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ANGEWANDTE FORSCHUNG

Development of a Reconceptualization of Archetype Theory

Report to the IAAP

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1 Introduction

> "The discomfort I am talking about can assume various forms: that of an uneasiness with some unsolved contradictions in analytical psychology itself; that of a refusal of the constant turning into ontology of the origin of the metaphorical language of analytical psychology; that of a refusal of the typical ahistorical suspension typical of analytical psychology that never established any fruitful exchange with those problems of the philosophical, anthropological, and methodological thought which during the same years had appeared and established themselves; that of the suspicion caused by the divorce that analytical psychology continuously maintains towards those empirical observations coming from other fields of psychological research, or that, on the contrary, of the repudiation of it's all too easy syncretistic way of uncritically accepting everything, thus destroying the essential character of analytical psychology; that of the doubt about the distance between its theoretical hypothesis and their practical applications; that of a diffidence about a field which has never consistently faced a radical, or even pitiless, rethinking of its foundations; that of a nausea for the careless, superficial and uncritical use of the comparative method in the de-metaphorization of the images of fantasy or of dreams without any care for historical or cultural differentiation: that of the suspicion for all too easy a recourse to the therapeutic practice, or to a recourse to experiences either purely emotional, or of a dangerously parapsychological nature and thus banally suggestive; the discomfort, finally, of a repugnancy for a linguistic and hence theoretical carelessness in most of the scientific production which goes under the name of analytical psychology." (Trevi 1992, p. 356)

> "The recommendations I offer are … that we start to privilege doubt over certainty. … I just want us to stop trying to be right all the time." (Samuels 2017, p. 646-47)

The concept of archetypes is certainly an important one for analytical psychology, if not the most important. The formulation of a theory of archetypes which began in 1912 marks the split with Freudian theory and is the beginning of Jung's independent stream of depth psychology, albeit Jung's first use of the term 'archetype' was not until 1919. The concept has been controversial from the beginning, one reason being that we find contradictory positions in Jung himself concerning the archetype, which will be pointed out below.

If we go back to Jung's original formulations of the archetype, we do not find a consistent definition. So today we first have to ask the question: to what does the term archetype refer? Even though the concept of the archetype has to be considered as central to analytical psychology, from the beginning there has been controversy around its theoretical and empirical foundations. Jung always made great efforts to show that his conceptualization of the archetype was firmly based in biology (e.g., Jung CW 18, para. 1228)1. In recent years there has been intensive debate in analytical psychology, about the state and foundations of archetype theory. There have been many attempts to formulate new theoretical foundations for arguing for universal archetypes, but no fully satisfying theoretical conceptualization is at hand. As a consequence, there is no consensus on how archetypes are defined in contemporary analytical psychology. I agree with Mills who states:

> "Jung failed to make this clear. And Post-Jungian schools including contemporary Jungian movements have still not answered this most elemental question. As a result, there is no clarity or consensus among the profession. The term archetype is thrown about and employed, I suggest, without proper understanding or analysis of its essential features. … The most basic theoretical tenet of the founding father of the movement is repeatedly drawn into question within postclassical, reformed, and

[1] Jung is quoted throughout this text by referring to the Collected Works, volume and paragraph.

> contemporary perspectives to the degree that there is no unified consensus on what defines or constitutes an archetype. This opens up the field to criticism - to be labeled an esoteric scholarly specialty, insular self-interest group, Gnostic guild, even a mystic cult. Jungianism needs to rehabilitate its image, arguably to modernize its appeal to other academic and clinical disciplines."(Mills 2018, p.1)

As the concept of archetypes, together with the concept of a collective unconscious, can be called the core concept of analytical psychology, which distinguishes it from other schools of psychotherapy and psychoanalysis, the confusion about the definition is an intolerable situation. There is a strong need to redefine and re-conceptualize archetype theory, so that analytical psychology can make use of a generally accepted theory, which is in accordance with contemporary insights in other disciplines, namely biology, genetics, psychology, anthropology, cultural studies and the neurosciences.

Despite these inconsistencies, we find, beginning with Jung and continuing throughout the practice of analytical psychology, a typical use of the concept, which is based on an understanding of archetypes as universal patterns producing meaning and guiding development. This is the basis for the practice of Jungian psychotherapy which counts on the fact that, through a special relationship like the analytical one, archetypes will constellate and will guide the process of therapeutic development, and that these archetypes can be found in every human being. Seen from this point of view, the defining element of universality becomes the most central for the archetype concept and it becomes clear why Jung made enormous theoretical efforts to secure this element and why he relied on biological explanations to do so. Now for more than two decades this biological explanation of how archetypes come about has been seriously called into question, and Jung's viewpoints of innatism and preformationism have been demonstrated to be refuted. This results in the situation that even recent approaches cannot satisfactorily explain the universality of such complex archetypes. Yet the theory and practice of analytical psychology are based on the belief that the whole set of universal archetypes can be found, at least as a potential, in every human being. This creates a serious situation, the theoretical foundations for the practice of analytical psychology have collapsed. Not enough with that, it seems to me that large parts of the community do not even care about this situation or have only limited awareness of it.

In my opinion, analytical psychology is currently being confronted by the problem of being founded on a concept, for which the original explanatory theory has evaporated. The question to be answered is: How do these patterns, that we call archetypal, and on which we base much of our theory as well as our clinical practice, come about – and what actually are they, how can they be defined, what do they contain, what are their effects etc.?

Some schools of Jungian therapy might say that the concept of archetypes in the aforementioned sense is not so fundamental to the practice of analytical psychology, and that there are many Jungians who do not even use the concept anymore. That may be so, but would then raise the question of what differentiates these practices from other schools of psychodynamic psychotherapy.

Some schools, such as archetypal psychology, for example, might not even see a problem here. Interestingly, an argument based on a transcendental definition of archetypes, would give a coherent explanation for the existence of even very complex archetypes, if the basic assumption is accepted that there are more factors influencing reality than just the causal

factors of classical physics, or, to be more precise, of the deterministic model of sciences. It would mean accepting the view that the archetypes influencing the analytical process come from a transcendental sphere and would place Jungian therapy in the field of religious practices, which I must admit makes a lot of sense (see Roesler & Reefschläger 2022).Nevertheless, there is an ongoing debate among Jungians attempting to solve the problem formulated above in a way that would allow us to preserve the concept of archetypes, while maintaining a place for it in the field of normal science.

For Jung, his theory was not to just a theory, but a strong belief, based on his personal inner experience, which could not only explain individual psychological development, but became something like a "Welterklärungstheorie" (world explanation), which could explain the similarities and differences of peoples and cultures, yes, even the development of mankind. As a consequence, the conceptualization of archetype theory he presented contains far-reaching statements and claims regarding matters in anthropology, prehistory (or paleoanthropology), religion, comparative mythology, etc., which, as I will demonstrate, are based on highly problematic theories established in the 19th century which were incorporated into analytical psychology and are still continued today. It seems as if in the decades since Jung there has been no updating of these ideas and theories inherent in archetype theory in relation to the development and contemporary state-of-the-art of disciplines like anthropology, comparative mythology, comparative religion, prehistoric studies etc. Sometimes it appears as if analytical psychology had totally lost contact to these disciplines so important for the ideas contained in archetype theory. This neglect results in a widespread ignorance of the developments in the respective disciplines, which amounts, lastly, to a certain arrogance, as if other sciences had nothing to do with analytical psychology or could easily be ignored. In so far, the discomfort stated by Trevi (1992), quoted at the beginning of this introduction, although it may sound harsh, still provides a correct picture of the situation of analytical psychology. As a result, it can be stated that analytical psychology has lost contact to the wider field of academic sciences relevant for its topics and is caught in a state of isolation. It is also interesting to note that this state of affairs has been criticized as early as the 1970s, and even many of the points that will be presented in this investigation have been made for decades, seemingly without much effect on the larger community. It seems to me that this is due to a certain attitude which started with Jung but has continued since then in the Jungian community.

Of course, for many developers of scientific theories their ideas are supported by strong beliefs, but in Jung this is heightened to an extreme. Even though he points out the fact of the 'personal equation', I want to argue here that in his own case he was not able to consider that and to distance himself, at least from time to time, from his own ideas, to at least try to take a neutral stance, what in academia is called scientific skepticism, and to discuss it openly - in the sense of being open for criticism and for corrections. It became a creed, and consequently when he presented his ideas to the public, it came close to a preaching. This has to do with the fact that Jung's ideas and concepts were so closely linked with his own experience. For

him it was a kind of truth, and thus he was not interested in finding evidence for his theories or was unwilling to accept criticism.
My hypothesis is that in his time and still today followers are drawn to his ideas because there is a certain need to have a belief in such a 'holistic' creed. There is no doubt that there has been a lot of publication activity on these problems, especially in Jungian scientific journals (namely The Journal of Analytical Psychology), and many of the points I am making here have already been discussed; e.g.:

> "Jungian analysts cannot get around the 'Jung cult' argument started off by Richard Noll (1994) simply by attacking its author. … But there is sometimes an excessive deference shown in Jungian groups to analysts in general, and to senior analysts in particular, a deference which it is quite often hard to justify in terms of the productivity and output of those individuals. … This means that something has got attached to seniority, chronological seniority, as much as professional seniority, which urgently needs critique." (Samuels 1998, p. 17)

Yet, my impression (e.g., from teaching at training institutes and in the Router Program of the IAAP) is that outside of more academic circles in the Jungian community concerned with science and research, there is still a strong tendency to idealize Jung and to cling to very classical positions in AP and to a conservative reading of Jung's works. It seems to me that the differentiated state-of-the-art in critical publications has not had a strong reach into the Jungian community. It seems to me to be even worse: there seems to be an attitude of superiority, which can be found in Jung as well as in many of his followers today, in the sense that their model of how the psyche develops and how psychotherapy works is ultimate, as if they were in possession of the truth about the psyche. This has led to reification and ontologizing of concepts which originally were just a personal experience of Jung's. This attitude of superiority has also led to a tendency to isolate themselves against insights, findings and ideas from other disciplines2.

From my point of view analytical psychology as a scientific theory as well as the theoretical culture within the Jungian community are in a bad state: even after more than 100 years there is no consensus about even the definition of the core concept of analytical psychology, the archetypes, and the debate about this concept refers frequently to completely outdated theories and concepts from psychology and elsewhere. Again, this has been pointed out by Jungian scholars for many years:

> "We run the risk of working with increasingly outdated and inaccurate models of the human mind if we avoid subjecting them to the rigour of scientific scepticism, for fear that the numinous or spiritual will be destroyed by the scientific advances in understanding the way the mind actually works, the ways in which it processes information." (Knox 2001, p. 616)

There is general agreement that Jung's works are full of contradictions, and a lot has already been written about that:

> "Jung repeatedly insisted that he did not have a theoretical system of his own. In so far as he claimed that his ideas were not theoretical abstractions but founded on his own direct clinical experience, he did not feel compelled to present them as a neat system with their own logical coherence, which

[2] In a new German publication (Loomans 2020) this attitude of superiority, of being in possession of the truth, is investigated by comparing Jung's psychology and Karlfried Graf Dürckheim's Initiatic Therapy.

> would enable his readers to access them easily. This close relationship between Jung's theory and practice could account for the fact that his writings are accepted as lucid and indeed inspirational by some and as incomprehensible by others." (Papadopoulos 1992, p. XIV)

As this author points out, Jung on the one hand relied heavily on his own inner experience in formulating his psychological ideas and concepts, while on the other hand he was desperately trying to avoid being seen as a philosopher, as he wanted to be regarded a scientist. Consequently, many of his ideas and concepts are presented by him in the fashion of nomothetic statements, as empirically grounded insights, if not truths (e.g., the anima is said to be an objective fact). There is no doubt that Jung was innovative in how he introduced introspection into the forming of a psychological theory, but his repeated claims that his findings should be regarded as hard empirical facts frequently leads into aporia. My impression is that this tendency, to be not aware of the inherent tensions and contradictions in analytical psychology, continues up to the present day. Many Jungian authors, when confronted with this problem, argue that this was a conscious and deliberate strategy by Jung and indeed ingenious, and that his paradoxical statements should be seen as a new form of doing psychology. From my point of view, this is a glorification of Jung's inability to clarify basic epistemological and scientific standpoints. What I am trying to point out in the following is that there is confusion on Jung's side, that this is not a systematical strategy in Jung's writing but a failure to see the limitations of his own thinking, and that the eternal glorification of Jung's in the sense that he was deliberately – and indeed ingeniously - paradoxical has to be regarded as a defensive strategy in the Jungian community. I would argue that this attitude in Jung as well as in the community, is at the root of the still ongoing and severe theoretical problems that we have today in analytical psychology, the lack of a consensual definition of archetypes, a resistance against considering theoretical developments and insights in relevant disciplines, and against a testing of the theory in the sense of research. My hypothesis is that at the core of all this is a certain attitude, which again can be connected with Jung's personality, but which continues in Post-Jungian developments up to the present day. My impression is that this style of doing science in Jung formed attitudes and a certain mindset in the community of Jungians. This attitude includes: a) the belief that in the development of the person everything comes out of the individual, which b) leads to the consequence that there is, in Jung as well as in analytical psychology today, the lack of a coherent theory of interpersonal relationships and their impact on development, and especially how this relates to archetype theory, which has consequences for clinical work. This attitude includes c) a lack of willingness or even resistance against testing one's own theories (because they are regarded as an inner truth) by confronting them with insights from other disciplines, which d) has as a consequence that the method of gaining insight as well as the resulting theories become unscientific. As a consequence, it is, at least from my point of view, no wonder that Jungian psychology has been more or less ignored by academical psychology, which is often interpreted by Jungians as bad will, whereas to me as a scientist it makes, at least partly, a lot of sense. This state of affairs is in direct opposition to the strategy proposed by the IAAP to reconnect analytical psychology with academia, manifested, for example, in a series of joint conferences with universities all over the world.

My intention here is not to focus on Jung as a person, as any other human being he was subject to inner contradictions, conflicts, ambivalences and blind spots. These aspects are only relevant in so far as they have an impact on the forming of theory in analytical psychology in his time, with consequences up to the present day. This has to be made the subject of discussion even more because of tendencies to idealize Jung as a person, which are still present within the community of Jungians, and which make it more difficult to confront the problematic aspects in the theory and practice of Jungian psychology. This can be seen, for example, in the fact that we are, in comparison to Freudian psychoanalysis, still more occupied with Jung as a person than with his theory. It is actually not customary in Jungian circles to speak about Jungian psychology as a scientific theory.

However, it would be important to see Jung's work as a compilation of scientific concepts and ideas which can in general be criticized. This means, we have to differentiate between the person and his assumed intentions on the one side, and theoretical elements, schemas and figures of thought that can objectively be found in Jung's works. There has in fact been an extensive discussion in recent years about the foundation of Jung's thinking and his concepts, but it seems to me that the reach of these discussions in the international Jungian community should not be overestimated. I can say at least for the German speaking countries that publications on Jungian concepts do often not take into account contemporary insights in relevant disciplines, and teaching at the institutes is often restricted to very classical positions without any reference to recent developments; and from my experiences with teaching in other countries I have often had the impression that there the situation is even worse.

Background and outline of this investigation

The problematic state of affairs in analytical psychology described above culminates in archetype theory, which is, on the one hand, the central element of analytical psychology, but at the same time the most controversial, its very foundations put into question, even lacking a consensual definition in the community. This background given, the IAAP considered it to be an important project to receive an overview of the debate around the concept of archetypes, and to move the theoretical discussion towards a clarification, eventually by reformulating the concept of archetypes. I was commissioned to conduct this investigation, which was generously supported financially by the IAAP's academic and research committee. The report presented here summarizes the findings and attempts to formulate recommendations for a revised theory of archetypes as well as for future research in the field.

As a first step, a survey was conducted with experts in the field of archetype theory, asking them to provide answers to a number of questions regarding definition of the concept, explanatory theories of how archetypes come about, whether they are seen to be universal etc. The results of this survey are presented in Chapter 2 together with other definitions and explanatory concepts for archetypes by scholars of analytical psychology. To anticipate the results here, it can be concluded that the lack of a consensual definition in the community is confirmed; a variety of different definitions and explanations of archetypes was presented which are, at least partly, incompatible.

This lack of a consensual definition for the concept archetype presents a major problem within analytical psychology. Henceforth, I will not attempt to provide said definition here. The described problem is the reason behind this investigation. In my book "The archetype concept of CG Jung" (Roesler 2021; original German version 2016) I have summarized what could be called the classical or mainstream position in Jungian psychology. Although I have pointed to some contradictions and problems in Jung's works concerning the archetype in that earlier publication, it focusses on the development of the concept in the mainstream of Jungian psychology as well as on the applications.

In contrast to this earlier work, as a next step in the present investigation I will trace Jung's ideas regarding the archetype throughout his works in the sense of a historical and critical analysis. The aim is to reconstruct the lines of thought that are inherent in Jung's theories around the term archetype. This analysis will be based on Jung's own statements in the Complete Works as well as in other publications (e.g. Memories, Dreams, Reflections). In my earlier above-mentioned work I also give an account of the historical development of the concept in Jung's thought (see also Shamdasani 2003). In the following I will only briefly touch upon these historical steps, in so far as they are relevant for the theoretical development of the concept. Following this theoretical reconstruction - which is in some sense also a deconstruction - the background of Jung's thoughts will be illustrated by referring to influential theories and authors that were of importance for the development of Jung's thoughts.

In this context, it might be interesting for Jungian readers to know that starting in 2012, a team of researchers at Vienna University is now compiling a historical-critical Sigmund Freud Edition, which has already produced some insights in how some of the central concepts of Freud's psychoanalysis came about (Diercks & Skale 2021). This historical-critical method was first applied to the works of Nietzsche, starting in the 1960s, whereby Colli and Montinari edited the complete works of Nietzsche (1967ff.) together with a critical commentary. This was then followed by the critical commentary edited by the Heidelberg Academy of Sciences in 2012. The same method was applied to the critical edition of the works of Heidegger. I think such a historical-critical investigation into the works of Jung, which would include a critical commentary on how the texts came about, what were the influences etc., is highly needed. The investigation presented here attempts to provide such an analysis with a special focus on archetype theory, but, of course, there may be much more to be said about this central element of Jung's thought.

Following the reconstruction of Jung's thoughts and ideas around the concept of archetypes in his works, the criticism which has been directed to this theory and the problems inherent in the concept are summarized, bringing together critics from inside as well as from outside of analytical psychology (Chapter 3).

As a major conclusion from this analysis I will demonstrate that inherent in Jung's theory of archetypes are actually four different theories, which in Jung's writings are confused with each other, and this confusion can serve as an explanation for many of the problems outlined above. So as a step towards clarification of the concept I recommend to differentiate these four theories from each other as they are dealing with separate fields of knowledge. Jung attempted throughout his life to bind these four theories together into one coherent

theoretical account, which, as I will point out, is impossible, and is the reason behind the problematic state of archetype theory we are confronted with today.

These theories in Jung make statements and claims referring to the fields of biology, anthropology, history of religion, paleoanthropology, and comparative mythology. So, in the following chapters I will deal with these disciplines in detail, I will try to summarize the state of the debate in the respective discipline and confront it with Jung's statements and claims in his theory of archetypes. At the end of each chapter, I will summarize the conclusions resulting from this confrontation. In general, it can be concluded that large parts of classic archetype theory have to be regarded as refuted, as they are not in line with the insights and findings in the respective disciplines.

In the final chapter I will point out what will remain of archetype theory as well as directions for future research in analytical psychology.

2 Definitions of 'archetype' in Analytical Psychology

In this chapter, I will provide an overview of definitions of the concept archetype, as they were presented in analytical psychology in the last decades. The aim is to demonstrate that there is a lack of consensus regarding the definition of this most central concept. This is further demonstrated with the results of the survey.

Historically, there is a strong tradition in analytical psychology that authors follow Jung's argumentation, in that they view archetypes as being rooted in biology. Namely, that they are instincts or patterns of behaviour - a viewpoint which is often linked with the notion that archetypes are genetically transferred. An outstanding protagonist of this viewpoint is certainly Anthony Stevens, who linked Jung's theories around the archetype with his concept of evolutionary psychiatry:

> 'Archetypes are understood as neuro-psychic units, which are formed through natural selection and which are responsible for the determination of behavioural characteristics as well as for the typical human emotions and cognitive experiences' (Stevens & Price 1996, p. 6).

Gordon (1985) provides a comprehensive account of this viewpoint, while fully adopting Jung's biological viewpoint, albeit pointing out the confusion that Jung created through his casual use of terms:

> "There is frequently a confusion between the first three mental functions - archetype, image and symbol - and Jung himself has often been guilty of encouraging such confusion, at least as far as his casual use of these terms is concerned. .. Thus, when he wrestled with the concept of the archetypes he described them as psychosomatic entities whose physical expression is instinctual action, reaction and behaviour, while their mental expression is in the form of images. He insisted that the archetype, unlike the image, is non-perceptual, is irrepresentable, is a psychoid factor and therefore cannot as such reach consciousness. And in his later writings Jung insisted again and again that the archetypes are devoid of form and content until personal experience has rendered them visible. Furthermore, he emphasized that when archetypal contents -that is, archetypal images and affects - detach themselves from the unconscious matrix, they are experienced first of all in and through projection. Hence, they are first of all perceived as if they belonged out there to something or somebody in the external world. … It seems that he already then (1938) recognized the considerable kinship between his thoughts about instincts and archetypes and the ethologists' concepts of the pattern of behaviour and of the innate release mechanism (IRM), concepts which link the biological to the psychological functions. … They seem to exist as potential images which then programme the organism to respond in a certain manner when it encounters an object or situation that matches this potential image." (p. 120)
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> "… descriptions abound of the various archetypal themes and personages, their principal characteristics being their universality, both in space and in time, that is, in cultures and epochs; there bipolarity, and the particular affects that they provoke, such as fascination, a sense of something numinous, or of oneself being processed by something or someone. They are also marked by an all or nothing quality, so that whatever is archetypal is experienced as stark and powerful and absolute." (p. 125)

Humbert (1988) gives a sketch of the interesting idea that Jung was hinting at an idea which was not yet available to Jung's time; the concept of information, while at the same time adopting Jung's view that archetypes are innate:

> "The role Jung attributed to archetypes is perfectly intelligible, if one uses the concept of information theory: (1) archetypes condition, orient, and support the formation of the individual psyche according to a plan that is inherent to them; (2) whenever the psyche is disturbed, archetypes intervened by considering information received either from the psyche itself or from the environment; (3) archetypes ensure an exchange of information between the psyche and its surroundings. Let me add

that for Jung, and he was not hesitant on this point, the archetypes are inscribed in the body in the same way that all organs of information are inscribed in living matter. This implies, among other things, that archetypes are genetically transmitted." (p. 101).

I would also like to add a definition provided by Michael Fordham, which does not really depart from Jung's notions but expands the archetype concept to the development of the child:

> "By conceiving archetypes as dynamic structures closely related to drives, expressed in impulses originating in neurophysiological structures and biochemical changes, the theory of archetypes brings body and psyche together and makes Jung's thesis asked to their bipolarity particularly meaningful: the archetypes are unconscious entities having two poles, the one expressing itself in instinctual impulses and drives, the other in spiritual forms. In contrast to the instinctual drives, which are relatively fixed and few in number, the spiritual component has wide and flexible application. Transferring this idea to childhood and starting from the spiritual components, the theory of archetypes means that a predisposition exists in the child to develop archaic ideas, feelings and fantasies without there being implanted in him or without his introjecting them. These can be influenced and refined by education which, in turn, as feedback systems provide suitable imagery through which the unconscious archetypes can find expression in consciousness. It is on the spiritual hold that parents build when they mediate the culture pattern of the society in which the developing organism is living." (Fordham 1976, p. 5)

In "Jung Lexicon" Daryl Sharp (1991) provides the following definition, in which he includes quotes from Jung's works:

> "Archetype. Primordial, structural elements of the human psyche. (See also archetypal image and instinct.)
> Archetypes are systems of readiness for action, and at the same time images and emotions. They are inherited with the brain structure-indeed they are its psychic aspect. They represent, on the one hand, a very strong instinctive conservatism, while on the other hand they are the most effective means conceivable of instinctive adaptation. They are thus, essentially, the chthonic portion of the psyche . . . that portion through which the psyche is attached to nature.["Mind and Earth," CW 10, par. 53.]
> Archetypes are irrepresentable in themselves but their effects are discernible in archetypal images and motifs.
> Archetypes . . . present themselves as ideas and images, like everything else that becomes a content of consciousness.[On the Nature of the Psyche," CW 8, par. 435.]
> Archetypes are, by definition, factors and motifs that arrange the psychic elements into certain images, characterized as archetypal, but in such a way that they can be recognized only from the effects they produce.["A Psychological Approach to the Trinity," CW 11, par. 222, note 2.]
> Jung also described archetypes as "instinctual images," the forms which the instincts assume. He illustrated this using the simile of the spectrum.
> The dynamism of instinct is lodged as it were in the infra-red part of the spectrum, whereas the instinctual image lies in the ultra-violet part. . . . The realization and assimilation of instinct never take place at the red end, i.e., by absorption into the instinctual sphere, but only through integration of the image which signifies and at the same time evokes the instinct, although in a form quite different from the one we meet on the biological level.["On the Nature of the Psyche," CW 8, par. 414.]

INSTINCTS	**ARCHETYPES**
infrared ———	——— ultraviolet
(Physiological: body symptoms, instinctual perceptions, etc.)	**(Psychological:** spirit, dreams, conceptions, images, fantasies, etc.)

> Psychologically . . . the archetype as an image of instinct is a spiritual goal toward which the whole nature of man strives; it is the sea to which all rivers wend their way, the prize which the hero wrests from the fight with the dragon.[Ibid., par. 415.]
> Archetypes manifest both on a personal level, through complexes, and collectively, as characteristics of whole cultures. Jung believed it was the task of each age to understand anew their content and their effects.

We can never legitimately cut loose from our archetypal foundations unless we are prepared to pay the price of a neurosis, any more than we can rid ourselves of our body and its organs without committing suicide. If we cannot deny the archetypes or otherwise neutralize them, we are confronted, at every new stage in the differentiation of consciousness to which civilization attains, with the task of finding a new interpretation appropriate to this stage, in order to connect the life of the past that still exists in us with the life of the present, which threatens to slip away from it.["The Psychology of the Child Archetype," CW 9i, par. 267.]

Archetypal image. The form or representation of an **archetype** in consciousness. (See also **collective unconscious.)**

[The archetype is] a dynamism which makes itself felt in the numinosity and fascinating power of the archetypal image.["On the Nature of the Psyche," CW 8, par. 414.]

Archetypal images, as universal patterns or motifs which come from the collective unconscious, are the basic content of religions, mythologies, legends and fairy tales.

An archetypal content expresses itself, first and foremost, in metaphors. If such a content should speak of the sun and identify with it the lion, the king, the hoard of gold guarded by the dragon, or the power that makes for the life and health of man, it is neither the one thing nor the other, but the unknown third thing that finds more or less adequate expression in all these similes, yet-to the perpetual vexation of the intellect-remains unknown and not to be fitted into a formula.["The Psychology of the Child Archetype," CW 9i, par. 267]

On a personal level, archetypal motifs are patterns of thought or behaviour that are common to humanity at all times and in all places."

Nancy Krieger's (2019) highly comprehensive account of the different definitions, as well as her attempt to create some order, is a more recent example of an author who closely follows Jung's classical definitions. While the above quoted definitions are more than 30 years old, this is also a good example for the tendency to uncritically adopt Jung's different definitions and argumentations around the archetype concept in contemporary publications:

"Jung defined archetypes in many ways throughout his work. The definition most related to both the body and to contemporary neuroscientific investigation is the bipolar nature of the archetype as instinct and archetypal image. This is most clearly stated in Jung's monograph on synchronicity with reference to the constellation of a complex: "The conscious then comes under the influence of unconscious instinctual impulses and contents. These are as a rule complexes whose ultimate basis is the archetype, the 'instinctual pattern'." (Jung 1952a, para. 856, underline added). Later, Jung wrote "Because of its instinctual nature, the archetype underlies the feeling-toned complexes and shares their autonomy." (Jung 1958b, para. 847) The instinctive nature of the archetypes is also mentioned in several other articles (Jung 1913/1926/1943, para. 111; 1956, para. 1257-8; 1958a, para. 755).

Archetype as instinct – image

Jung gave many definitions of archetypes. At different times, and in different writings, he said that archetypes are "forms" or "categories" (Jung 1927/1931, para. 342)—a system of classification similar to the division of life forms into family, genus, species and so forth. They are simply themes (Jung 1947/1954, para. 401).

At the next level of complexity, this classification scheme has an order to it. The categories form patterns, revealing "a kind of pre-existent ground plan" (Jung 1921/1971, para. 512). Like the blueprint of a house, it shows the basic supporting structures, which are "symbolic formulae" (Jung 1921/1971, para. 625) similar to chemical formulae, but with symbols in the place of atoms. He called them "structural dominants" (Jung 1942/1948, para. 222n). I understand this to mean that they are structures, or structuring elements, which predominate, they stand out. Like the framework of a house—you first put up the big beams that will support the rest of the construction.

They form "patterns of functioning" (Jung 1938/1954, para. 152) and "patterns of behaviour" (Jung 1957/1959, paras. 549-50; 1912/1955, para. 224; 1919, paras. 270, 274, 398; 1947/1954, para. 398), which are the two terms he used most to describe archetypes. We discern patterns in the way people function and behave. This implies that there is some reason, some ordering agency behind these actions, something that determines how people act.

He compared such patterns to the "axial system of a crystal … the invariable geometric proportions underlying it" (Jung 1938/1954, para. 155). We can see the crystal structure, but we do not so easily

see why the crystal forms in a certain way. Nonetheless, there is an order which is very basic to the nature of the matter making up the crystal.

He said that archetypes are "factors and motifs that arrange the psychic elements into certain images" (Jung 1942/1948, para. 222n2) and "factors responsible for the organization of unconscious psychic processes" (Jung 1952a, para. 841) These last two definitions stress that they are responsible, and have consequences, for how we understand and organize our perception.

Jung used the term 'image' to mean not only a visual picture, but to include all the senses—smell, sensation, sound. Archetypes are even more than these multi-sensation images; he called them "dynamic images" (Jung, 1917/1953 para. 184), implying intrinsic energy and even purpose.

Archetypes are "empirically derived postulates" which "manifest themselves only through their ability to organize images and ideas, and this is always an unconscious process which cannot be detected until afterwards" (Jung 1947/1954, para. 440). A postulate is a hypothesis, a supposition, a statement that you propose to be true. This hypothesis is arrived at through observation ("empirically derived postulates"). However, Jung then says that they "manifest themselves", which implies that they are active, autonomous entities, and gives the impression of will—archetypes choose whether and how to act through organizing our thinking and perception.

Jung linked archetypes to instinct or evolution. He called them "instinct's perception of itself" (Jung 1919, para. 277, italics in original). They are "representations of the meaning of the instinct" (Jung 1947/1954, para. 398) – So not only the instinct, but the meaning of the instinct, and hence of the need behind the way certain instincts have led to survival of humans. They are our "inborn mode of psychic apprehension" (Jung 1921/1971, paras. 624-5), in other words our innate way of perceiving. There is much debate in modern Jungian circles about whether the archetypes are innate, hard-wired into the psyche and the body at birth, or whether the are acquired. Moreover, if they are acquired, how much comes from culture? In his quite early writing, Jung defines them clearly as inborn, at least in part. He called them "aptitudes" (Jung 1927/1931, para. 339), which are innate abilities, and "an irrepresentable factor, a disposition" (Jung 1942/1948, para. 222). The archetype itself cannot be represented, only its effects (like the crystal structure mentioned above). Archetypes form "a system of readiness for action" (Jung 1927/1931a, para. 53)—an instinct could be described in the same way. Ultimately, archetypes are "living psychic forces" (Jung 1940/1951, para. 266), "not mere objects of the mind, but are also autonomous factors, i.e., living subjects" (Jung 1952b para. 758) which have an "invariable nucleus of meaning" (Jung 1938/1954, para. 155). These definitions view archetypes as independent, purposeful entities, similar to spirits or gods.

Having so many definitions has led to much confusion about what Jung meant by archetypes, but I don't think you need to choose one definition over another, it depends on what characteristics you are referring to. In my opinion we need to make clear in our writing and thinking the distinction between the archetype itself and the archetypal image. They are two very different things. The archetype itself is very much related to nature and our place in it, our bodies; human babies are born almost helpless, needing to be fed, cared for, loved. Less visible but also very important, we need structure, borders, rules, laws. Hence, the ubiquitous Mother and Father Archetypes. How these are represented in a culture forms the corresponding archetypal images. And how they play out in an individual life gives the corresponding Mother and Father Complexes. I would prefer that we use other, more descriptive terms for these, since there is always confusion with the actual mother and father.

Thus, our basic human nature, with our corresponding needs, could be seen as "a kind of pre-existent ground plan" which can create "forms" or "categories". To a large extent these determine the ways we "function", our "patterns of behaviour". They are "responsible for the organization of unconscious psychic processes". This falls short of identifying them as "autonomous … living subjects" which "manifest themselves" implying a form of volition, but I accept that Jung and many Jungians may agree to this. The corresponding archetypal images, the Great Mother, the Hero, the Divine Child to cite just a few, may be more or less related to a specific culture.

Archetypal image

By archetypal image, Jung meant not only image as a picture, but included "patterns of functioning" and a "preconscious psychic disposition" in his definition, making it a global experience, which places the current situation in context. (Jung 1938/1954, para. 152) He said that the unconscious psyche functions more in such images than in words. He spoke first of the archetype as a 'primordial image'.

Considering the archetype as instinct and image, the image is the opposite pole of the instinct and as such represents the goal of the instinct, the state the organism would be in if the instinctive action was successful." (Krieger 2019, p. 756-58)

Another example:

"Unlike Freud, Jung believed that the unconscious was not just the seat of sexual and aggressive instincts and repressed wishes. Through his work with the association experiment, the study of myths and fairy tales, and the study of fantasy products of psychotic patients, Jung reached the conclusion that there was a layer of the unconscious which contained universal images, patterns of behaviour and modes of perception which were accessible to the whole of the human race and to the animal world, as well. These specific patterns of perception and behaviour which crystalize in consciousness in the form of symbols he named archetypes (after Plato) and suggested that these were "empty purely formal…a possibility of representation given *a priori*" (Jung, 1954, para 155, p.79). Further on, Jung stressed that "the representations themselves are not inherited only the forms…"(Ibid.) In this sense, Jung believed that the archetype-as-such is unknowable and "irrepresentable" (Jung, 1947, para 415, p. 215).We come to know the effect of archetypes through the impact they have on consciousness due to their "ability to organize images and ideas" (Jung, 1947,para 440, p. 231). The archetype in Jung's view "can be named and has an invariable nucleus of meaning – but always only in principle"(Jung, 1954, para 155, p. 80). Anything we say about the archetype remains a visualization, which is made possible by the current state of consciousness in a respective moment. Archetypes are numinous and are associated with strong affective responses. … So, archetypes-as-such while being universal are also unknowable; although archetypes have a profound impact on consciousness and the life of the individual, they do not belong just to the psychic sphere and seem to be given *a priori* as a possibility or a form without content (similar to Plato's view that psyche and soma are integrated in one whole)." (Sotirova-Kohli 2014, p. 4-5)

In comparison, the following definition provided by Patricia Berry in 2021, accessible on the website of the IAAP (https://iaap.org/archetype-2/), is much more careful in the claims made:

"Archetype is certainly one of the first notions we associate with the work of C.G. Jung.
However, what Jung meant by this notion can be quite confusing. Part of the difficulty comes from his having used the term in a number of different ways, at different times, in varying contexts. Jung did not think in a typically linear, logical manner the way many other serious thinkers had done. …We certainly *do* find ourselves, in current Analytical Psychology, within a field very much alive with multiple perspectives and new ideas.
The broadest and most useful understanding of Jung's notion of archetype overall is as metaphor -- an "as-if," a possibility or potential-- which can be richly explored from a number of different perspectives. This metaphor has, however, something of an undercarriage as well — which is not meant to imply anything pre-existing, rigid, or fixed as with Plato's forms, e.g., Jung explicitly specified he was not doing philosophy as was Plato. Rather Jung was, he says, doing psychology. So, by archetype he meant something empirical, alive, phenomenal in that it reveals itself only in and through living processes.
Jung uses a number of metaphors for describing such archetypal possibilities. Each example brings with itself different imagistic implications, and each metaphor can be commented upon best by reference to yet another image or metaphor.
One of Jung's ways of imagining the archetypal is as when a crystal is dipped in solution such that the delicate three-dimensional structure of the crystal is revealed. For Jung motifs, mythemes in folklore, literary tales or productions are also potentially archetypal. Another image Jung uses for archetype is as though it were a river-bed dug deep by experience; with yet another, he describes the archetype as though it were a psychic organ, or like an "instinct's perception of itself." One might well add other potential examples - including life themes, typical forms of experiencing, modes of thinking, and so on. There are many possibilities.
Yet another, more obvious way of describing archetypes, is the more typologically personified- e.g., the Great Mother, the Wise Old Man, the Warrior… and so on. This more typified way of thinking about archetypes is emblematic and concrete but/and has its own kind of usefulness.

> Sometimes, such uses are clarifying and helpful; other times less so depending on how one is using them and what one is doing with them. For denoting types of persons or personalities within a group or business association, such personifications can be helpful. For other situations they may be too simplistic or simply typological, in ways that lose or obscure individuality, particularity and complexity. Jung sometimes thought in one way, sometimes in another, depending on context and situation. But whatever the case, primary for Jung was that the archetype was not only a simple image in action, but it was also always bi-polar. Jung thought in opposites. It was key to his method and part of his strength. Psychologically speaking, thinking in opposites laid the ground for ongoing awareness of ambivalence and ambiguity deep within the very notion of archetype itself. This serves us well as a forerunner to an increasing sense of psychological differentiation and complexity.
> … Another place where a frequent tangle occurs in thinking archetypally has to do with the place of instinct. For Jung, behaviours at an instinctual level are at times notable factors, but they are never the **sole** cause of archetypal phenomena. For Jung, the archetype is spiritual. As an "image of instinct" Jung sees archetype as "a spiritual goal toward which the whole nature of man strives…" (Jung 1960) A good way to keep focus on the archetypal levels of whatever phenomenon is being considered is to see it primarily as metaphor. In this way one need not worry about inflating or claiming too much. And, at the same time, the practice may allow the most possibilities and broadest reach. What is not meant by metaphor is to see things on an only singular, or literal level. If we keep this in mind, the notion of archetype will and does continue to serve us well in the discipline of Analytical Psychology."

The above-mentioned definitions attempt to defend Jung's statements and viewpoints. In "CG Jung's archetype concept: theory, research, applications" (Roesler 2021) I have attempted to provide a comprehensive overview of this classical position in archetype theory and its developments in the debate in analytical psychology. In contrast to this, a Post-Jungian definition, provided by Andrew Samuels (1990), gives following account:

> "Archetypal theory has also been rethought. A radical change has taken place in what we require of an image before we call it archetypal. Archetypal images no longer have to be large, impressive, or decorous; **what is archetype is to be found in the eye of the beholder and not in a particular image itself** (highlighted by C.R.). We can set aside preconceived schemes or hierarchies of archetypes; the archetype of experience is a state of mind. … We do not have to get hung up on the question of transpersonal, invisible, unknowable, noumenal, skeletal, crystalline, hypothetical so-called structures, held to be somehow deeper than ordinary human experience and imagery. … You will gather from these remarks that post-Jungian analytical psychology is part of a post-structural intellectual matrix - or, rather, that when I employ the term post-Jungian, I am deconstructing analytical psychology. The key terms now are interaction: of psychic themes, pictures, images, behaviour, emotions, instincts; and relativity: archetypes in the eye of the beholder, a dethroned self, and democratic individuation. En passant everything I have been saying applies clinically: microscopic examination of the transference countertransference interactions and befriending the image in all its particularity and specificity are both reactions to the same deficiencies in classical Jungian clinical technique. The post Jungian therapy of analytical psychology means that it is no longer necessary for analytical psychology to march in fours (four functions, four stages of life, four phases of analysis, for forms of the feminine psyche) or in reliably computable patterns of opposites." (Samuels 1990, p. 295)

In contrast, George Hogenson (2009) attempted to not depart too far from Jung's original definitions and preserve a certain link to biology, as well as the behavioural sciences; he thus proposed understanding the archetype as an "elementary action pattern" (Hogenson, 2009, p.325). Hogenson played an important role in the development of what could be called the emergentist position in archetype theory (for a detailed account see chapter "Biology").
Jungian scholar Pietikanen (1998) suggested a radical departure from the discussion about innateness and proposed that, with the help of Cassirer's approach, archetypes could be understood as "culturally determined functionary forms, organizing and structuring certain aspects of man's cultural activity" (Pietikanen, 1998, p. 325).

Van Meurs (1990) provides an overview of the use of the term archetype in literary criticism, and mentions following interesting definition:

> "Northrop Frye acknowledged the influence of Jung on his theory of literary myths, and he borrowed the term archetype from him. But symbols, myths, and archetypes are for Frye strictly literary concepts. He means by an archetype atypical or recurring image … The symbol which connects one poem with another and thereby helps to unify and integrate our literary experience." (p. 243)

A perspective from object relations theory: Lambert summarized in Papadopoulos (1992, Vol. 2, p. 197)

> "… attempts to locate the archetypal experience in the context of object relations especially as they apply to early childhood development and the therapeutic situation. His definition of the archetype is characteristic of this approach: he accepts the archetype as a predisposed potential in the psyche to expect that real objects when presented to the individual can be experienced in accordance with certain forms, patterns, or images to be found in the average expectable environment. This average expectable environment is the term used by object relations theorists to account for the context of relationships with real objects. .. Lambert's contribution consists in combining these theories in a coherent whole. His innovative idea of an archetypal object, which is the product of a process archetypal image through object relations, seems to have significant clinical implications."

A survey among Jungian experts

To get an overview of the definitions that are currently circulating in analytical psychology, a systematic survey was conducted as part of the research project. In this survey experts from Jungian psychology, who have published texts on archetype theory, were asked to provide short texts to the following questions:

- What is an archetype? Please give a definition.
- Please give a list of the essential characteristics of archetypes in the sense of necessary elements.
- How are archetypes transmitted, how do they become part of or appear in the individual's psyche? If you believe that archetypes are universal, please give an explanation on how this universality comes about (e.g. transmission via biological/genetical pathways).
- Which concepts/entities would you call archetypal? Please give an overview of entities that you would include in a list of archetypes (e.g. symbols, rituals etc.).
- In which aspects is your definition of archetypes parallel with or different from Jung's conceptualizations?

In the following, definitions provided by the experts are grouped around recurrent themes or concepts in archetype theory. The quotes are presented without reference to an author, since in the context here they are regarded as representative for lines of thought in analytical psychology. An extended version with all the relevant quotes and examples can be found in the attachments.

Definitions, which generally argue that archetypes are very basic, typical patterns, predispositions and capabilities common to all men/universal; often there is a reference to cross-cultural similarities in art, religion, ritual, social practices provided as "evidence", or to the concept of anthropological universals

"A modern view of archetypes, much taken up within the SAP, is to understand archetypes as 'emergent' principles that come out of experiences that are common to all of us through our natural, early human experiences."

"Speaking personally, I have come see archetypes, as Knox describes, as early patterns of experience that structure our experience throughout life and are thus profoundly important and influential, in fact foundational. A significant element of the work of analysis is concerned with recognising these patterns, seeing how they emerged through the individual's particular experience, and how they continue to powerfully influence and indeed determine the individual's life."

"Archetypen sind allgemeinmenschliche Muster, Prädispositionen, Bereitschaften, Möglichkeiten des Funktionierens, Erlebens und Verhaltens." (Archetypes are general human patterns, predispositions, aptitudes, possibilities of functioning, of experience and behaviour.)

"…they provide structure to whatever is otherwise in the collective unconscious and mediate the entrance into consciousness of the material of the collective unconscious. […] I would therefore suggest that initially in Jung's theorizing the archetypes give structure to clinical phenomena that are related to psychotic phenomena in a manner somewhat analogous to the ways in which Freud's mechanisms give rise to neuroses."

"The archetypal representations concern various cultural forms, and patterns, seen in symbolic images, dreams, symbols, narratives, rituals, fairy tales, myths, and religion. The archetype can be triggered by a perception (e.g. in dreams) and leads to a disruption of the ego-functioning. … They include images, and stories how to deal with basic affects, and motivations."

"All human beings must pass during their life various developmental stages that need an orientation or re-orientation as birth, childhood, puberty, marriage, life itself or are challenged by life-changing circumstances as divorce, retirement, death etc. In these periods the ego-function, and protection mechanisms may weaken, and primary process mechanism are starting to take over. In this transitional period cultural forms or patterns may bring back meaning and help in the orientation process."

"[...] Supra-individual, collective patterns…., which appear independent from individual characteristics and from cultural or historical contexts. … A collective matrix of patterns in the unconscious. … This is based purely on phenomenology"

"The archetypal image can be amplified to collective mythology, whereby it is understood as traditional behaviour, typical for a certain culture, an institution or the entire human race."

"Empirical findings that justify the hypothesis of an archetypal principal are mainly located in cultural research. Here, universal coincidences of structure, motive and image are found and here lays evidence for quite a few cross-cultural principles of structuring experience (empirically concluded from common structures in art, myth and behavior)."

"Archetypes can be found in what is called universals, … That is cross-cultural symbols, narratives, motifs and themes in the history of mankind"

Definitions and conceptualizations, which are closely linked with biological argumentations and/or ethology/behavioural biology, preserving the definition of archetypes as instincts/pattern of behaviour, as innate, as genetically transmitted etc.:

"The archetypal structure is genetically transmitted. This means that even archetypal representations are to some extent genetically predestined. The archetypal structure embodies however only the possibility for representation; it must be fulfilled by fitting examples of collective and individual experiences."

"An archetype is the increased likelihood that behaviour (not necessarily only human behaviour) accords with particular geometries which are non-arbitrary, persistent across time and space and which are not determined by the phenotypic environment. Here "behaviour" is very general and is not limited to purely external behaviour but includes, for example, internal thoughts, feelings and conceptualizations."

"An archetype is a symbolic image/narrative that has a strong tendency to self-organize in the human psyche. The dispositions that give rise to archetypes are inherited and innate. .. As we develop, the psyche will continuously take our lived experiences and, during dreaming or other reverie states, break them up and reorganize them into symbolic expressions. Such expressions will be arranged in accordance with some symbolic principles of organization which are innate (archetypal elements) and some which are not (learned elements). If a particular image uses enough archetypal elements to create an image/narrative, then it will, by definition, produce an archetypal image. This archetypal image will use the raw material of lived experiences, but put them into a not-literally-experienced form. Therefore, it is the form—i.e., the particular way the pieces of lived experience are arranged—that is innate about the archetypal image."

"Combining these criteria, an archetypal image is: An image/narrative that is an indexical symbol of an emotionally significant experience that takes the subject's personal history, breaks it down and re-combines it into an expression conforming mostly to innate organizational principles. […] It is so easily arrived at that evidence exists that it has been independently invented despite large variations in background.

"Archetypal images are composed primarily of archetypal elements—ordering principles that direct the formation of archetypal images. These are inherited along biological pathways. The genome directs their organization via the well-known genetic biological processes that direct all inherited characteristics. Such processes either involve no learning at all, or if they do involve any learning, it is self-organizing learning that has nothing to do with culture. That is, anyone raised anywhere on earth would teach themselves such elements with no need for specific instruction or imitation/observation (i.e., we are not born knowing the sun is round, but we need no instruction on this to obtain this knowledge)."

"My definition is parallel to Jung's biological approach, … where he used biological analogies: " … they are 'patterns of behaviour'" (Jung, 1952, para. 841). These archetypal backup and response systems have been reflected in the collective memory over the centuries"

"In any case, the archetype is much more than a reflex. The image of the human archetype represents a part of the innate archetypal structure that may, or may not, become conscious during the life time."

"Archetypische Wirkmuster werden hier entwickelt in Analogie zur Triebausgestaltung der biologischen, somatisch verankerten Instinktsphäre als deren psychologischer Entsprechung in geistig-seelischer Dimension. Dies fasst Jung in der Begrifflichkeit des "pattern of behaviour" (archetypal patterns are seen in analogy to the set of drives in the biological-somatic sphere of instincts, they are their parallel in the spiritual and psychic sphere. This is conceptualized by Jung with the term pattern of behaviour).

"Jung proposed that each complex has an archetypal core, and that the archetypes are simply instinctual patterns of behaviour. So, for example, with the complexes described above of the depressed mother or the bullying father, we can see that these experiences exist in every culture and are reflected archetypally in many myths and stories; film is a particular clear exemplar of modern myth and we don't have to go far to find portrayals of depressed and abandoning mothers or bullying and murderous fathers."

Definitions and conceptualizations of the kind: archetypes are contentless forms which shape human perception into definite images and ideas, but also behavioural patterns

"Archetypes are not inborn ideas, but "typical forms of behaviour" which, once they have found their way to consciousness, "naturally present themselves as ideas and images." (CW 8, par. 435). Archetypes have an organising influence on images and ideas. They are not themselves conscious, but underlying ground themes upon which conscious manifestations are sets of variations (Storr 1983). Archetypes are expressions of the life energy, libido (Jacobi 1942). They are timeless and universal and determine for the species and individual specific behaviour. Archetypes may or may not manifest themselves as images in vital life situations; but they are, in any case, latent or active psychic elements that animate individual and collective behaviour. In one form or another they underpin all matter."

"Images and narratives which utilize mostly archetypal organizational principles (i.e., archetypal elements) are archetypes by definition. Generally, the psyche continuously and spontaneously puts together symbolic images in its ongoing efforts to summarize and encapsulate the meaning of a subject's current life situation, as is seen in dreaming, mental wandering, or undirected visions. It does this by taking memories, breaking them up, and then re-organizing them into imaginary symbolic narratives, particularly in the case of dreams. It uses a variety of symbolic associations to create such images and narratives. … Some associations, however, will be innate (i.e., universally emergent). Any construct that contains primarily archetypal elements as opposed to learned elements will therefore qualify as an archetypal image, and because the elements used to construct them are so universal, such expressions should arise independently around the world."

"[…] eine überindividuelle, kollektive Ebene des Unbewussten hin, die eine anordnende Funktion der psychischen Vorgänge und Vorstellungen entfaltet." (A supra-individual, collective level of the unconscious, which has an ordering function for the psyche).

"Archetypes as elements of the collective unconscious can be seen as an impersonal precondition for the formation of experience. … structuring agents and general principles and motives."

Definitions and conceptualizations which follow the last conceptualization (that is, archetypes are contentless forms which shape human perception and action), but that add a viewpoint of dynamic systems theory, stressing the aspect of self organization of the psyche, as well as the interaction of individual and environmental factors

"So verstanden lässt sich "der Archetyp" definieren als ein allgemein-menschliches oder auch art-typisches, durchschnittlich zu erwartendes Muster des Funktionierens, Verhaltens und Erlebens in einer durchschnittlich zu erwartenden Um- und Kulturwelt. Ein solches Muster ist meiner Auffassung nach ein systemisches Ergebnis von sich gegenseitig wechselwirkend beeinflussenden, ökologischen, biologisch-evolutionären, sozialen und kulturellen Faktoren. Das Archetypische gründet von daher nicht allein im menschlichen Organismus, sondern im Gesamt von Naturgesetzen, Umweltfaktoren, Biologie und Kultur, partiell also auch in der Materie, den Pflanzen und Tieren." (archetypes are typical average patterns of human behavior which are a product of systemic combinations of multiple factors, e.g. nature, environment, biology, culture etc.)

"An archetype is a symbolic image/narrative that has a strong tendency to self-organize in the human psyche."

"Thus, an archetypal element is defined as a universally self-organizing, emotionally significant, embodied symbolic association."

Definitions and conceptualizations which argue with highly formal, e.g. mathematical or probabilistic characteristics; in some cases they refer to ideas and conceptualizations in the context of the Pauli-Jung-dialogue:

"My view is more in line with Jung's later writings, in particular the conversations with Pauli: "Your idea that the probability concept in mathematics corresponds to the archetype was most illuminating. In fact, the archetype represents nothing else but the probability of psychic events." (Jung and Pauli 2001, letter 49J)."

""Geometry", because "pattern" is too colloquial and has associations which are fundamentally couched in terms of simple images; a "pattern" tends to be describable in words which fatally compromises the notion of archetype and collapses it into the very different and inadequate notion of "archetypal image" […]"

"Die infrage kommenden Formen sind, wie oben genannt oft von polarer oder quaternärer Struktur, radiär angeordnet oder zentriert um einen Mittelpunkt. Sie können Gegensatzspannungen und paradoxe oder symmetrische bzw. komplementäre Elemente enthalten. Auch wellen- oder strahlenartige Erscheinungen, überwältigende Naturereignisse oder kosmische Szenarien beispielsweise in Träumen können die Grundlage für das Erleben einer archetypischen Qualität bieten." (forms are for example polar, symmetric, radial, centered around a middle, complementary, overwhelming natural events/disasters, cosmic scenarios in dreams etc.)

Philosophical conceptualizations: archetypes are formal categories given a priori that provide the basis for human perception and action; often these definitions make references to Aristotelian metaphysics, Kantian categories or Platonian ideas

"In einem funktionalen Sinn sind Archetypen Strukturmedien oder Verbindungs- und Trennungsverhältnisse der Jung'schen Theorie und Praxis. Sie stellen ein Hauptkonzept von Jungs Interpretation der conditio (in-) humana dar: der Interpretation eines Menschseins, das sich, um Mensch sein zu können, mit dem Unmenschlichen auseinandersetzen muss. In diesem – und nur in diesem – relativen Kontext können Archetypen als ‚universal' gelten. Es ist deshalb verfehlt, einen darüber hinausgehenden Universalismus in Bezug auf andere Wissensfelder zu vertreten. In der analytischen Praxis strukturieren Archetypen das gesamte Erfahrungsfeld, die Selbst- und Fremdbeziehung, Übertragung und Gegenübertragung, Träume, Phantasien, Ideen usw. Im Theoretischen betreffen sie sämtliche antinomischen Selbstverhältnisse des Menschen, die historisch gesehen erstmals – und damit wechseln wir von Jung ins Feld der Philosophie – in der aristotelischen Metaphysik rational zu erfassen versucht wurden."

"Nicht nur Jungs Ansatz operiert demnach notwendigerweise mit diesen apriorischen Vorstellungen, sondern im Grunde jeder Interpretationsansatz, der sich in irgendeiner Form auf eine Art von Anfang (Urknall, Evolution, Schöpfung, Kultur, Bewusstsein, Sprache …) bezieht. Überspitzt könnte man in diesem Sinn von ‚Archetypen' sprechen: von rein formalen, apriorischen Grundstrukturen, die in zwei phantasmatischen Erscheinungsformen sämtlichen denkbaren Ontologien zugrunde liegen. Der Archetyp kann nämlich insofern auch als Archethyp (griech. arché und ethos), d.h. als ein ethisches Potenzial, gelesen werden, als er dem individuellen Bewusstsein die Möglichkeit einer lebenslangen Auseinandersetzung mit Inhalten ermöglicht, die die widersprüchliche Fülle menschlicher Selbstverhältnisse in ihrer Gesamtheit betreffen."

"This leaves us with the archetype in itself, which is most commonly the subject of discussions of transmission. In my own work I have increasingly come to the conclusion that the archetype in itself is best understood in terms of fundamental organizing features of reality taken as a whole, and that it is therefore inadequate to separate out one domain—evolutionary biology, individual developmental psychology, etc.—as the space where transmission can be studied. […] . None of them, of course, involves a form of transmission in the sense of some means of inheritance or cultural transmission. They rely rather on theorizing about the foundational characteristics of reality—they have distinctly metaphysical characteristics."

Transcendental conceptualizations in the broadest sense

"To give a modern, concrete, definition to the archetype seems to be the most urgent theoretical problem in analytical psychology for the time being. Regarding that the archetype is a timeless entity there may be some difficulty with that, especially when the archetype is expected to be easily detectable, visible neuronal structure, or a reaction that can be verified by a fairly simple mechanical method. The brain-mind dualism says: the mind is in the brain, but the brain is not the mind. There is something more, immaterial, in the middle, could it be the archetype?"

"Eine solche Vorstellung auf der Basis empirischer Beobachtung in der spezifischen Arbeit mit bildhaften Gestaltungen und Impulsen aus dem Unbewussten beruht daher auf der Auffassung einer prinzipiellen Einheit von Geist und Materie, die in ihrer Manifestation im Lebendigen jeweils Entsprechungen aufweisen im Wesen einer Zielgerichtetheit ihrer existentiellen Vorgänge. Sie dienen dem Erhalt des lebendigen Individuums auf der somatischen Ebene einer Instinktbefriedigung wie einer Sinnerfüllung in geistig-seelischer Dimension. Beide Elemente werden gedacht als lebensnotwendige Seinsvorgänge einer körperlich-geistigen Einheit." (Emphasizes the unity, in principle, of mind and matter, which for the individual has a somatic level as well as a spiritual, and for the latter it aims at finding meaning)

"Jung saw the archetype as a psychosomatic concept, linking body and psyche; he felt that the psychic and the physical deserved an equal place, and did not believe that the psyche was merely a function of biological drives. He wrote, 'Psychic processes seem to be balances of energy flowing between spirit and instinct, though the question of whether a process is to be described as spiritual or as instinctual remains shrouded in darkness.' (CW 8, para 407). He linkened this to two ends of the light spectrum; at one end there is the infra-red: the instinctual, physical end of the spectrum, at the other end there is the ultra-violet: the spiritual end of the spectrum."

"The archetypal structure is genetically transmitted. This means that even archetypal representations are to some extent genetically predestined. The archetypal structure embodies however only the possibility for representation; it must be fulfilled by fitting examples of collective and individual experiences. Traditionally, this part of transmission happens in the family and cultural tradition, but as this kind of transmission is too slow and too local, there probably are other kinds of transmissions as well. Synchronicity is probably one of them, and the spontaneously created patterns of order arising from the general state of chaos another. Transmission of archetypal representations is possible also through telepathy, spiritism, hypnosis, and like."

"Die Frage der Transmission archetypischer Inhalte ist offen. Eine rein soziologisch begründete Weitergabe überzeugt mich nicht, sie greift zu kurz und scheint mir dem Wunsch geschuldet, eine Anschlussfähigkeit an herrschende Paradigmen in der Wirksamkeitsbegründung psychotherapeutischer Maßnahmen zu rechtfertigen. Daneben sind auch biologische Faktoren der Transmission denkbar oder quantenphysikalische Phänomene. Allen Erklärungen gemeinsam ist jedoch ihr spekulativer und mit aktuellem Wissensstand noch nicht überzeugender Charakter. [...] Das Archetypenkonzept ist daher vor allem ein phänomenologisches, nicht mehr und nicht weniger. Dabei reicht ein phänomenologischer Ansatz für die Identifizierung solcher Vorgänge zunächst aus, auch wenn eine exakte Beschreibung der zugrundeliegenden Vorgänge nicht nur wünschenswert wäre, sondern eine Aufgabe für die Analytische Psychologie darstellt. [...] Unter den Konzeptionen, die versuchen eine Transmission archetypischer Inhalte zu erklären, erscheinen diejenigen am weitreichendsten, die von einer geistig-materiellen Einheit ausgehen im Sinne einer Komplementarität von Physik und Psychologie. Diese sind in C. G. Jungs Arbeiten zum Synchronizitätsprinzip gemeinsam mit Wolfgang Pauli entworfen worden und haben zur Vorstellung einer Einheitswirklichkeit bzw. eines unus mundus geführt. Diese Grundlagen haben bis heute innerhalb der quantenphysikalischen Theorie wesentliche Erweiterungen erfahren, z.B. im Konzept eines duale-Aspekte Monismus."

A category of argumentations which strongly emphasize the limitations to know anything about archetypes, stress the quality of unknowing etc.

"The archetype is unknown because it contains us. The idea that we know the archetype or can capture its nature by a mechanical method is unrealistic. Validation of the archetype is comparable to validation of the

existence of God. The essence of both concepts is unknown and will remain so, their existence can only be deduced from the experience."

"The efforts to bring up what they are, must therefore be necessarily general and vague and again requiring interpretation"

"One cannot, therefore, observe an archetype, ..."

"Unlike the more metaphoric image, the symbol is the result of an attempt to understand or make sense of some state of affairs that is not immediately knowable, or perhaps ever knowable in its entirety. Symbols may then be culturally transmitted, but so long as they retain their significance as symbols they are transmitted as objects of hermeneutical investigation and elaboration, not as mere conventions."

"Bildhafte Beschreibung, wie "Mutterarchetyp" oder "Vaterarchetyp", die sich herausgebildet und im klinischen Alltag bewährt haben, sind daher pragmatische Begriffe, die der Handhabung dienen, zugleich aber aufgrund ihrer Unschärfe einem objektivierbaren Zugriff kaum zugänglich sind. Eine solche Unschärfe ist aber Ausdruck des genannten qualitativen Charakters psychischer Phänomene, aufgrund deren subjektiver Eigenschaft vor allem Ähnlichkeiten, Verwandtschaften und Analogien gefunden werden können aber keine Deckungsgleichheit zu erwarten ist." (archetypes are pragmatic descriptions for phenomena in clinical practice, they are not precise, which owes to their psychological character)

Shortened, "pointed"definitions:

"Culturally independent forms of the unconscious, a collective matrix of patterns in the unconscious"

"The archetype in itself is best understood in terms of fundamental organizing features of reality taken as a whole, and that it is therefore inadequate to separate out one domain—evolutionary biology, individual developmental psychology, etc.—as the space where transmission can be studied."

"Thus, an archetypal element is defined as a universally self-organizing, emotionally significant, embodied symbolic association. They arise in everyone as a result of species-typical gene-environment co-action that does not require specific cultural instruction or imitation. Any learning involved in the construction of these is purely self-directed learning that will be immediately obvious to any normally developing member of species homo sapiens."

"Archetypen sind "als Menschenart des Menschen" angeborene, art-typische Muster des psychophysischen Funktionierens, Erlebens und Verhaltens des Systems Mensch." (they are the human way of humanity, typical for the species)

"In einem funktionalen Sinn sind Archetypen Strukturmedien oder Verbindungs- und Trennungsverhältnisse der Jung'schen Theorie und Praxis . Sie stellen ein Hauptkonzept von Jungs Interpretation der conditio (in-)humana dar: der Interpretation eines Menschseins, das sich, um Mensch sein zu können, mit dem Unmenschlichen auseinandersetzen muss. In diesem – und nur in diesem – relativen Kontext können Archetypen als ‚universal' gelten."

"Archetypes are not inborn ideas, but "typical forms of behaviour" which, once they have found their way to consciousness, "naturally present themselves as ideas and images." (Archetypes have an organising influence on images and ideas. They are not themselves conscious, but underlie ground themes upon which conscious manifestations are sets of variations. Archetypes are expressions of the life energy, libido. They are timeless and universal, and determine for the species and individual specific behaviour.)"

"The archetype in itself is best understood in terms of fundamental organizing features of reality taken as a whole."

Conclusion

I will not go deeper into a discussion of these texts and arguments. On the one hand, because I believe that this would not do justice to the complexity of the argumentations, on the other hand due to the general finding of the analysis of these contributions that they all take up or point to lines of thoughts or figures of argumentation, which can already be found in Jung. Therefore, in the next step the analysis will turn to Jung‘s original texts and how he defines or theorizes around the concept archetype. There is one general conclusion that can be drawn from the analysis of the contributions from the Jungian experts: there is definitely no consensus on how the term archetype should be defined, but there is a great variety of viewpoints, which represents a large scope of differing, and in some ways also incompatible, epistemological viewpoints. In so far, the evaluation that was quoted from Mills (2018) in the introduction, that there is no consensus in the Jungian community on the definition of its core concept, can be supported by the results of this survey.

3 The theory of archetypes in Jung's works

In 1912 Jung published "*Wandlungen und Symbole der Libido"* (later revised as *Symbols of Transformation; CW 5*), in which he investigates the fantasies of a young woman and for the first time describes these based on what he later named as archetypal patterns. This was also the point at which he clearly departed from Freud's psychoanalysis and started to form his own analytical psychology. It is shown here how basic the concept of archetype is in analytical psychology. In this publication Jung examines the parallels between the fantasy images of a young woman and mythological themes, for example the myth of the hero. His first usage of the term archetype appeared in 1919:

"In this deep level we find the a priori, innate forms of intuition, namely the archetypes of perception and cognition, which are the necessary a priori determiners of all mental processes" (Jung 1919, in CW 9/1)[3].

Before that, and synonymously throughout his works, Jung also uses the term pre-image, primeval or primordial image; other terms used by Jung are: "symbolic formulae" (Jung 1921/1971, para. 625); "structural dominants" (Jung 1942/1948, para. 222).

In the "Definitions" from 1921, Jung refers to the term archetype under the heading image (CW 6, para. 759-773), which means a fantasy image, the product of unconscious fantasy activity. These fantasy images have an archaic character.

> "On a primitive level, that means in the mentality of the primitive the inner image projects easily as a vision or a hallucination, without being pathological." (CW 6, para. 759)

This image is a concentrated expression of the total psychological situation, not only of unconscious contents, but of those that are momentarily constellated. The constellation comes about through the activity of the unconscious itself, which is stimulated by the current situation of consciousness. Archaic images have a striking similarity with mythological motifs, which are therefore named collective unconscious.

> *"The primeval image, which I also called archetype, is always collective, which means it is at least shared by whole peoples or epochs. Probably the main mythological motifs are common for all races and times; so I was able to identify a series of motifs of Greek mythology in the dreams and fantasies of mentally insane thoroughbred negroes. From a causal viewpoint of natural sciences one can understand the primeval image as a mnestic engram (Semon) which has formed through compression of countless, similar experiences. In this sense it is the precipitate and therefore a typical basic form of a certain, always repeated psychological experiencing. … In this perspective it is the psychical expression of a specific physiological-anatomical heritage, a very predisposition." (CW 6, para 760)*

Jung expands that the form of these psychological images cannot merely be the result of the observation of processes in nature, e.g., the rising and setting of the sun and moon. This could not, he argues, explain the allegorical/symbolical use of these images. On the other hand, as in the quote above, he illuminates that he sees the archetypes as being formed by experiences of early humans repeated again and again, by typical experiences of humanity. However, according to Jung, these are not experiences in the outside world, but more in the inner world

[3] Some of the quotes from Jung's Collected Works in this chapter are repeated under different headings, as they may exemplify different elements of Jung's theory of archetypes.

of the psyche, which may be solely activated by external events. Therefore, the archetypes provide a picture of the inner world of humans, and not of their environment.
Furthermore, Jung argues for a biological and hereditary basis of the archetypes. We will see, that in Jung's works there are different lines of argumentation concerning this biological basis; one is the idea that the interindividual and intercultural similarity of archetypal patterns come about through the common similar brain structure shared by all humans:

> *"We therefore have to assume that the given structure of the brain is not only an effect of natural conditions… The given form/structure of the organism is therefore a product on the one hand of external conditions and on the other hand of the inherent specifications of the living itself." (CW 6, para. 761)*

The primeval image is therefore the precondition on which observations in nature and their perceptions receive their order. The primeval image is also the precondition for ideas: the image in its appearance as a symbol takes over the task to connect undifferentiated perceptions and psychological states with feelings/emotion, it is therefore a mediator.

> *"The primeval image .. is a living organism, gifted with the power of generation, because the primeval image is an inherited organization of psychological energy, a fixed system, which is not only expression, but also precondition of the processing of energy. It characterizes on the one hand the way, in which the energetic process since primeval times has taken place again and again in the same manner, on the other hand it enables also again and again the lawful process, by enabling the apprehension or psychological perception of situations in a way, so that life can continue. It is therefore the necessary counterpart to the instinct, which is appropriate action, but also a meaningful and appropriate apprehension of the relevant situation. This apprehension of the given situation is secured through the a priori existent image." (CW 6, para. 761)*

What can already be clearly deduced from this early text are the outline of the concept and the central elements of Jung's theories around the concept of archetypes. I would even argue that the main elements of the concept were present in Jung's thought well before that. They can be found in "Symbols of Transformation" and were then confirmed through his own experiences during his crisis after the break with Freud. These elements are:

- the a priori nature of archetypes, which means that they are given to the human mind before there are any experiences
- they are fully unconscious and were never conscious, so they were never an element of conscious experiencing (in strong contrast to Freud's conception who assumed that unconscious material consists mainly of formerly conscious experiences which then were repressed, with the exception of the so-called primal fantasies)
- they are organizers of perception and behind the formation of ideas and psychic images
- they appear first and of all as images
- they are collective, so they are similar over all times, epochs and peoples
- they link modern humans with archaic humans in prehistory and with the history of nature in general
- they channel emotion and psychic energy
- they have a biological basis and are, somehow, parallel to instincts in animals.

> *"These experiences and reflections lead me to believe that there are certain collective unconscious conditions which act as regulators and stimulators of creative fantasy-activity and call forth*

corresponding formations by availing themselves of the existing conscious material. […]" (CW 8, para. 403).

"The archetype is pure, unvitiated nature, and it is nature that causes man to utter words and perform actions whose meaning is unconscious to him, so unconscious that he no longer gives it a thought. […] In view of the findings of modern psychology it cannot be doubted that there are preconscious archetypes which were never conscious and can be established only indirectly through their effects upon the conscious contents. There is in my opinion no tenable argument against the hypothesis that all the psychic functions which today seem conscious to us were once unconscious and yet worked as if they were conscious. We could also say that all the psychic phenomena to be found in man were already present in the natural unconscious state. […]" (CW 8, para. 412)

The upper quote adds two more elements to the basic features of Jung's archetype concept: Jung assumes that the primary state of the psyche is unconscious, which means that during development consciousness develops from a general primary state of unconsciousness. On the other hand, there is the idea that this collective unconscious, which contains the archetypes, has a certain direction, aim or even intention. This part of the theory will later be expanded in the section on process (see below).

Universal character

The perhaps most important characteristic of Jung's concept of the archetypes is their universality, which means that they are shared by all humans, regardless the time and place. This thought is highly important for Jung's argumentation in that they can reappear spontaneously in every individual at any given time, namely in the case of psychopathology. Following this, it is highly important for his concept of the psychotherapeutic process because this is based on the assumption that the process is guided by archetypes. Jung counts on the existence and availability of all the archetypes in every human being. The universality aspect is also significant concerning Jung's explanation for similarities in cultural habits, mythologies and religious ideas (see below).

"Since however, the archetype is always an image belonging to the whole human race and not merely to the individual, […]" (CW 9/1, para. 273)

"*[there exists a] psychic system of a collective, universal, and impersonal nature which is identical in all individuals. This collective unconscious does not develop individually but is inherited. It consists of pre-existent forms, the archetypes, which can only become conscious secondarily and which give definite form to certain psychic contents." (CW 9/I, para 90)*

Archetypes are archaic and link modern humans to prehistory and archaic humans

Basic to Jung's concept is the idea that archetypes have developed in the prehistory of humans, hence their archaic character. They are a heritage that has come upon us modern humans from earlier times. In some sense they are our archaic nature and link us to our ancestors in prehistory. These archaic patterns are thought of by Jung to be closer to nature. Respectively the presence of archetypes, the collective unconscious that we all have access to, enables modern humans to lead a more wholesome life.

"Over the whole of this psychic realm there reign certain motifs, certain typical figures which we can follow far back into history, and even into prehistory. They seem to me to be built into the very structure of man's unconscious, for in no other way can I explain why it is that they occur universally and in identical form." (CW 16, para 254)

"*Just as the body has an anatomical prehistory of millions of years, so also does the psychic system. And just as the human body today represents in each of its parts the result of this evolution, and everywhere still shows traces of its earlier stages—so the same may be said of the psyche." (CW 9/I, p. 348)*

"Das kollektive Unbewusste ist die gewaltige geistige Erbmasse der Menschheitsentwicklung, wiedergeboren in jeder individuellen Hirnstruktur." (Jung, 1931a, para. 342)

"The primeval images are the oldest and most common forms of ideas of humanity." (CW 7, p. 104)

"It throws a bridge between present-day consciousness, always in danger of losing its roots, and the natural, unconscious, instinctive wholeness of primeval times." (CW 9/1, para. 293)

"[…] on the fact that archetypes are not whimsical inventions but autonomous elements of the unconscious psyche which were there before any invention was thought of. They represent the unalterable structure of a psychic world whose "reality" is attested by the determining effects it has upon the conscious mind." (CW 9/1, para. 451)

See also the text under the term "archaism" in the definitions in "Psychological Types" (CW 6, para 754)

There exists the idea in Jung that the archetypes have formed over thousands of years in prehistory as a precipitation of experiences of early men.

"From a causal viewpoint of natural sciences one can understand the primeval image as a mnestic engram (Semon) which has formed through compression of countless, similar experiences. In this sense it is the precipitate and therefore a typical basic form of a certain, always repeated psychological experiencing. … In this perspective it is the psychical expression of a specific physiological-anatomical heritage, a very predisposition." (CW 6, para 760)

"*Where do these archetypes or primeval images come from. It seems to me that their development can not be explained other than that we assume, they are precipitates of continually repeated experiences of mankind. … The archetype is a preparedness to reproduce again and again the same or similar mythic ideas. It seems therefore, as if what is impregnated into the unconscious, is solely the subjective fantasy stimulated through the physical process." (CW 7, p. 109)*

"Contents of the collective unconscious are residues, or engrams." (CW 7, par. 158)

"There are as many archetypes as there are typical situations in life. Endless repetition has engraved these experiences into our psychic constitution." (CW 9/I, para 98)

"We experience archetypal situations, that is, situations that humankind has experienced from time immemorial. These situations always repeat themselves, in various forms. We experience them as we have experienced them at all times." (Jung & Meyer-Grass 2008, p. 162)

A Biological Conception: innateness and instinct

It has already become clear, by the quotes presented above, that the innateness idea of archetypes is central to Jung. In the first publication, in which he used the term 'archetype' (Jung 1919), Jung explicitly speaks of the archetype as 'the a priori *innate* forms of intuition' (italics added). Almost in every instance, where Jung defines or describes the term archetype, he points to his conviction that they are innate. To be more precise, Jung assumes that archetypes are similar to instincts, they form our instinctual nature.

Jung was seemingly very impressed by the - in his time - newly arising science of ethology or behavioural biology and its major concept, the pattern of behaviour, which attempted to define and describe the older term instinct more precisely. Jung equalizes his archetypes with the term pattern of behaviour, which he also uses synonymously with the term instinct. In Jung's conceptualisation the archetype is an innate pattern of perception and behaviour, which influences human perception and action, and shapes it into similar forms.

In his text "Instinct and the unconscious" Jung (1919, CW 8) expands the idea that there is a close connection between the concepts of archetype and that of instinct in more detail:

He argues that instincts are typical forms of behaviour. Wherever there are similarly repeated forms of reaction this can be described as an instinct (para. 273). Whereas the instincts in humans motivate them to specific human behaviours, the archetypes force the perception of the outside world into specific human images and concepts; in this sense the archetypes are regulators or determinants of human perception (para. 177). It should be noted that there is a difference in Jung's theories of instinct and archetype, albeit a close correlation. Later, as we will see, Jung synonymously uses the terms instinct/pattern of behaviour and archetype. In his paper from 1919 Jung summarizes, that in the same way as every human has instincts, as do they also all have primeval images/archetypes. The collective unconscious is the sum of all their instincts and their correlates, the archetypes (para. 281).

> *"[…] this term does not relate to an inherited experience, but rather presuppositions of experience, an inherited mode of mental functioning, corresponding to inherent ways in which the chicken hatches an egg, the bird builds its nest, a certain type of wasp strings the motor ganglion of a grub, and eels find their way to Bermuda and so on…in other words, it is a pattern of behaviour [English term in the original German version]. This aspect of the archetype, the completely biological aspect, is the only object of scientific psychology." (Jung, CW 18, para. 1228)*
>
> *"[…] To the extent that the archetypes intervene in the shaping of conscious contents by regulating, modifying, and motivating them, they act like the instincts. It is therefore very natural to suppose that these factors are connected with the instincts and to inquire whether the typical situational patterns which these collective form-principles apparently represent are not in the end identical with the instinctual patterns, namely, with the patterns of behaviour. […]" (CW 8, para. 404)*
>
> *"What psychology designates as archetype is really a particular, frequently occurring, formal aspect of instinct, and is just as much an a priori factor as the latter" (CW 9/I, para. 714)*
> *"It was manifestly not a question of inherited ideas, but of an inborn disposition to produce parallel images, or rather of identical psychic structure as common to all men, which I later called the archetypes of the collective unconscious. They correspond to the concept of the pattern of behaviour in biology." (CW5, para. 158)*
>
> *"It is not . . . a question of inherited ideas but of inherited possibilities of ideas. Nor are they individual acquisitions but, in the main, common to all, as can be seen from [their] universal occurrence." [CW 9/I, par. 136]*

An important implication of this perspective is the viewpoint that humans are not born as a tabula rasa/blank slate, an assumption that was very dominant in Jung's time during the newly arising behaviourism school of psychology. As a consequence to this belief, of the biological basis of the archetypes, there exists the important idea by Jung of a preformation of the psyche:

> *"Man possesses many things which he has never acquired but has inherited from his ancestors. He is not born as a tabula rasa, he is nearly born unconscious. But he brings with him systems that are organized and ready to function in a specifically human way, and these he owes to millions of years of human development. .. Man brings with him at birth the ground plan of his nature, and not only of his individual nature but of his collective nature. These inherited systems correspond to the human situations that had existed since primeval times; youth and old age, birth and death, sons and daughters, fathers and mothers, mating, and so on. Only the individual consciously experiences these things for the first time, but not the body system and the unconscious." (CW 4, para. 728)*

> *"No biologist would ever dream of assuming that each individual acquires his general mood of behaviour afresh each time. It is much more probable that the young Weaver bird builds his characteristic nest because he is a Weaver bird and not a rabbit. Similarly, it is more probable that man is born with a specifically human mode of behaviour and not with that of a hippopotamus or with none at all." (CW 8, p. 435)*

> *"It was manifestly not a question of inherited ideas, but of an inborn disposition to produce parallel thought formations, or rather of identical psychic structures, to all men, which I later called the archetypes of the collective unconscious." (CW 5, 224)*

> *"The psyche of the child in its preconscious state is … already preformed in a recognizably individual way, and is moreover equipped with all specifically human instincts, as well as with the a priori foundations of the higher functions." (Jung 1989, para. 348)*

The meaning of the archetype

> *"[…] Instinct and the archaic mode meet in the biological conception of the "pattern of behaviour". They are, in fact, no amorphous instincts, as every instinct bears in itself the pattern of its situation. Always it fulfils an image, and the image has fixed qualities. The instinct of the leaf-cutting ant fulfils the image of ant, tree, leaf, cutting, transport, and the little ant-garden of fungi. If any one of these conditions is lacking, the instinct does not function, because it cannot exist without its total pattern, without its image. Such an image is an a priori type. It is inborn in the ant prior to any activity, for there can be no activity at all unless an instinct of corresponding pattern initiates and makes it possible. This scheme holds true of all instincts and is found in identical form in all individuals of the same species. The same is true also of man: he has in him these a priori instinct types which provide the occasion and the pattern for his activities, in so far as he functions instinctively. As a biological being he has no choice but to act in a specifically human way and fulfil his pattern of behaviour. This sets narrow limits to his possible range of volition, the more narrow the more primitive he is, and the more his consciousness is dependent upon the instinctual sphere. Although from one point of view it is quite correct to speak of the pattern of behaviour as a still-existing archaic vestige, as Nietzsche did in respect of the function of dreams, such an attitude does scant justice to the biological and psychological meaning of these types. They are not just relics or vestiges of earlier modes of functioning; they are the ever present and biologically necessary regulators of the instinctual sphere, whose range of action covers the whole realm of the psyche and only loses its absoluteness when limited by the relative freedom of the will. We may say that the image represents the meaning of the instinct" (CW 8, para. 398).*

> *"Consequently they [instincts] form very close analogies to the archetypes, so close, in fact, that there is good reason for supposing that the archetypes are the unconscious images of the instincts themselves in other words, that they are patterns of instinctual behaviour" (CW 9/I, para. 91)*

Here Jung uses somewhat mysterious descriptions or definitions about the relations between instinct and archetype, and how they manifest themselves in the psyche, e.g., the image represents the meaning of the instinct, and the archetype were the self-depiction of the instincts in the psyche (CW 8, Paragraph 277).
Jung's pupil Jolande Jacobi (1986) provides an attempt of explanation in her overview of Jungian psychology:

> "The archetypal image could be described as self-depiction of the instincts in the psyche, as a picture turned to a mental process, as a basic pattern of human behaviour. An Aristotelian would say: the archetypes are images formed from the experience of real fathers and mothers. A Platonian would say: the archetypes have first become fathers and mothers because they are pre-images, the prototypes of phenomena. The archetypes are formed a priori for the individual, originating from the collective unconscious and therefore excluded from a sense of individual becoming or fading away." (p. 51)

As I understand Jung here, he tries to put forward the following idea: the instincts in animals are activated by typical signals or situations (inborn release mechanism/IRM in ethology) and can be seen as an appropriate reaction to this situation, an adaptation to the requirements set by the environment - which is a very Darwinian form of argument. Parallel to these instincts in animals, he sees the archetypes in humans as a system which prepares the person for an appropriate reaction to a certain situation in their environment. It is, in some sense, an adaptive, wholesome form of behaviour in harmony with nature - and nature can be understood here both as environmental requirements as well as the requirements of man's own psyche. And instead of the inborn release mechanism of ethology, Jung assumed that the parallel in the archetype is an image, as for example in the following quote:

> "*These inherited systems correspond to the human situations that have existed since primeval times. I have called this congenital and pre-existent instinctual model, or pattern of behaviour, the archetype.*" *(CW 4, p. 728)*

See also von Franz: "The form and the meaning of instincts are represented in the images produced by the archetypes" (von Franz 1980, p. 81)

Therefore, archetypes are and appear primarily as **images**. It should be noted that Jung, before he coined the term archetype, used the term image for the same concept (e.g., Definitions, CW 6).

> *"Archetypes, so far as we can observe and experience them at all, manifest themselves only through their ability to organize images and ideas, and this is always an unconscious process which cannot be detected until afterwards." (CW 8, p. 440)*

The idea outlined above, that the archetype activates a preformatted behaviour pattern as an adaptation to certain typical situations (which humans have been confronted with again and again since prehistory), relates to the **idea of a release mechanism,** by which Jung again attempts to parallel the archetype with the concept of pattern of behaviour**:**

> *"In any situation of panic, whether external or internal, the archetypes intervene and allow a man to react in an instinctively adapted way, just as if he had always known the situation: he reacts in the way mankind has always reacted." (CW 18, p. 368)*

"The term image is intended to express not only the form of the activity taking place, but the typical situation in which the activity is released." (CW 9/I, p. 152)

"Pattern of ideas, of a numinous or fascinating character, which compels the moth to carry out its fertilizing activity on the yucca plant." (CW 10, p. 547)

Identical brain structure

When reasoning about the question of how the biological basis of these archetypal patterns can be specified, Jung often argues with the **identical brain structure** that is shared by all humans, or even the same structure of living organisms:

"They are inherited with the brain structure - indeed, they are its psychic aspect." (CW 10, p. 53)

"We are forced to assume that the given structure of the brain does not owe its peculiar nature merely to the influence of surrounding conditions, but also in just as much to the peculiar and autonomous quality of living matter, i.e., to a law inherent in life itself. The given Constitution of the organism, therefore, is on the one hand a pro duct of external conditions, while on the other it is determined by the intrinsic nature of living matter." (CW 6, 748)

"There is nothing to prevent us from assuming that certain archetypes exist even in animals, that they are grounded in the peculiarities of the living organism itself and are therefore direct expressions of life whose nature cannot be further explained." (CW 7, 109)

Untouched by experience and never been conscious before

Jung describes "the collective unconscious" as psychic contents that have "**never been in consciousness, and therefore have never been individually acquired**, but owe their existence exclusively to heredity." (CW 9/I, para 88).
This describes the meaning of the term a priori, which Jung uses repeatedly to characterize the archetypes. In general, it means that archetypes are present before there is any personal experience which could shape the mind. In that sense, archetypes are untouched by experience, they do also not change through experience, and most important, they are first and foremost unconscious and have never been conscious before.

"The collective unconscious is a part of the psyche which can be negatively distinguished from the personal unconscious by the fact that it does not, like the latter, owe its existence to personal experience and consequently is not a personal acquisition. While the personal unconscious is made up essentially of contents which have at one time been conscious but which have disappeared from consciousness through having been forgotten or repressed, the contents of the collective unconscious have never been in consciousness, and therefore have never been individually acquired, but owe their existence exclusively to heredity. Whereas the personal unconscious consists for the most part of complexes, the content of the collective unconscious is made up essentially of archetypes." (CW 9.1, para.88)

"[…] on the fact that archetypes are not whimsical inventions but autonomous elements of the unconscious psyche which were there before any invention was thought of. They represent the unalterable structure of a psychic world whose "reality" is attested by the determining effects it has upon the conscious mind." (CW 9/1, para. 451)

"The methodological principle in accordance with which psychology treats the products of the unconscious is this: Contents of an archetypal character are manifestations of processes in the

collective unconscious. Hence they do not refer to anything that is or has been conscious, but to something essentially unconscious. In the last analysis, therefore, it is impossible to say what they refer to. Every interpretation necessarily remains an "as-if." (CW 9/1, para. 265)

"[…] absolute unconscious which has nothing to do with our personal experience. This absolute unconscious would then be a psychic activity which goes on independently of the conscious mind and is not dependent even on the upper layers of the unconscious, untouched – and perhaps untouchable – by personal experience." (CW 8, p. 311)

"If I have any share in these discoveries [i.e. the idea of psychic a prioris], it consists in …having shown that archetypes are not disseminated only by tradition, language, and migration, but that they can rearise spontaneously, at any time, at any place, and without any outside influence." (CW 9/I, para153)

"But, in point of fact, typical mythologems were observed among individuals to whom all knowledge of this kind was absolutely out of the question, and where in direct derivation from religious ideas that might have been known to them, or from popular figures of speech, was impossible. Such conclusions forced us to assume that we must be dealing with autochthonous revivals independent of all tradition, and, consequently, that myth forming structural elements must be present in the unconscious psyche." (CW 9/I, p. 259)

*"[unconscious phantasies]of an impersonal character, which cannot be reduced to experiences in the individual's past and thus cannot be explained as something individually acquired. These fantasy-images undoubtedly have their closest analogues in mythological types. We must therefore assume that they correspond to certain collective (and not personal) structural elements of the human psyche in general, and, like the morphological elements of the human body, are inherited. Although tradition and transmission by migration certainly play a part, there are … very many cases that cannot be accounted for in this way and drive us to the hypothesis of "**autochthonous revival**"." (CW 9/I, para262)*

Autochthonous revival

The **idea of autochthonous revival of archetypal elements** is absolutely crucial for Jung's psychology, since his psychotherapeutic method is based on his conviction that these elements are reactivated in the form of images within the clients' mind in the course of the psychotherapeutic process.

"[…] I therefore took up a dream-image or an association of the patient´s, and, with this as a point of departure, set him the task of elaborating or developing his theme by giving free rein to his fantasy. This, according to individual taste and talent, could be done in any number of ways, dramatic, dialectic, visual, acoustic, or in the form of dancing, painting, drawing, or modelling. The result of this technique was a vast number of complicated designs whose diversity puzzled me for years, until I was able to recognize that in this method I was witnessing the spontaneous manifestation of an unconscious process which was merely assisted by the technical abilitiy of the patient, and to which I later gave the name "individuation process. […]." (CW 8, para. 400)

On the other hand, Jung finds evidence for the workings – the autochthonous revival - of archetypal patterns in the **creative productions of his patient**s:

"The chaotic assortment of images that at first confronted me reduced itself in the course of the work to certain well-defined themes and formal elements, which repeated themselves in identical or analogous form with the most varied individuals. I mention, as the most salient characteristics, chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third; the quaternity (square,c cross); rotation (circle, sphere); and finally the centring process and a radial arrangement that usually followed some quaternary system. Triadic formations, apart from the complexio oppositorum in a third, were relatively rare and formed notable

exceptions which could be explained by special conditions. The centring process is, in my experience, the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect. The typical features listed above go to the limits of abstraction, yet at the same time they are the simplest expressions of the formative principles here at work. In actual reality, the patterns are infinitely more variegated and far more concrete than this would suggest. Their variety defies description. I can only say that there is probably no motif in any known mythology that does not at some time appear in these configurations. If there was any conscious knowledge of mythological motifs worth mentioning in my patients, it is left far behind by the ingenuities of creative fantasy. In general, my patients had only a minimal knowledge of mythology." (CW 8, para. 401)

Archetypes and psychopathology

The concept of archetypes developed resulting from Jung's psychiatric experience with psychotic patients and their fantasies in the "Burghölzli" hospital. He experienced cases where psychotic patients developed fantasies, which were parallel to motifs from ancient mythology. The most important case in this respect is the so-called "Solar Phallus Man", a patient at "Burghölzli" who told Jung about a phallus coming out of the sun which produces the wind. Jung was extremely surprised by this since he had just translated an ancient Egyptian text which included the same image

"(Speaking about the solar phallus man): "This observation is not an isolated case: it was manifestly not a question of inherited ideas, but of an inborn disposition to produce parallel images, or rather of identical psychic structure as common to all men, which I later called the archetypes of the collective unconscious. They correspond to the concept of the pattern of behaviour in biology." (CW5, para. 158)

"The archetype does not proceed from physical facts, but describes how the psyche experiences the physical fact, and in so doing the psyche often behaves so autocratically that it denies tangible reality or makes statements that fly in the face of it." (CW 9/1, para. 260)

Later, he assumed that behind the psychopathology in psychosis and schizophrenia was a breakthrough of the collective unconscious, which appears as "archaic drives in combination with mythological images" (CW 8, Paragraph 281). So, an important idea is that archetypes shape the fantasies, even the symptoms in psychopathological disorders, especially in psychosis and in all forms of paranoia. Archetype theory originally was an attempt to explain the imagery of psychosis, based on Jung's and Bleuler's innovative approach to the treatment of schizophrenia, namely to assume that there is meaning behind these fantasies, and for therapeutic purposes it is important to get access to an understanding of these ideas and images. But not only in psychosis do the archetypes act as an explanatory model. Jung also assumes that archetypes underlie and form the basis of personal complexes:

"The conscious then comes under the influence of unconscious <u>instinctual</u> impulses and contents. These are as a rule complexes whose ultimate basis is the archetype, the 'instinctual pattern'." (Jung 1952a, para. 856)

"Because of its instinctual nature, the archetype underlies the feeling-toned complexes and shares their autonomy." (Jung 1958b, para. 847)

The archetype does not proceed from physical facts, but describes how the psyche experiences the physical fact, and in so doing the psyche often behaves so autocratically that it denies tangible reality or makes statements that fly in the face of it." (CW 9/1, para. 260)

In general, Jung's explanatory theory of psychopathology using the archetype concept is based on the idea that the psychological disorders, especially the psychotic disorders, have to do with a lack of differentiation of consciousness from the collective unconscious, respectively archetypal forces. If consciousness is not capable of separating from the collective unconscious/archetypal powers, it is somehow overrun, and fantasy production is dominated by archetypal patterns. But the need to separate from and differentiate from the archetypes is not just a matter in psychopathology, it applies to all human development.

Primitivism/archaism

In the following the view on the general process of human development will be further examined. Individual development is linked, according to Jung, to the idea that the problem of differentiation of consciousness from the collective unconscious can also be found on the level of the development of humanity from prehistoric times – a concept termed the homology of phylogeny and ontogeny (for details see chapter 'Anthropology':). To be specific, there is the idea of a primitive or developmentally early state of mind in which consciousness cannot differentiate between the productions of the person's own inner world and experiences in the outer, physical world. Jung calls this identity, a term which must be differentiated from the contemporary psychological term identity, in the sense of a self-concept. To Jung, the meaning is more or less the same as fusion, in the sense of an absence of differentiation. In this state of mind, the person cannot reflect upon his or her inner world; there is no, so to say, observer position regarding the inner world. Now, Jung goes as far as claiming that this primitive state of mind is generally to be found in, what he calls, primitive peoples, as well as in certain psychopathological states of mind in modern humans, namely when projections of unconscious content appear. These two are equated in Jung's theory. For these states he makes use of Levy-Bruhl's (1912) concept "participation mystique", which he quotes over 50 times in his works (e.g. Jung CW9/I, paras. 41, 226).

> *"Our mentality is still so primitive that only certain functions and areas have outgrown the primary mystic identity with the object. Primitive man has a minimum of self-awareness combined with a maximum of attachment to the object; hence the object can exercise a direct magical compulsion upon him. All primitive magic and religion are based on these magical attachments, which simply consist in the projections of unconscious contents into the object. Self-awareness gradually developed out of this initial state of identity and went hand in hand with the differentiation of subject and object. This differentiation was followed by the realization that certain qualities which, formerly, were naïvely attributed to the object are, in reality, subjective contents. Although the men of antiquity no longer believed that they were red cockatoos or brothers to the crocodile, they were still enveloped in magical fantasies. In this respect, it was not until the Age of Enlightenment that any essential advance was made." (CW 8, para. 516)*

> *"The definiteness and directedness of the conscious mind are qualities that have been acquired relatively late in the history of the human race and are for instance largely lacking among primitives today. These qualities are often impaired in the neurotic patient, who differs from the normal person in that his threshold of consciousness gets shifted more easily; in other words, the partition between conscious and unconscious is much more permeable. The psychotic, on the other hand, is under the direct influence of the unconscious." (CW 8, para. 134)*

> *"The archetype is pure, unvitiated nature, and it is nature that causes man to utter words and perform actions whose meaning is unconscious to him, so unconscious that he no longer gives it a thought. A*

later, more conscious humanity, faced with such meaningful things whose meaning none could declare, hit upon the idea that these must be the last vestiges of a Golden Age, when there were men who knew all things and taught wisdom to the nations. In the degenerate days that followed, these teachings were forgotten and were now only repeated as mindless mechanical gestures. In view of the findings of modern psychology it cannot be doubted that there are preconscious archetypes which were never conscious and can be established only indirectly through their effects upon the conscious contents. There is in my opinion no tenable argument against the hypothesis that all the psychic functions which today seem conscious to us were once unconscious and yet worked as if they were conscious. We could also say that all the psychic phenomena to be found in a man were already present in the natural unconscious state. To this it might be objected that it would then be far from clear why there is such a thing as consciousness at all. I would, however, remind the reader that as we have already seen, all unconscious functioning has the automatic character of an instinct, and that the instincts are always coming into collision or, because of their compulsiveness, pursuing their courses unaltered by any influence even under conditions that may positively endanger the life of the individual. As against this, consciousness enables him to adapt in an orderly way and to check the instincts, and consequently it cannot be dispensed with. Man´s capacity for consciousness alone makes him man." (CW 8, para. 412)

"The fact that an idea so utterly archaic could rise to such exalted heights of meaning not only points to the vitality of archetypal ideas, it also demonstrates the rightness of the principle that the archetype, because of its power to unite opposites, mediates between the unconscious substratum and the conscious mind. It throws a bridge between present-day consciousness, always in danger of losing its roots, and the natural, unconscious, instinctive wholeness of primeval times." (CW 9/1, para. 293)

"Archetypes were, and still are, living psychic forces that demand to be taken seriously, and they have a strange way of making sure of their effect. Always they were bringers of protection and salvation, and their violation has as its consequence the "perils of the soul" known to us from the psychology of primitives. Moreover, they are the unfailing causes of neurotic and even psychotic disorders, behaving exactly like neglected or maltreated physical organs or organic functional systems." (CW 9/1, para. 266)

"On a primitive level, that means in the mentality of the primitive the inner image projects easily as a vision or a hallucination, without being pathological." (CW 6, para 770)

Although Jung stresses the point that he sees the archetypes as rooted in the biology of humans, meaning human behaviour is strongly directed by instinctual patterns or energies, the central topic of his psychology is the question of how humans can develop out of these limitations and become free to make their own choices and live a conscious life. This is, as Jung sees it, the major aim of the individuation process as well as of psychotherapy/analysis; to become conscious of the unconscious, and of archetypal factors influencing the personality, thus liberating the mind from solely being something natural. Therefore, Jung calls analysis and individuation an 'opus contra naturam'.

"*In the psychic sphere, as we have seen, the will influences the function. It does this by virtue of the fact that it is itself a form of energy and has the power to overcome another form. In this sphere which I define as psychic, the will is in the last resort motivated by instincts – not, of course, absolutely, otherwise it would not be a will, which by definition must have a certain freedom of choice. "Will" implies a certain amount of energy freely disposable by the psyche. There must be such amounts of disposable libido (or energy), or modifications of the functions would be impossible, since the latter would then be chained to the instincts – which are in themselves extremely conservative and correspondingly unalterable – so exclusively that no variations could take place, unless it were organic variations. But at the (permitting such an expression) upper limit of the psyche, where the function breaks free from its original goal, the instincts lose their influence as movers of the will. […]." (CW 8, para. 379)*

"In the psychic sphere, the compulsive pattern of behaviour gives way to variations of behaviour which are conditioned by experience and by volitional acts, that is, by conscious processes. With respect to the psychoid, reflex-instinctual state, therefore, the psyche implies a loosening of bonds and a steady recession of mechanical processes in favour of "selected" modifications. This selective activity takes place partly inside consciousness and partly outside it, i.e., without reference to the conscious ego, and hence unconsciously. In the latter case the process is "quasi-conscious," as if it were "represented" and conscious." (CW 8, para. 386)

In this sense, Jung agrees with Freud, that where there was unconsciousness, there shall be consciousness.

Cross-cultural similarities in patterns, myths, rites, religious beliefs

Strongly connected with the idea outlined above, of a primitive state of mind which is undifferentiated from the archetypes/collective unconscious, there is the idea that the archetypes are behind cross-cultural similarities in patterns, beliefs, mythological motifs etc., as they can be found in anthropology. At least Jung claims that there are such similarities (for a contemporary view see chapters Anthropology and Mythology).

"The primeval image, which I also called archetype, is always collective, which means it is at least shared by whole peoples or epochs. Probably the main mythological motifs are common for all races and times; so I was able to identify a series of motifs of Greek mythology in the dreams and fantasies of mentally insane thoroughbred negroes." (CW 6, para 760)

"These facts show in an unmistakable manner how fantasies guided by unconscious regulators coincide with the records of man´s mental activity as known to us from tradition and ethnological research. […]" (CW 8, para. 402)

"The concept of the archetype, which is an indispensable correlate of the idea of the collective unconscious, indicates the existence of definite forms in the psyche which seem to be present always and everywhere. Mythological research calls them "motifs"; in the psychology of primitives they correspond to Lévy-Bruhl´s concept of "representations collectives", and in the field of comparative religion they have been defined by Hubert and Mauss as "categories of the imagination." (CW 9/1, para. 89)

"A typos (imprint), a definite grouping of archaic character containing, in form as well as in meaning, mythological motifs." (CW 18, par. 80)

"[…] but, in point of fact, typical mythologems were observed among individuals to whom all knowledge of this kind was absolutely out of the question, and where in direct derivation from religious ideas that might have been known to them, or from popular figures of speech, was impossible. Such conclusions forced us to assume that we must be dealing with autochthonous revivals independent of all tradition, and, consequently, that myth forming structural elements must be present in the unconscious psyche." (CW 9/I, p. 259)

"[unconscious phantasies]of an impersonal character, which cannot be reduced to experiences in the individual's past and thus cannot be explained as something individually acquired. These fantasy-images undoubtedly have their closest analogues in mythological types. We must therefore assume that they correspond to certain collective (and not personal) structural elements of the human psyche in general, and, like the morphological elements of the human body, are inherited. Although tradition and transmission by migration certainly play a part, there are … very many cases that cannot be accounted for in this way and drive us to the hypothesis of "autochthonous revival". (CW 9/I, para262)

"[…] an inherited tendency of the human mind to form representations of mythological motifs - representations that bear right a great deal without losing their basic pattern." (CW 8, p. 523)

"These products [myth-forming structural elements of the unconscious psyche] are never (or at least very seldom) myths with a definite form, but rather mythological components which, because of their typical nature, we can call "motifs", "primordial images", types or – as I have named them – archetypes. […] In the Individual, the archetypes appear as involuntary manifestations of unconscious processes whose existence and meaning can only be inferred, whereas the myth deals with traditional forms of incalculable age. […] The archetype does not proceed from physical facts, but describes how the psyche experiences the physical fact, and in so doing the psyche often behaves so autocratically that it denies tangible reality or makes statements that fly in the face of it." (CW 9/1, para. 260)

"Where do these archetype's or primeval images come from. It seems to me that their development cannot be explained other than that we assume, they are precipitates of continually repeated experiences of mankind. … The archetype is a preparedness to reproduce again and again the same or similar mythic ideas. It seems therefore, as if what is impregnated into the unconscious, is solely the subjective fantasy stimulated through the physical process." (CW 7, p. 109)

"When that happens, nothing is gained by brushing them aside as ridiculous, for archetypes are among the inalienable assets of every psyche. They form the "treasure in the realm of shadowy thoughts" of which Kant spoke, and of which we have ample evidence in the countless treasure motifs of mythology." (CW 9/1, para. 160)

Example: "The Jonah and the whale pattern has any number of variants, for instance the witch who eats children, the wolf, the ogre, the dragon, and so on." (CW 5, p. 419)

Archetypes are connected to emotionality

As aforementioned, for Jung the term archetype is strongly connected with the term image. He assumes that archetypes appear primarily as images. However, as he points out, these images are not abstract, but loaded with emotions, which gives them their energy to influence human fantasy production and behaviour. In this context he also uses the term numinous to describe the strong emotional impact archetypes can have on a person, meaning both fascinating and intimidating (tremendum et fascinosum). So, in other words, it could be said that archetypes are channels for emotions or psychic energy in general, which give the energy a certain shape and direction.
This is summarized in the following quote from the Dictionary of Analytical Psychology:

"Archetypical models are waiting to manifest themselves in a personality. They are capable of taking on an infinite number of variations and are dependent on individuals. They exert a fascination, which is intensified by culturally and traditionally dependent expectations. They are, therefore, bearers of a strong and possibly overwhelming quantity of energy, which, dependent on the developmental stage and level of consciousness – is hard to withstand. Archetypes awaken emotions, make us blind to reality, and take hold of the will. Archetypal living means living without boundaries (Inflation). To declare something archetypal can mean a conscious interaction with a collective and historic image, which gives room for the interplay of elementary polarities: past and present, personal and collective, typical and unique (contrasts)." (Samuels et al. 1991, p. 44)

"(Archetypes appear) as both images and at the same time emotions … For when it appears as an archetypal image it has not only a formal but also an emotional aspect." (CW 18, p. 257)

"For the archetype, of course, exists a priori. This may possibly explain the often totally irrational yet undisputed and indisputable existence of certain moods and opinions." (CW 9/2, para. 34)

"*The contents of the personal unconscious are chiefly the feeling-toned complexes, as they are called; they constitute the personal and private side of psychic life. The contents of the collective unconscious, on the other hand, are known as archetypes." (CW 9/1, para. 4)*

"It would be an unpardonable sin of omission were one to overlook the feeling-value of the archetype. This is extremely important both theoretically and therapeutically. As a numinous factor, the archetype determines the nature of the configurational process and the course it will follow, with seeming fore-knowledge, or as though it were already in possession of the goal to be circumscribed by the centring process. […]." (CW 8, para. 411)

"*This illustrates the way in which archetypes appear in practical experience. In the first case they appear in their original form – they are images and at the same time emotions. One can speak of an archetype only when these two aspects coincide. When there is only an image, it is merely a word-picture, like a corpuscle with no electric charge. It is then of little consequence, just a word and nothing more. But if the image is charged with numinosity, that is, with psychic energy, then it becomes dynamic and will produce consequences. It is a great mistake in practice to treat an archetype as if it were a mere name, word, or concept. It is far more than that: it is a piece of life, an image connected with the living individual by the bridge of emotion. The word alone is a mere abstraction, an exchangeable coin in intellectual commerce. But the archetype is living matter. It is not limitlessly exchangeable but always belongs to the economy of a living individual, from which it cannot be detached and used arbitrarily for different ends. It cannot be explained in just any way, but only in the one that is indicated by that particular individual. Thus the symbol of the cross, in the case of a good Christian, can be interpreted only in the Christian way unless the dream produces very strong reasons to the contrary, and even then the specifically Christian meaning should not be lost sight of." (CW 18/1, para. 589)*

Archetypes as psychic organs

In this regard, archetypes can also be seen as psychic organs, which means they are part psyches which have their own life and energy, yes even a certain amount of intentionality.

"The primeval images are the oldest and most common forms of ideas of humanity. They are as well feeling as they are thought; yes, they have even their own, independent life, somehow like that of partial souls." (CW 7, p. 104)

"The archetypes are, so to speak, organs of the pre-irrational psyche." (CW 11, 845)

"The archetype is a self activating organism, endowed with generative power." (CW 6, 754)

"The archetype – let us never forget this – is a psychic organ present in all of us. […] For the archetype is an element of our psychic structure and thus a vital and necessary component in our psychic economy. It represents or personifies certain instinctive data of the dark, primitive psyche, the real but invisible roots of consciousness." (CW 9/1, para. 271)

"Archetypes were, and still are, living psychic forces that demand to be taken seriously, and they have a strange way of making sure of their effect. Always they were bringers of protection and salvation, and their violation has as its consequence the "perils of the soul" known to us from the psychology of primitives. Moreover, they are the unfailing causes of neurotic and even psychotic disorders, behaving exactly like neglected or maltreated physical organs or organic functional systems." (CW 9/1, para. 266)

Archetypes and religion

As archetypes activate strong emotions and are connected with experiencing the feeling of (what Jung calls by referring to Rudolf Otto) numinosity, they are closely linked to religious feelings and beliefs. They are even thought to be behind the development of religion itself. In Definitions (CW 7, para. 108) Jung provides as an example for archetypes, the idea of energy and how it influences the concept of magic in religions. Specifically, as Jung argues, the 'primitives' had an idea of primitive energetics, the general idea of a magical force. At the core of this effect, which produces religious feelings as well as in effect religion itself, is the fact that archetypes transmit meaning, which is a central term in Jung's psychology. The archetypes are important for psychic life since they connect the person to a sense of meaning in life. This idea is connected in Jung with the concept of psychic wholeness as the goal of the individuation process.

> *"[…] There is a mystical aura about its numinosity, and it has a corresponding effect upon the emotions. It mobilizes philosophical and religious convictions in the very people who deemed themselves miles above any such fits of weakness. Often it drives with unexampled passion and remorseless logic towards its goal and draws the subject under its spell, from which despite the most desperate resistance he is unable, and finally no longer even willing, to break free, because the experience brings with it a depth and fullness of meaning that was unthinkable before. […]." (CW 8, para. 405)*
>
> *"In spite or perhaps because of its affinity with instinct, the archetype represents the authentic element of spirit, but a spirit which is not to be identified with the human intellect, since it is the latter´s spiritus rector. The essential content of all mythologies and all religions and all isms is archetypal. The archetype is a spirit or pseudo-spirit: what it ultimately proves to be depends on the attitude of the human mind. Archetype and instinct are the most polar opposites imaginable, as can easily be seen when one compares a man who is ruled by his instinctual drives with a man who is seized by the spirit. […]" (CW 8, para. 406)*
>
> *"[…] Psychologically, however, the archetype as an image of instinct is a spiritual goal toward which the whole nature of man strives; it is the sea to which all rivers wend their way, the prize which the hero wrests from the fight with the dragon." (CW 8, para. 415)*
>
> *"Archetypes are complexes of experience that come upon us like fate, and their effects are felt in our most personal life." (CW 9/1, para. 62)*
>
> *"[…] on the fact that archetypes are not whimsical inventions but autonomous elements of the unconscious psyche which were there before any invention was thought of. They represent the unalterable structure of a psychic world whose "reality" is attested by the determining effects it has upon the conscious mind." (CW 9/1, para. 451)*
>
> *"Rebirth is an affirmation that must be counted among the primordial affirmations of mankind. These primordial affirmations are based on what I call archetypes. In view of the fact that all affirmations relating to the sphere of the suprasensual are, in the last analysis, invariably determined by archetypes, it is not surprising that a concurrence of affirmation concerning rebirth can be found among the most widely differing peoples." (CW 9/1, para. 207)*

The archetype even has an *a priori* knowledge of its aim which comes close to supernatural forces (Jung CW 8, para. 411; CW 9/I, para. 68). In these definitions archetypes are regarded as independent, purposeful entities, similar to spirits or gods. This idea is as important to Jung's psychology as it is mysterious. It implies that in a person there is an additional consciousness, wisdom or intentionality besides ego consciousness, which knows well before

there is any conscious self-reflection the aim of the person‘s development. This leads to the process idea at the core of archetype theory (see below).
“… that the archetypes have about them a certain effulgence or quasi-consciousness, and that numinosity entails luminosity.” (CW 8, para. 388).

The archetype as such: structure/form without content

As a consequence to critique coming mainly from biologists, that his biological conception of the archetypes was not based on contemporary insights in biology (e.g. by the biologist Adolf Portmann, whom Jung met at the Eranos conferences in Ascona; see also chapter Biology), Jung introduced a further differentiation in 1947 between the archetype as such and its concrete manifestations. Jung points out that the archetype is devoid of content. Only a general structure is represented, which organises content or information. It could also be called a general attractor. To illustrate this aspect, Jung uses the structure of a crystal: when a solid body crystallises in a solution, the form or structure of this solid object will be unique and individual, but at the molecular level the crystal lattice is always the same.

> *“Their form is comparable with the lattice system of crystal, some of which preforms in certain ways the structure of the crystal in the mother liquor (the archetype per se), without itself having a material existence. This existence appears first in the manner of the shooting of ions and molecules. The lattice system determines simply the biometric structure, but not the concrete form of the individual crystal…and just as the archetype possess…an invariable central meaning, which constantly only in principle and not in a concrete form, determines how it appears.” (Jung, CW, 9/1, para. 95)*
>
> *“Again and again I encounter the mistaken notion that an archetype is determined in regard to its content, in other words that it is a kind of unconscious idea (if such an expression be admissible). It is necessary to point out once more that archetypes are not determined as regards their content, but only as regards their form and then only to a very limited degree. A primordial image is determined as to its content only when it has become conscious and is therefore filled out with the material of conscious experience. Its form, however, as I have explained elsewhere, might perhaps be compared to the axial system of a crystal, which, as it were, preforms the crystalline structure in the mother liquid, although it has no material existence of its own. […] The archetype in itself is empty and purely formal, nothing but a facultas praeformandi, a possibility of representation which is given a priori. The representations themselves are not inherited, only the forms, and in that respect they correspond in every way to the instincts, which are also determined in form only. The existence of the instincts can no more be proved than the existence of the archetypes, so long as they do not manifest themselves correctly.” (CW 9/I, para. 155)*
>
> *“The archetypal representations (images and ideas) mediated to us by the unconscious should not be confused with the archetype as such. They are very barren right structures which all point back to one essentially irrepresentable basic form .. It seems to me probable that the real nature of the archetype is not capable of being made conscious. .. Whatever you say about the archetypes, they remain visualizations or concretisations which pertain to the field of consciousness. But we cannot speak about archetypes in any other way. We must, however, constantly bear in mind that what we mean by archetype is in itself irrepresentable, but has effects which make visualizations of it possible, namely, the archetypal images and ideas.” (CW 8, 417)*
>
> *“I’m not saying that the ideas are inherited, what is inherited is the possibility of the idea.” (CW 7, p.101)*
>
> *“There are as many archetypes as there are typical situations in life. Endless repetition has engraved these experiences into our psychic constitution, not in the form of images filled with content, but at*

first only as forms without content, representing merely the possibility of a certain type of perception and action." (CW 9/I, para 98, italics original)

"The archetype is essentially an unconscious content that is altered by becoming conscious and by being perceived, and it takes its colour from the individual consciousness in which it happens to appear." (CW 9/1, para. 6)

Based on the differentiation between the archetype and its manifestations, it becomes clearer that archetypes are factors which organize experience, perception, and also inner processes into definite forms. The conscious experience is unconsciously informed by archetypes: archetypes are "factors and motifs that arrange the psychic elements into certain images" (Jung 1942/1948, para. 222) and "factors responsible for the organization of unconscious psychic processes" (Jung 1952a, para. 841). Archetypes are "empirically derived postulates" which "manifest themselves only through their ability to organize images and ideas, and this is always an unconscious process which cannot be detected until afterwards" (Jung 1947/1954, para. 440).

"innate possibilities of ideas … Give definite form to contents that have already been acquired." (CW 15, p. 81)

"The basic principles, the archetypes, of the unconscious are, because of their evocativeness, indescribable, despite being recognisable. The intellectual judgement always seeks, naturally, to assess their uniqueness and thus get past the essence, because above all the only thing about their nature which can be assessed, is their ambiguity, their almost immeasurable wealth of meaning, which each clear formulation makes impossible." (Jung, CW, 9/1, para. 80)

References to philosophy

In contrast to his assumptions about mythological motifs and religious beliefs being archetypal, Jung makes references to philosophy, by assuming that archetypes are basic categories of human thought, reason, and perception. Here Jung draws on a tradition of German philosophy. A line of thought, which has always assumed that there are *a priori* categories of perception, that the human mind contains universal forms which shape human perception and reasoning.

"From these references it should be clear enough that my idea of the archetype – literally a pre-existent form – does not stand alone but is something that is recognized and named in other fields of knowledge." (CW 9/1, para. 90)

Kantian categories

Jung is clearly influenced by Kant's philosophy, which also emphasises that time, space, and causality are a priori forms of apperception ahead of any actual experience.
Jung says explicitly that archetypes are "similar to the Kantian categories" (CW 10, p. 10)
they are "categories analogous to the logical categories which are always and everywhere present as the basic postulates of reason .. Categories of the imagination " (CW 11, p. 517-18)

"When that happens, nothing is gained by brushing them aside as ridiculous, for archetypes are among the inalienable assets of every psyche. They form the "treasure in the realm of shadowy thoughts" of which Kant spoke." (CW 9/1, para. 160)

Platonian ideas

Jung compares his concept of archetypes with Plato's ideas in several of his writings. He says they are positioned in no real place but in a transcendental sphere. The true archetype is not accessible by consciousness but is of a transcendental nature. The archetype even has an *a priori* knowledge of its aim which comes close to supernatural forces (Jung CW 8, para. 411; CW 9/I, para. 68).

> *"Archetype is an explanatory paraphrase of the Platonic εἶδος. For our purposes this term is apposite and helpful, because it tells us that so far as the collective unconscious contents are concerned we are dealing with archaic or – I would say – primordial types, that is, with universal images that have existed since the remotest times." (CW 9/1, para. 5)*

> *"The true nature of the archetype is not consciously apprehendable, that means it is transcendent, therefore I call it psychoid."*

He points out the parallels to Plato's idea concept: '…the eternal ideas are primordial images, which are stored in an otherworldly place as transcendent forms' (Jung, CW, 9/1, para. 68). Jung confers to the archetype, moreover, almost otherworldly qualities: '…the archetype determines the type and the process of the shaping with apparent pre-knowledge or in *a priori* possession of the goal' (Jung, CW 8, para. 411).

The use of Platonian ideas influences Jung to even argue that archetypes have a transcendental nature:

> *"[…] These formae correspond to the Platonic Ideas, from which one could equate the scintillae with the archetypes on the assumption that the Forms "stored up in a supracelestial place" are a philosophical version of the latter. One would have conclude from these alchemical visions that the archetypes have about them a certain effulgence or quasi-consciousness, and that numinosity entails luminosity. […]" (CW 8, para. 388)*

In his theories around the archetype concept, Jung is an outspoken Platonian. He regards the archetypes as analogous to the platonic ideas and as preceding every experience. The ideas or respective archetypes first produce the experience of reality by organising the experience of reality. Jolande Jacobi (1986) makes this even more clear:

> "An Aristotelian would say: the archetypes are images formed from the experience of real fathers and mothers. A Platonian would say: the archetypes have first become fathers and mothers because they are pre-images, the prototypes of phenomena. The archetypes are formed a priori for the individual, originating from the collective unconscious and therefore excluded from a sense of individual becoming or fading away." (Jacobi 1986, p. 51)

> "The term Archetype is not coined by Jung, and Jung points out its origin in patristic writings as an "explanatory paraphrase of the Platonic *eidos"* (CW 9, I, p.4). Jung´s unique contribution was to use the idea of archetype in a psychological sense with reference to contemporary people. Archetypes were for him "typical modes of apprehension" (CW 8, p.137) – that is, patterns of psychic perception and understanding common to all human beings as members of the human race." (Hopcke 1989, p. 13)

The transcendental concept

So it becomes clear that there is also a transcendental conceptualization of archetype to be found in Jung's works. In his paper "On the nature of the psyche" (CW 8) Jung deals with the ambiguity of his archetype concept in the sense that it has a material, if not biological base, and on the other hand is located on a transcendental sphere. The solution he finds is that archetypes in general have an inherent structure of opposites. For the archetype in general this means that on one end of the polarity the archetype is characterized by matter/body/instinct, whereas on the other end of the polarity it is characterized by spirit. In so far, it cannot be clearly stated that the archetype is psychic (CW 8, para 439); Jung therefore coins the term psychoid to describe this structure of opposites inherent in the archetype. To elucidate this concept, he uses the spectrum of light as a metaphor, with one end characterized by violet, the other by infrared. This also implies that every archetype contains a wholeness regarding its specific theme or content.

> *"The archetype is a spirit or pseudo-spirit: what it ultimately proves to be depends on the attitude of the human mind. Archetype and instinct are the most polar opposites imaginable, as can easily be seen when one compares a man who is ruled by his instinctual drives with a man who is seized by the spirit. […]" (CW 8, para. 406)*
>
> *"[…] Now, it is, as it happens, rather more than just an edifying thought if we feel bound to emphasize that the archetype is more accurately characterized by violet, for, as well as being an image in its own right, it is at the same time a dynamism which makes itself felt in the numinosity and fascinating power of the archetypal image. […]" (CW 8, para. 414)*
>
> *"But we cannot stop even at this realization, for it turns out that all archetypes spontaneously develop favourable and unfavourable, light and dark, good and bad effects." (CW 9/2, para. 423)*
>
> *"The natural archetypal symbolism, describing a totality that includes light and dark, contradicts in some sort the Christian but not the Jewish or Yahwistic viewpoint, or only to a relative degree. The latter seems to be closer to Nature and therefore to be a better reflection of immediate experience." (CW 9/2, para. 427)*

The process idea: Individuation

These reflections result in Jung's idea that there is an inherent dynamism in the archetypes, respectively in the collective unconscious, which can be described as a process with a certain aim. The archetypes represent a totality or an image of wholeness of the personality. Their influence on the person can most generally be characterized as initiating a process of development of the personality towards integration and greater wholeness. This process results in a synthesis of consciousness and the unconscious, as a solution for the tension between the two.

> *"I use the expression Individuation in the sense of that process which generates a psychological individual, which means a separate, indivisible, and whole individual." (Jung CW, 9/1, para. 490)*
>
> *"[…] the archetype determines the type and the process of the shaping with apparent pre-knowledge or in a priori possession of the goal." (Jung, CW 8, para. 411)*

"These developments meant the gradual transformation of the archetype into a psychological process which, in theory, we call a combination of conscious and unconscious processes." (CW 9/1, para. 297)

"The fact that an idea so utterly archaic could rise to such exalted heights of meaning not only points to the vitality of archetypal ideas, it also demonstrates the rightness of the principle that the archetype, because of its power to unite opposites, mediates between the unconscious substratum and the conscious mind. It throws a bridge between present-day consciousness, always in danger of losing its roots, and the natural, unconscious, instinctive wholeness of primeval times." (CW 9/1, para. 293)

"[…] Psychologically, however, the archetype as an image of instinct is a spiritual goal toward which the whole nature of man strives; it is the sea to which all rivers wend their way, the prize which the hero wrests from the fight with the dragon." (CW 8, para. 415)
(This is a reference to the hero myth, which Jung regards as an archetypal image for the individuation process and its stages).

Jung argues that he found the general structure of this process by investigating the images produced by his patients:

"[…] I therefore took up a dream-image or an association of the patient´s, and, with this as a point of departure, set him the task of elaborating or developing his theme by giving free rein to his fantasy. This, according to individual taste and talent, could be done in any number of ways, dramatic, dialectic, visual, acoustic, or in the form of dancing, painting, drawing, or modelling. The result of this technique was a vast number of complicated designs whose diversity puzzled me for years, until I was able to recognize that in this method I was witnessing the spontaneous manifestation of an unconscious process which was merely assisted by the technical ability of the patient, and to which I later gave the name "individuation process. […]" (CW 8, para. 400)

"The chaotic assortment of images that at first confronted me reduced itself in the course of the work to certain well-defined themes and formal elements, which repeated themselves in identical or analogous form with the most varied individuals. I mention, as the most salient characteristics, chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third; the quaternity (square,c cross); rotation (circle, sphere); and finally the centring process and a radial arrangement that usually followed some quaternary system. Triadic formations, apart from the complexion oppositorum in a third, were relatively rare and formed notable exceptions which could be explained by special conditions. The centring process is, in my experience, the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect. The typical features listed above go to the limits of abstraction, yet at the same time they are the simplest expressions of the formative principles here at work. In actual reality, the patterns are infinitely more variegated and far more concrete than this would suggest. Their variety defies description. I can only say that there is probably no motif in any known mythology that does not at some time appear in these configurations. If there was any conscious knowledge of mythological motifs worth mentioning in my patients, it is left far behind by the ingenuities of creative fantasy. In general, my patients had only a minimal knowledge of mythology." (CW 8, para. 401)

"As a numinous factor, the archetype determines the nature of the configurational process and the course it will follow, with seeming fore-knowledge, or as though it were already in possession of the goal to be circumscribed by the centering process. […]" (CW 8, para. 411)

In this last quote Jung specifies the process as centering. Here the archetype of the Self must be introduced, because in Jung's view this archetype represents the transcendent centre of the process and of the personality. In the centre of the psyche, which Jung describes as the Self, an archetypal structure can be assumed. This Self would be a kind of structure which expresses wholeness as well as individual uniqueness. As the Self is centre of the person as well as its totality simultaneously, it is a paradoxical description which Jung nevertheless

consciously makes. The concept of the Self discussed here would also be a very clear example that Jung conceptualized archetypes as transcendent.
The quote is interesting in the sense that it implies the idea, that there is something like a consciousness, an intention or a higher wisdom contained in the unconscious, which has the aim to move the personality towards wholeness.

> *"[The Self] is at once external and inside, totally ourselves and also unrecognisable to us, a virtual middle point of mysterious constitution […] The beginnings of our whole spiritual life seem to spring inextricably from this point. Our highest and ultimate goals seem to come out of it. It is a paradox that is nevertheless inevitable if we want to label something that is beyond the possibility of our understanding." (Jung CW 7, p. 260)*

> *"The Self, moreover, is an archetype that invariably expresses a situation within which the ego is contained. Therefore, like every archetype, the Self cannot be localized in an individual ego-consciousness, but acts like a circumambient atmosphere to which no definite limits can be set, either in space or in time. (Hence the synchronistic phenomena so often associated with activated archetypes)." (CW 9/2, para. 257)*

Over the course of a person's life, movement comes from the Self, confronting the person with a number of archetypal stages.

> *"For years I have been observing and investigating the products of the unconscious in the widest sense of the word, namely dreams, fantasies, visions, and delusions of the insane. I have not been able to avoid recognizing certain regularities, that is, types. There are types of situations and types of figures that repeat themselves frequently and have a corresponding meaning. I therefore employ the term "motif" to designate these repetitions. Thus there are not only typical dreams but typical motifs in dreams. . . . [These] can be arranged under a series of archetypes, the chief of them being . . . the shadow, the wise old man, the child (including the child hero), the mother ("Primordial Mother" and "Earth Mother") as a supraordinate personality ("daemonic" because supraordinate), and her counterpart the maiden, and lastly the anima in man and the animus in woman." (CW 9/I, par. 309)*

This process and its stages are summarized by Jung in the papers contained in volume 7 of the Collected Works. It could be said that Jung's major interest in establishing his psychology was to create something signifying a map of said process. Therefore, Jung referred to alchemy, the study of religions and mythology. The idea is that the archetypes, which shape the process, are also expressed in the form of mythological motifs, and narratives in the myths and fairy tales of peoples of the world.

> *"These products [myth-forming structural elements of the unconscious psyche] are never (or at least very seldom) myths with a definite form, but rather mythological components which, because of their typical nature, we can call "motifs", "primordial images", types or – as I have named them – archetypes. […] In the Individual, the archetypes appear as involuntary manifestations of unconscious processes whose existence and meaning can only be inferred, whereas the myth deals with traditional forms of incalculable age. […] The archetype does not proceed from physical facts, but describes how the psyche experiences the physical fact, and in so doing the psyche often behaves so autocratically that it denies tangible reality or makes statements that fly in the face of it." (CW 9/1, para. 260)*

If the map of this process and its stages were available, elements of the process could be detected in material provided by patients in analyses, e.g. in dreams:

> *"The dream was archetypal – a "big" dream. The wood that grows dusky and turns into a primeval forest means entry into the unconscious. The round pool with the jelly-fish in it represents a three-*

dimensional mandala, the self: wholeness as the goal to which the "archaic appetite" points, the magnetic north which gives the traveller his bearings on the "sea of the world." (CW 9/2, para. 208)

Detailed descriptions of the process as well as of its stages/specific archetypes

As mentioned above, Jung's main interest in establishing his psychology was to provide a detailed description of the process he called individuation, and of the distinct stages of this process, which are equivalent to specific archetypes. This being also the reason for his intense inquiry on alchemy:

> "… Jung found that individual alchemists attempted to develop a method of working with the material and effecting transformation. Though alchemists' methods were irrational, to be sure, based as they were on psychic projections rather than on objective knowledge, Jung found a practical description of inner growth in alchemical attempts to systematize physical substances and the various stages of physical changes purported to occur in the course of the alchemical operations. These various terms also have found their way into many a description of the individuation process: nigredo, for the dark night of the soul, when an individual confronts the shadow with it; separatio, for the moment of emotional and spiritual discrimination; mortification or putrefactio, for the stage at which the old neurotic ways of being are cast off; dissolutio, for the initial disorientation after the old self is discarded." (Hopcke 1989, p. 165)

Another list of the stages of the alchemical process, used for the illustration of the process of psychotherapy, can be found in Edward Edinger's (1985) "Anatomy of the psyche. Alchemical symbolism in psychotherapy". Whereas Jung is often diffuse and vague in his writings on alchemy, making it difficult to grasp what he tries to convey, Edinger succeeds in putting Jung's ideas together into a coherent systematic. He describes a sequence of transformational processes, which together form the individuation process, respectively the psychotherapeutic process: Calcinatio, Solutio, Coagulatio, Sublimatio, Mortificatio, Separatio, Coniunctio.

In general, it can be said that in Jung's idea of the individuation process, the archetypes form a sequence, most clearly described in "The relations between the ego and the unconscious" (CW 7): whereas initially the ego identifies with the person, in the transformation process it must deal with the shadow. If this is accomplished, the ego meets anima/animus and must establish a relationship to the unconscious/to the soul. On the further road, the ego will meet the wise old man and the great mother (the Mana-personalities), which surround the archetype of the Self. The divine child often appears at moments where transformational processes take place, because it symbolizes the new hope for the future. The trickster is a helpful figure, sometimes accomplishing tasks through tricks and twists, which the ego cannot overcome. The coniunctio is closely related to the realization of the Self, which is symbolized in mandala like figures or symbolisms of wholeness, completion etc.
Another model for the individuation process is provided by the mythological pattern of the journey of the hero. Again, this journey can be described as a sequence of stages. A systematic account of this sequence is, however, missing in Jung's works. Nevertheless, the general idea that the myth of the hero is behind transformational processes in the psyche, can be found in "Symbols of Transformation" (CW 5), as well as in other pieces scattered throughout the Collected Works. The idea was later taken up and thoroughly elaborated by Joseph Campbell (1971) in his "The hero with a thousand faces".

Attributes/elements in the hero's story: the divine birth, the descent into the underworld, heroic actions he must undertake, such as battles with dreaded monsters or dangerous tasks to be performed, the presence of helpful companions, the motif of defeat, death, and rebirth. From the above-mentioned quote formal or structural elements of the process can be extracted:

> *"… chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third; the quaternity (square,c cross); rotation (circle, sphere); and finally the centring process and a radial arrangement that usually followed some quaternary system. … The centring process is, in my experience, the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect." (CW 8, para. 401)*

An exemplary representation of an individuation process, based on clinical material and dreams from a personal analysis, can be found in Jung's publication 'Dream Symbols of the Individuation Process' (CW 12). A further example is presented in 'The Empiricism of the Individuation Process' (CW 9/1), in which Jung illustrates a woman's individuation process based on a series of pictures painted by her. These pictures also contain examples of Mandala-symbols. A representation of the unification of opposites as the culminating point of the individuation process can be found in 'The Psychology of Transference' (CW 16).
Robert Hopke (1989) provides the following list of archetypes, which can be found in the collected works of Jung: ego, shadow, persona, anima and animus, self, mother, father, puer, the divine child, Kore/the maiden, hero, wise old man, trickster, coniunctio.
It is important to note, that these - what could be called the classical archetypes - are all part of the stages of the individuation process. These were specifically dealt with by Jung in several papers and are equivalent to the list provided by Hopcke. This stands in contrast to, for example, a Kantian category of perception, which is also described as archetypal.

In my overview of classical archetype theory (Roesler 2021) I have provided a summary (see below) of those papers, in which Jung concerned himself extensively with the central archetypes: The mother archetype, the archetype of the (divine) child, the figure of the trickster, the previously mentioned Mandalas, and rebirth.

In his work 'The psychological aspects of the Mother-archetype' (CW 9/1), Jung engages only briefly with the actual archetype of the mother, in order to more exhaustively deal with the development and formation of the mother complex which follows. He references his extensive presentation of the mother archetype and how it shaped a young woman's psychotic fantasies, in his work 'Symbols of Transformation'. The mother archetype can be experienced first-hand in the mother or grandmother, as well as in the stepmother or mother-in-law or, indeed, in all female nurturing figures. In an impersonal sense, the archetype of the mother is embodied in the godmother, the virgin Mary, Sofia, or the typical polytheistic female gods such as Kybele, Demeter etc. Nevertheless, the archetype of the mother can also be expressed in abstract images such as of paradise, the (mother) church, the university (Alma Mater), the city, the country (for example Mother Russia) or still more abstractly as the earth, matter, the moon, the cave and so on. All these forms of expression can be either positive or negative. When positive, the archetype takes the form of the nurturing, protecting, safety-conferring, supporting (socialisation and teacher) and overall motherly love. The goddesses of destiny,

Parzen, as well as the Indian Goddess Kali are, on the other hand, embodiments of the devouring and destructive aspect. Moreover, abstract images of the grave, depth, death, or other devouring monsters like Skylla and Charybdis can embody the archetype of the mother. A form of the negative aspect of the mother-archetype, which frequently appears in European culture, is the witch or the evil stepmother in fairy tales. Jung's pupil Erich Neumann (1974) extensively examined the endless variety of forms of expressions of the mother-archetype in his comprehensive work (with numerous illustrated representations), much more than Jung ever did himself. He describes a collective process of differentiation, which the archetype of motherliness or femininity can pass through in cultural representations. This may begin, for example, with a figure from earth-like material (chthonian), and extend to the embodiment of the highest form of female intelligence, Sofia. The differentiation in this representation goes clearly far beyond what Jung himself had determined, in that it effectively offers a scale of differentiation to be able to organize the different embodiments of the mother-archetype.

In his work 'On Rebirth' (CW, 9/1), Jung does something similar for the myth of rebirth, in which he illustrates the different levels or stages of the development of this archetype. For example, the identification with a group, with cultural heroes, magical processes and so on. He then exemplifies these different steps using the figure of Chadir, the 'Verdant One' from the 18th surah of the Quran, which describes a mystery of rebirth, and goes on to parallel this with numerous cultural and religious examples.

Jung's work on the psychology of the child archetype was originally part of his collaborative publication with Karl Kerenvi about 'the God child' (Jung CW, 9/1). Here Jung illustrated in detail the universal basic structure of the meaning of the 'godly' child. The child begins as something plain and unassuming, born in a plain and improbable place (for example, Zeus in the cave, Jesus in the stable) and must be hidden from persecution (for example, from Herod). In the beginning the child is seldom trusted, although the saviour of his age emerges directly from this unassuming person. Jung went on to prove this basic structure through numerous myths and religious scenes from around the world. This is, in my opinion, a hugely successful description of the content and forms of expression of an archetype, because of its structural nature. Moreover, Jung can illustrates how the motif of the child also emerges, for example, in the dreams of modern clients in psychotherapy. These contain similar meanings, which can be summarised as 'the child which provides future'. Indeed the emergence of the motif of the child in psychotherapy is an anticipation of future developments, and therefore therapeutically highly meaningful. Typically, the child would initially be denied in dreams, because it appears to be plain and worthless (a typical example for this is the Legend of Christopher, in which the giant initially underestimates the small child's weight beyond all measure). It frequently symbolises, however, precisely the parts and potentials of the client from which the decisive transformation of the personality can occur. Typically for the motif of the child is also the miraculous birth as well as the abandonment and the exposure of the child.

Finally, Jung has also extensively covered the figure of the trickster or the rogue ('On the Psychology of the Trickster', Jung CW, 9/1). In European culture this archetypal figure frequently emerges in the form of the fool or as "Dümmling", dumb Hans, or "Hanswurst" in fairy tales. Jung illustrates in his discourse, that this figure has an almost religious meaning and plays an essential role in sacred events in many cultures. The holy clowns in the ceremony of the Pueblo-Indians in southwestern USA is given as an example. These figures frequently point the finger on painful wounds or taboos in a society, openly addressing them and setting potential healing transformations in motion through this exposure. The trickster is clearly an ambivalent character. He can clearly possess destructive characteristics, but also contain the

potential to regard reality impartially or from a new perspective, and by doing so initiate necessary changes. Like the shadow, the trickster will initially be experienced as repulsive and be rejected, however contains unknown value and the potential to alter reality.

Apart from the archetype of the Self, **Anima/Animus** are the archetypes with which Jung concerned himself the most:

> *"The reason for their behaving in this way is that though the contents of anima and animus can be integrated they themselves cannot, since they are archetypes. As such they are the foundation stones of the psychic structure, which in its totality exceeds the limits of consciousness and therefore can never become the object of direct cognition." (CW 9/2, para. 40)*
>
> *"The Archetypes most clearly characterized from the empirical point of view are those which have the most frequent and the most disturbing influence on the ego. These are the shadow, the anima, and the animus." (CW 9/2, para. 13)*
>
> *"Every man carries within him the eternal image of woman, not the image of this or that particular woman, but a definite feminine image. This image is fundamentally unconscious, an hereditary factor of primordial origin engraved in the living organic system of the man, an imprint or "archetype" of all the ancestral experiences of the female, a deposit, as it were, of all the impressions ever made by woman – in short, an inherited system of psychic adaption. Even of no women existed, it would still be possible, at any given time, to deduce from this unconscious image exactly how a woman would have to be constituted psychically. The same is true of the woman: she too has her inborn image of man. Actually, we know from experience that it would be more accurate to describe it as an image of men, whereas in the case of the man it is rather the image of woman. Since this image is unconscious, it is always unconsciously projected upon the person of the beloved, and is one of the chief reasons for passionate attraction or aversion. I have called this image the "anima," and I find the scholastic question Habet mulier animam? especially interesting, since in my view it is an intelligent one in as much as the doubt seems justified. Woman has no anima, no soul, but she has an animus. The anima has an erotic, emotional character, the animus a rationalizing one. Hence most of what men say about feminine eroticism, and particularly about the emotional life of women, is derived from their own anima projections and distorted accordingly. On the other hand, the astonishing assumptions and fantasies that women make about men come from the activity of the animus, who produces an inexhaustible supply of illogical arguments and false explanations." (CW 17, para 338)*
>
> *"Anima and animus are both characterized by an extraordinary many sidedness." (CW 17, para 339)*

In "The relations between the ego and the unconscious" (CW 7):

- the anima produces moodiness, the animus opinions of a very fixed, solid nature, based on seemingly untouchable principles
- the animus is extroverted, the anima introverted
- in a positive sense the animus creates inventions, ideas, he is a creative being
- the inner masculine in the woman produces creative germs, which helps the woman to inspire man
- the animus appears as a plurality, whereas the anima is a singular personality

In CW 9/II:

- the conscious attitude of a woman is in general exclusively personal, the world consists of fathers and mothers, brothers and sisters, parents and children; the rest of the world consists of similar families

- the world of the man is the people, the state, companies and trusts etc. for him the family is just a means to an end, the foundation of the state etc.
- for the man the anima has a very sharp defined shape, whereas the animus for the woman is vague, difficult to grasp, Proteus like
- the anima is identical with the motherly eros, the animus the paternal logos
- the female consciousness is characterized more through the connecting eros then by the differentiating and insight seeking logos; in men the relationship function, eros, is usually less developed

The Shadow

> *"By way of introduction, I described those concepts and archetypes which manifest themselves in the course of any psychological treatment that penetrates at all deeply. The first of these is the shadow, that hidden, repressed, for the most part inferior and guilt-laden personality whose ultimate ramifications reach back into the realm of our animal ancestors and so compromise the whole historical aspect of the unconscious." (CW 9/2, para. 422)*

How are archetypes used in the psychotherapeutic context?

Examples and uses of the concept can be found in many places in Jung's works. One outstanding example are the Tavistock Lectures of 1935, later published as *"Analytical Psychology. Its Theory and Practice*" (CW 7) and thought to be a general introduction into analytical psychology. The third of these lectures deals particularly with archetypal symbols in dreams. Among others, Jung refers to the dream of a 40-year-old man with symptoms of vertigo, in which a monster appears in the shape of a lobster. Jung interprets this symbol as a message from the unconscious that the cerebro-spinal and sympathical system of the dreamer rebels against his conscious attitude, with the explanation that a lobster only has this kind of nervous system.

A widespread use of archetypes in analytical psychology is making an association between an image, pattern, or symbol within the dream of the client to a fairy tale or other mythological story. This is then utilised as informative material for the further process of the therapy (extensive examples for this can be found e.g., in the publications of Marie-Louise v. Franz and Edward Edinger. A more recent example is Kathrin Asper's (1987) book on narcissistic disorders). The general idea, put more technically, is that the unconscious of the client makes a connection to a broader archetypal pattern, which is spelt out in the mythological story in symbolical form, and *which contains additional information (in respect to the conscious information that client and therapist have)* that is helpful for the therapeutic process. In this sense, archetypes are transporters of information which foster psychological development; information which comes from beyond and has – by definition - never been conscious. This, I hope, clarifies my point as the crucial question arises: Where does this information come from, if it has never been experienced by the individual? The Jungian therapist relies on the belief that the whole of archetypal information is potentially accessible to any of his/her clients via the (collective) unconscious and can be activated in the suitable circumstance.

This means that a concept of *universal* archetypes is necessary for analytical psychology, since we count on the existence of all archetypes in every one of our clients. If we could not count on this, we would be unable to work as we do.

It also signifies that the kind of archetypes, with which analytical psychology is concerned, are those of a complex and symbolic nature: archetypes that describe process patterns, transformations from a starting point to a solution, patterns which can be translated into a narrative form. The “archetype of the stone”, for example, is theoretically not necessary for analytical psychology; neither for the explanation of cultural phenomena, nor for clinical use. This aspect of archetypes as universal patterns is at the core of what Jung meant by the term archetype. It is at the core of analytical psychology and its clinical practice.

4 Problems and criticism

> "A science which hesitates to forget its founders is lost." (Whitehead 1916, p. 413)

> "How does depth psychology develop a psychological theory that is itself self-conscious? In other words, how does it develop a theory capable of consciously carrying an awareness of its own figural aspects and implicit assumptions, that is, its own unconsciousness?" (Kugler 1990, p. 317)

In this section I will attempt to point out problems that are inherent to Jung's conceptualizations (and also those from the survey). These are inconsistencies, contradictions, aporia and similar. By inherent problems I mean the kind of problems that are obvious to the critical reader, without testing the assumptions of archetype theory against insights and findings from neighbouring disciplines. I will also highlight the criticism that was formulated in the development of analytical psychology - and also from outside - to the present day. The second approach will be applied in the following chapters: in the theories around archetypes - by Jung and others - statements are made and assumptions are put forward which can actually be tested on the background of insights and findings from biology/genetics, anthropology, palaeoanthropology and prehistory, religious studies and comparative religion, studies in mythology etc.

Structure without content?

A major problem lies in Jung's conception of the archetype as such: Jung argues that the archetype exists only as structure without content. It is difficult to imagine even a single mental concept which carries no content, since, as Knox argues, even a pattern or an organizing structure can never be entirely without representational content and the archetypal forms to which Jung refers imply symbolic meanings and therefore mental content (Knox 2003, p.33). Of course, it is understandable what Jung tries to convey, that there are similarities in the structure or patterns that archetypes produce, but that the contents can vary, e.g. from culture to culture. But this argument creates the problem of how this contentless structure of the archetype as such can be conceptualized, how it is stored in the brain/genome/biological outfit of humans etc. In addition, the concept of the archetype as such, a form free of content, was hardly maintained by Jung. Instead, numerous examples of archetypes are determined very clearly by their content (for example the archetype of the hero myth).
Hopcke (1989) attempts to defend Jung's viewpoint, while at the same time acknowledging the confusion that is created by Jung's definitions.

> "Nevertheless, the confusion between the content of the archetype and the archetype itself is understandable since particular archetypes are referred to by their symbolic or imaginal manifestations. Jung talks about the archetypes of the anima/animus, the Divine Child, the Great Mother, the Wise Old Man, the Trickster, and the Kore, or Maiden – archetypes whose content is anthropomorphic and whose personalization is necessary in order to bring the psychological power of the pattern into consciousness for greater awareness and individual growth. Yet there are archetypes whose content is less anthropomorphic, less readily personalized, such as the archetype of wholeness or the archetype of rebirth. These archetypes Jung called archetypes of transformation, "typical situations, places, ways and means, that symbolize the kind of transformation in question" (CW 9, I, p.38)." (Hopcke 1989, p. 15-16)

I believe that the problem can be clarified, when instead of the terms structure and content the term information is used, and an information theory approach is applied: even though Jung attempts to differentiate between content and structure, from an information theory point of view content as well as structure must be regarded as containing information, in so far as they are viewed as being specific. It then, however, becomes clear that also the archetype as such contains information, otherwise it would not be specific, and all archetypes would be the same, which is not the case ('the archetype possesses …an invariable central meaning, which constantly only in principle and not in a concrete form, determines how it appears' (Jung, CW, 9/1, § 95)). No mental content or structure can be imagined without being specified. If the archetypes would not contain specifications, they would all be the same, and no distinction between, for example, the anima and the wise old man would be possible. Seen from this point of view it becomes clear that also the archetype as such contains information. This automatically creates the problem of where this information is stored.
Humbert (1988) took up the idea to apply the concept of information theory to Jung's theories around archetypes. However, this leads to the assumption that archetypes are genetically transmitted.

> "The role Jung attributed to archetypes is perfectly intelligible if one uses the concept of information theory: (1) archetypes condition, orient, and support the formation of the individual psyche according to a plan that is inherent to them; (2) whenever the psyche is disturbed, archetypes intervene by considering information received either from the psyche itself or from the environment; (3) archetypes ensure an exchange of information between the Psyche and its surroundings. Let me add that for Jung, and he was not hesitant on this point, the archetypes are inscribed in the body in the same way that all organs of information are inscribed in living matter. This implies, among other things, that archetypes are genetically transmitted." (p. 101)

In more recent publications, the problematic inherent in this kind of argumentation is pointed out clearly: "Jung jumps from the collective unconscious immediately to archetypes without spelling out exactly how archetypal images form from the so-called archetype-as-such or "form without content", and unfortunately, he only confuses the issue with muddled metaphysical speculations involving Kant" (Goodwyn 2020a, p. 920)

The relationship of stability and change in archetypes

"The archetypes are the imperishable elements of the unconscious, but they change their shape continually" (CW 9/1, para. 301).
The relationship of stability and change in archetypes is not clear. If one adds the idea that archetypes have developed as a ‚precipitate of endlessly repeated experiences', this would imply that archetypes can change through differences in the environmental conditions of human life, including cultural changes.
There is a certain tension between Jung's general assumption that the archetypes have come to exist from early prehistoric times and have not changed, although the conditions of life for humans in modern times are enormously different compared to conditions during the Stone Age - what he uses as an argument for explaining archaic behaviours or ideas in modern humans. On the other hand, he believes that "endless repetition" and "countless, similar experiences" (CW 6, para 760) have inscribed these archetypal patterns into the biological

outfit of humans. This implies that there has been a time when experiences and environmental conditions shaped the archetypes and inscribed them into the genetic makeup of humans. But, as far as Jung can be understood, this is not the case anymore today; today archetypes are stable. So, there is a certain contradiction between stability and change in his conception of archetypes. This produces the question of why the archetypes have not changed in the last millennia since the evolution of civilization.

The cultural vs. the biological, the personal vs. the collective

Another dissonance can be found in Jung's theories concerning the relation between the individual and the universal in the archetype. As for example in the following quote:

> *"The psyche of the child in its preconscious state is … already preformed in a recognizably individual way, and is moreover equipped with all specifically human instincts, as well as with the a priori foundations of the higher functions." (Jung 1989, para. 348)*

Especially the archetype of the Self is conceptualized as containing the most individual, the uniqueness of the person and at the same time being a universal structure. A similar kind of confusion concerns the relationship of the cultural versus the biological, which leads to such contradictory statements as the following (from the survey):

> "While the archetype as a structure is vital, representations of the archetype are only typical for the species or individual. We may detect an archetypal woman, man, child, enemy, or experience the archetypally American, French, Japanese, feminine, masculine, human, unhuman etc… These definitions can be experienced as stigmatising or old-fashioned, but the fact remains, they all represent a real or imagined attitude towards life, and provide us with the information of what is typical, or archetypal, for just that way of living."

> "This question requires that we pay attention to Jung's distinction between the archetypal image, the archetype in itself and the symbol. It is my opinion that these terms are too easily confused in discussions of Jung's theories. In a number of places Jung makes the point that an archetype—say, The Hero—can be signified by a multitude of representations. The way in which these images work, psychologically, is, as Jung remarks in the Dream Seminars, to provide texture and embodied significance to what would otherwise appear as a simply mechanical process. I would suggest that many of these images, which most commonly make up the catalogues, so-called, of archetypal images, are culturally transmitted, albeit of deep historical depth. One of the problems with dealing with archetypes, however, is that these images are too easily confused with symbols."

The ‚This-is-all-the-same'-Error

In connection with the discordancy regarding the relationship of the personal and the universal, a pattern of arguments can be observed in Jung as well as in Jungian publications to the present day, which I would name the ‚This-is-all-the-same'-Error. By this I mean a pattern of hypotheses which identifies certain similarities or analogies between cultural habits or beliefs, mythological narratives or dream elements etc. Behind these observed similarities, an archetype is immediately identified, without consideration of any apparent differences or differentiations and possible alternative explanations (there is an example with a detailed discussion concerning the concept Shamanism in the chapter on Religion). This problem has already been pointed out in earlier criticisms:

> "Jung's mistake was to hypothesize a repetitive, and in any case improvable, fixity in that rich world of forms where eventual similarities are based not on the probable a priori structures but on the all too human relative constancy of man's needs." (Trevi 1993, p. 63; quoted in Connolly 2018)

Angela Connolly (2018) has discussed this problem at length and draws a critical conclusion:

> "The difficulty in analogy, therefore, is finding enough similarity to warrant giving a common name to disparate items while acknowledging their significant variations. Analogies should not be confused with establishing identity or isomorphism. This, however, is exactly what Jung did when he conflated images taken from very different cultural and historical contexts … Conflating images in this way lead Jung to believe that while the content of images varies, the underlying form can be reduced to a limited number of uniform and internal patterns. […]" (Connolly 2018, p. p. 72)

An unlimited number of archetypes?

Another problem is the specific number of archetypes which exist.

> "There are as many archetypes as there are typical situations in life." (CW 9/I, para 98)

Jung does not provide much specification of what he means by typical situations in life. Furthermore, the majority of typical situations that humans experience are culturally shaped.

> *"The basic principles, the archetypes, of the unconscious are, because of their evocativeness, indescribable, despite being recognisable. The intellectual judgement always seeks, naturally, to assess their uniqueness and thus get past the essence, because above all the only thing about their nature which can be assessed, is their ambiguity, their almost immeasurable wealth of meaning, which each clear formulation makes impossible." (Jung, CW, 9/1, § 80)*

Together with the second quote it becomes very difficult to clearly define what an archetype is and what it contains. This stands in strong contrast to the actual descriptions that Jung provided about several archetypes; namely anima and animus, the great mother, the wise old man, rebirth, the divine child, to name just a few. It cannot be denied that, according to these descriptions, archetypes are specific. So, in a broader sense, the problem of the number of archetypes relates to what could be called the catalogue of archetypes. There is no consensus at hand, which elements this catalogue of archetypes should contain: only classical archetypes which Jung described (anima/animus, the great mother, the wise old man etc.); abstract categories of perception; 'all the typical situations in human life' - but from which epoch: prehistory, classical antiquity?
The use of the term archetype in analytical psychology can itself be described as inflationary, as will be clear in, for example, the following quotation from the 'Dictionary of Jungian Psychology' (Samuels et al. 1986, p. 44): 'The number of archetypes is theoretically unlimited'. This unclear state of affairs also manifests itself in a number of examples from the survey:

- "Applying the strict archetype concept described so far, there seems to be only a manageable number of archetypal forms of expressions, and the inflationary use of the term archetype must be clearly rejected. The following motif clusters appear in culturally formed conglomerates with cognitive, emotional and action-wise components: (The great) Mother and Father, the Wise/the Old, the quest/the riddle, the heroes-journey, death/birth, the Self/God, the Devine Child, the Healer. There may well be more waiting to be discovered, but the criteria should remain strict. Most of the meanwhile countless terms for archetypal motives can be subsumed under one of the named, classical Jungian figures as Anima/Animus, Shadow/Persona are excluded because of their clear personal-psychological components. Their collective part once again seems to be subordinate to the ones cited above."

- "There are only a small set of archetypal motifs, and patterns, I prefer a narrow notion of the archetype."
- "There are no archetypal entities, as "archetypal" is an adjective only applicable to geometry of behaviour and really only meaningful in the context of a particular species. The question as to which concept/entities are examples of archetypal images is meaningful but of less depth than the question as to the nature of archetype proper. Confusing the two questions has, in my opinion, led to a progressively more superficial discussion of archetype in Analytical Psychology."
- "Die Zahl der archetypischen Grundmuster entspricht in etwa der Zahl der typischen Situationen, in die der Mensch aufgrund seiner Funktion und Struktur und seiner öko- sozio-kulturellen Umwelt im Laufe seines Lebens geraten kann."

Different levels of complexity

Archetypes are images, while also having an emotional aspect. They may also be thoughts, ideas, or beliefs. These are different psychic elements, and from a developmental point of view differ enormously in their level of complexity. On the one hand, Jung describes the archetype of centering, which describes the process he could observe in his patients in psychiatry, and which is pictured in mandala-like images. On the other hand, Jung calls the Myth of the Hero an archetype, which is a complex narrative with several different stages. These two concepts are on highly different levels of complexity, the one can be defined as an abstract form or shape, the other is a complex narrative.

The impact of archetypes: determination, (in)formation, structuring, ordering?

Another question concerns the impact archetypes have on the psyche and the development of the personality. There is a surprisingly large number of experts in the survey who still argue that archetypes **determine** psychic experiencing and behaviour, even the life of the individual (and so does Jung in many quotes). At the other end of this scope, the general assumption can be found that archetypes are nothing more than basic categories for human perception and action.

The epistemological status of archetypes

A major problem is the broad variety of definitions and conceptualizations to be found in Jung's works, which are, at least partly, epistemologically incompatible. It is not possible to argue that the archetype is a genetically transmitted pattern of behaviour, and at the same time to state that archetypes have their place in a transcendental sphere and are principally in themselves not knowable. This problem is heightened by the fact that, as far as can be seen in Jung's writings, he was not able to reflect on these incompatibilities and inconsistencies.
Other Jungian authors have pointed out these contradictions regarding the archetypes (e.g., Knox 2003, Hogenson 2004; Pietikainen 1998). In analysing Jung's writings on archetypes several different conceptualizations or explanatory concepts can be found, which partly contradict each other. Knox previously outlined 'four models that repeatedly emerge in the debate about archetypes', identifying these as biological entities, organising mental frameworks of an abstract nature, core meanings containing representational content and eternal metaphysical entities (Knox 2003, p.24). In my earlier work on archetypes (Roesler

2012, 2021) I have given a list of four conceptualizations of archetypes that overlap with but also differ from Knox, thus underlining the confusing variability involved in Jung's discussion of his core concept: a biological conceptualization, a statistical definition (referring to the finding of inter-individually similar core complexes in his Association studies), a cultural concept, and a transcendental conceptualization.

When we look at these different approaches, all presented together in Jung's works, it becomes obvious that they contradict each other: a concept that is thought to be transcendental and having no place in this world cannot be at the same time a biological entity and part of the genetic code (see also Knox 2003). Jung mixes up theories that are categorically on different levels and not compatible. There is no consistent epistemology of archetypes in Jung and in my view, still missing in analytical psychology. Even more problematic is that Jung never discusses these inconsistencies and contradictions in his theory, so that it must be assumed that he was unaware of them. His concept of the archetype-as-such, which he formulated in 1947 to solve these problems, is no real solution (see above).

Jung jumps from one epistemological position to the other (Neher 1996). Kugler (1990) reviews the different positions that can be found in Jung, on the basis of the development of epistemology from modernism to postmodernism. A first position that Jung takes is in line with the modernist approach, which was also basic for Freud's approach and that of early psychoanalysis. In this sense there is an objective meaning to elements or events in the inner world, e.g., a dream. In psychoanalysis there is the idea of a 'correct' interpretation. But Jung goes even further than that, by mentioning: "We may say that the image represents the meaning of the instinct" (CW 8, para. 398). The same can be found in Jung's direct followers: "The form and the meaning of instincts are represented in the images produced by the archetypes" (von Franz 1980, p. 81). These statements imply that the meaning which the archetype has for the individual is a feature directly attached to the archetype itself. That is, it exists in itself and is independent from the experiencing individual, and not, as a humanistic viewpoint would imply, as a result of interpretation. For Jung, the meaning of the archetype is already pre-existent and has been forever eternal- therefore it is an 'arche' (from old)- type. By referring to this viewpoint Kugler points out:

> "The process of factoring time into a phenomenological understanding has disclosed that the ultimate grounds of Western knowledge all lapse into a temporal regress or progress. For example, Freud and the modernists attempted to explain the meaning of the text through authorial intention; Jung and the structuralists later tried to account for meaning and interpretation through unconscious psychic structures. These solutions are not solutions at all, because they do not account for the "authority of the author" or the "structurality of structure". These accounts simply posit the author or structure as existing in time prior to the emergence of the text, psyche, or system of thought." (Kugler 1990, p. 314-15)

Consequently, it is necessary for Jung to argue that archetypes were formed millennia back in prehistoric times.

Kugler criticizes this view from a postmodernist viewpoint and reveals the fallacies and inconsistencies of this empirical approach by Jung, which is a form of naïve realism:

> "The movement from structuralism to poststructuralism is a shift from seeing the text as a closed entity with definite, decipherable meanings to seeing the text as irreducibly plural, oscillating between literal and figural significance that can never be fixed to a single centre, essence, or meaning. .. For we

> have come to realize that language of any sort - be it literary, philosophical, clinical, or scientific - does not allow for a transparent view to the so-called empirical world. .. The modernist fantasy of an objective hermeneutic imagined the reader's subjectivity to be a transparent focus of the lens through which a detached consciousness viewed the content of a stable text. This empiricist idea continued through the structuralist tradition, except that the focus of the detached observer shifted from the content of the text to its structure. … The modernist-structuralist idea of a detached observer is being replaced by the idea of an intersubjectivity in which the images in the text interfuse with and alter the lens of the viewer reading the text. We not only read texts, but we read the world through texts. And it is precisely this realization that has undermined our epistemological confidence in the authority of our transcendental signifiers. .. Postmodernism with its intense focus on the problematics of self-reflection, textuality, and the process of psychic representation has revealed that these unquestionable absolutes are not the eternal, archetypal structures we once thought them to be, but are rather temporal and linguistic by products resulting from a representational theory of language." (Kugler 1990, p. 315-16)

When Jung says: "Between intellectus and res there is still anima, and this esse in anima makes the whole ontological argument superfluous" (CW 6, para. 66), he does not only present himself as a thoroughly essentialist thinker, who attributes a privileged ontological position to anima/soul, he also openly denies that there is any sort of epistemological problem at all. This does not solve the inherent problems; it demonstrates that he was not aware of them. The majority of his statements about archetype have an essentialist character, which is additionally often disguised as an empiricist attitude, e.g. when he argues that the archetype is a pattern of behaviour, that it is innate etc. (see also: "I firmly believe .. that psyche is an ousia [essence]"; letter to Victor White 1949, Jung 1973, p. 540). Of course, I understand, that when Jung speaks of the "objective psyche", he tries to convey the idea that the inner world has its own reality and is not identical with ego or consciousness. Nevertheless, he gets entangled in epistemological inconsistencies and contradictions. However, many descriptions and definitions which Jung gives for the archetype have the shape of nomothetic statements, as if the archetype concept was something of a natural law or an empirical fact, as can be found in the natural sciences. This results in a strongly positivistic character of Jung's statements and concepts, even though Jung (and a considerable part of contemporary Jungians) sees himself in opposition to what is characterized as "positivistic science", respectively materialism - one more contradiction inherent in Jungian psychology that is often not reflected upon.

Reification and ontologization

Because of this attitude the concept of archetypes, together with that of the collective unconscious, has become ontologized and reified, so that parts of the Jungian community deal with it as if it were an external reality. As opposed to a theoretical concept, which attempts to explain and describe certain psychological phenomena. An example from the survey:

> "Despite their opacity, archetypes are empirically well-documented hypotheses whose empirical derivation is based on anthropology, art and cultural studies, sociological and psychological findings. Their character of reality is not concrete or even material but rather connected to the inner and at the same time collective soul, they are founded in "psychic fact" (Jung 1952, CW 11, §553). The interpersonal and transgenerational transfer takes place via each person's own and unavoidable access to the field of collective unconscious."

Another very recent example: in the IAAP newssheet of October 2021 (#18) a research project is presented, with the aim of investigating dreams dealing with the COVID pandemic; the following are the research questions:

> "What is happening within the collective psyche during this time of turmoil? This question remains at the heart of the study. As we sat with this question, the primary hypothesis that arose was this:
> *During times of historic turmoil, apocalyptic imagery may emerge within dreams as Jung himself analyzed during the outbreak of World War 1. Our focus remains on the collective expression of the unconscious, the objective psyche during such times."*

Here the idea of a collective psyche, respectively "the objective psyche", is ontologized, without any awareness of the hypothetical, if not to say speculative character of this concept - it is dealt with as a given. Such a use of theoretical concepts has to be regarded as unscientific – in such a research design it is unclear whether individual dreams are an expression of the hypothesized collective unconscious or not, how this shows in the data, whether this is then seen as proof of an objective psyche etc. At the same time, Jungians want their theory to be seen as a scientific theory and are surprised when the scientific community regards it as mystical or esoteric, which is no wonder when being confronted with such an understanding of science as presented in the above quote.

Warren Colman (2016) writes about his experience with Jungians from the classical school, while giving lectures in Zürich:

> "I was surprised to discover that my audience seemed relatively unconcerned by this question [where do symbols come from?]. They seemed more or less to take the. existence of archetypes for granted and to use them as heuristic and teleological devices without necessarily being concerned as to their origins one way or another.
> My impression was that, for those living and working in what is still the spiritual ancestral home of Jungian psychology, archetypes are not so much a hypothesis as a living reality that provides orientation and meaning for the practice of psychotherapy and living in general." (p. 2-3)

In referring to the feminine principle, the anima, Samuels takes a comparable viewpoint:

> "It is assumed that there is something eternal about femininity and, hence, about women; that women therefore display certain essential transcultural and historical characteristics; and that these can be described in psychological terms. … What is omitted is the ongoing role of the prevailing culture in the construction of the feminine, and the confusion develops between what is claimed to be eternal and what is currently observed to be the case. It is here that the dead weight of the heritage of archetypal theory is felt, but as the mirror image of Jung's problem. He assumed that there is something eternal about women and, hence, about femininity." (Samuels 1990, p. 296)

> "The problem with holistic mega-images (such as a world soul) is not that they are wrong. … But holistic thinking tends to be utopian, what Jung referred to as preaching about unity and wholeness. There is a certain compulsiveness that gets attached to holism that becomes an attempt to deny even the pain of rupture." (ibd. p. 298).

Samuels offers a contrasting viewpoint (see also the above discussion of personal vs. collective):

> "Is there such a thing as a feminine psychology? Men and women do have experiences that vary markedly. But it is a huge step from that to a claim that the way in which they actually function is sufficiently different psychologically for us to speak of two distinct psychologies. The evidence concerning this is muddled and hard to assess. For instance, the discovery that boys build towers and

> girls build enclosures when they are given bricks can be taken to show a similarity of functioning rather than difference (which is what is usually claimed). Both sexes are interested in their bodies and, possibly, in the differences between male and female bodies. Both sexes express that interest in the same way, symbolically, in play with bricks. Or, put in another form, both sexes approach the difference between the sexes in the same way. The difference is that we can see in gender role and gender identity can then be looked at as having arisen in the same manner. The psychological processes by which a man becomes an aggressive business executive and a woman a nurturing homemaker are the same, and we should not be deceived by the dissimilarity in the end product." (ibid. p. 299)

There is even what has been called "vulgar Jungianism - the mechanical and reductivist allegorical rewriting of a text according to the master code of the archetypes" (Barnaby & D'Acierno 1990, p. XXI) or what Andrew Samuels (1998) has called Jungian fundamentalism:

> "Jungian fundamentalism stresses Jung the man and his prophetic and even, it is sometimes claimed, divinely inspired words. But what gets particularly stressed is how Jung lived. Sometimes this is called 'the Jungian way'. I abhor the notion of there being 'a' or 'the' Jungian way, but Jungian fundamentalism trades off it. … It is a worldview that tends to ignore everything else that is going on in psychotherapy generally, or in the worlds of ideas, politics, the arts or religion." (p. 21-22)

Miller (1990) puts it ironically:

> "In Jungian psychological orthopraxy, we know that cats in men's dreams mean anima, that eggs in women's dreams mean fecundity, and so on. … It is symbolic: that is, it refers with semantic confidence to idolatrously believed in contents taken literally. Today Christian literalism and Jungian fundamentalism are symbolic. They have become a knowing." (p. 328)

Phenomenology

In strong contrast to such positions, Jung argues: "Psychology cannot establish any metaphysical truths, nor does it try to. It is concerned solely with the phenomenology of the psyche" (CW 18, para. 742). In fact, Jung took a phenomenological viewpoint by basing his idea of an autonomous process in the psyche on his observations of patients and their creative productions, as for example in the following quote:

> *"The chaotic assortment of images that at first confronted me reduced itself in the course of the work to certain well-defined themes and formal elements, which repeated themselves in identical or analogous form with the most varied individuals. I mention, as the most salient characteristics, chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third; the quaternity (square, cross); rotation (circle, sphere); and finally the centring process and a radial arrangement that usually followed some quaternary system. …The centring process is, in my experience, the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect." (CW 8, para. 401)*

Unfortunately, Jung never published this material nor is it accessible for further research. In the few instances when Jung dealt with empirical material intensively (e.g. in "Symbols of transformation" (CW 5), the Vision Seminars, "Dream symbols of the individuation process" (CW 15) no systematic method of interpretation is identifiable. In contrast, Jung is notorious in the humanities for the lack of a systematic interpretation method (Trevi 1992, Barnaby & D'Acierno 1990).

This is highly irritating, in so far as Jung uses the term phenomenology again and again, but without any reference to the science and methodology termed phenomenology, established by Edmund Husserl, who built on the works of Franz Brentano. This approach had developed a detailed methodology for the interpretation of psychic contents, which was accessible by the early 1920s. Again, Jung does not refer to or make use of such an elaborated methodology, he probably did not even know about this scientific approach so important for the discussion between psychology and philosophy during his lifetime. It is interesting that phenomenology discussed in detail and criticized what they called 'Psychologismus' (psychologism), a position which does not differentiate between the act of thinking or perception and the object which is perceived or thought about – a position which is very close, if not similar, to what Jung proposes throughout his works by stating that there are objects which only exist in the psyche, but have an existence of their own, what he calls the 'objective psyche'.

Jung's interpretation method

There is a continuous contradiction throughout his works: Jung's insistence on the scientific – even empirical - nature of analytical psychology, on the one side, and his actual work process - exegesis of texts, which is highly hermeneutic and influenced by the humanities. After leaving the university psychiatry in Zürich, Jung stopped conducting empirical research – which conforms with natural science - and continued researching texts from religious studies, mythology, alchemy etc. He did not realize at any point, that the psychology he was forming was applied humanities/cultural studies. As a medical doctor, he was not educated in this kind of research. Jung never attempted to acquire methods for this type of research, as for example systematic hermeneutic methods, theological exegesis or social science methodology (e.g. the methodology of constructing ideal types by Max Weber), even though all of these methods were already available to his time. In my opinion, this contradiction is still an unresolved problem in analytical psychology to this day. The majority of Jungian publications belongs to the field of hermeneutic interpretations or applications of methods taken from e.g., anthropology, whereas the claim is still that analytical psychology is biologically founded – at least the relation of the two "worlds" in the foundation of analytical psychology is still unclear. The lack of an adequate scientific system and methodology results in confusion in many of Jung's publications. Jung compiles the material and references in an extremely associative and unsystematic manner; there are no alternative interpretations considered, statements just are the way he sees them. This makes many of his books extremely hard to read, e.g., "Symbols of Transformation" (CW 5). Jung's way of arguing in "Symbols of Transformation" has therefore been criticized by many authors:

"In the midst of her fantasies Miss Miller imagines a city of dreams. This provokes Jung to a discourse about cities in old cultures and mythologies. Then he states that cities and women have a relation to the land; which makes him think about the movement of the sun over motherly waters; which again reminds him of Frobenius' concept of the nekyia; this stimulates Jung to think of Noah's journey, but he adds that traveling is an expression of a wish for rebirth; this starts a discussion about the book of revelations; etc." (Homans 1979, p. 66).

The author clearly shows that in this work Jung has produced a report of his own fantasies rather than a systematic interpretation of myths and symbols.

With reference to Jung's anthropological statements, Belmonte (1990) summarizes the critique concerning Jung's unwillingness to consider the insights and findings as well as the methodological premises of other disciplines:
"The exile of Jung to a place far beyond the borders of admissible argument in academic anthropology must be seen in the light of … Jung's own failure to invent and refine a terminology that would do justice to the novelty of his ideas. Nor did Jung ever clarify .. the evolutionary premises of his psychology. He was uneasy with the hydraulic and Newtonian machinery of Freud's project for a scientific psychology, and he knew that Darwin's survivalist materialism could not easily account for the creative and transcendent character of human mentality. But he was no special creationist. He uncritically accepted an instinctual and Lamarckian ground for the evolution of mind and embraced Haeckel's notion of ontogeny recapitulating phylogeny in the embryo as a fair description of the growth of the individual psyche. Like Konrad Lorenz and Edward Wilson, Jung was a sociobiological structuralist for whom the terms of mental life were at once transpersonal and preformed." (Belmonte 1990, p. 48)

Transcendentalism

In contrast to his empiricist self-understanding, Jung's argumentation is often openly transcendental. Apart from that, there is a constant confusion, especially due to what is called the Pauli-Jung-dialogue and their attempt to redefine the archetype by making use of concepts from quantum physics, of transcendental and scientific argumentations. This has been the object of massive critique from several different disciplines. Also, contemporary Jungian authors[4] clearly point out that Jung is permanently switching between the – contradicting – epistemological positions of realism and constructivism, between premodern thought in the line with Renaissance theories of cosmological unity on the one side, and the separation of esse et essentia (entity per se and appearance) in the Kantian tradition on the other.

Finally, there is the position of what could be called unknowing:
"the concept of the unconscious posits nothing, it designates only my unknowing" (in a letter to Max Frischknecht 1943; Jung 1973).

[4] "Obwohl Jung immer wieder betonte, ‚nur' den Standpunkt des Psychologen vertreten und keine metaphysischen Aussagen tätigen zu wollen , umfasst sein Menschenbild – und das zeichnet es tatsächlich aus – sämtliche Bereiche dieser klassischen Matrix . Dieses noch weiter zum Mythos und zu den Vorsokratikern zurückreichende Erbe ist natürlich äußerst konfliktbeladen und stößt in der modernen Wissenschaft, die allerdings selbst oft genug in schlechter ‚metaphysischer' Manier einen totalitären Anspruch vertritt, auf Ablehnung. Es beinhaltet allerdings etwas, um das es Jung hauptsächlich geht, etwas, mit dem auch der die Wissenschaft beherrschende Cartesianische Dualismus von Geist und Materie nach wie vor ringt, nämlich die Vorstellung einer Wesenseinheit von Kosmos, Mensch und Göttlichem , eine Sympathie aller Dinge (Renaissance) in einer Großen Kette des Seins. Diese Wesenseinheit impliziert einen erkenntnistheoretischen Realismus (Variante a), der mit dem in der Neuzeit auftauchenden Konstruktivismus (Variante b) in Widerspruch steht. Beide erkenntnistheoretischen Varianten lassen sich bei Jung belegen: Einmal stellt er Bezüge zum vormodernen Denken her, dann wiederum bezieht er sich auf die Kant'sche Trennung von Ding an sich und Erscheinung. Dieser implizite Gegensatz erschwert einen angemessenen Umgang mit Jungs Verhältnis zur Wissenschaft bis heute." (Gerhard Burda).

Jung's scientific method and way of 'doing science'

Problematic is that Jung sees reality primarily as the inner psychic reality – the relation of personal and objective is unclear. Therefore, he equates his own inner psychic experience with empirically proven facts. For Jung, his theory may be a successful attempt to embed his experiences (during his so-called confrontation with the unconscious), which are put down in the Red Book, into a coherent theoretical background of explanation. Surprisingly, a question that is almost never asked in analytical psychology - with a few exceptions (e.g., Saban 2019) – is whether these concepts of the individuation process are relevant for other people. Maybe these experiences of so-called archetypal figures are solely Jung's personal experience and do not apply for anyone else. Saban (2019) points out that Jung, like Freud, himself never had a formal training analysis. Ergo, it can be assumed that his way of introspection might be subject to faults. There is a tendency in Jung, as well as in his direct successors, to give much more emphasis to the inner world and its demands than to the outside reality - which could be a result of a neurotic development (Kirsch 2004). Connected with this problem is another attitude of Jung's to systematically choose an archetypal explanation instead of making use of biographical information as an explanation. An example is provided by Neher (1996) discussing Jung's famous dream of God's turd falling on the Basel Cathedral:

> "At this point, it should be noted that Jung was the son of a clergyman, with whom he had serious personal conflicts. Knowing that, does it not seem possible that this fantasy could be explained in terms of Jung's own life experiences? To me, it seems eminently possible. Thus the mystery, for me, is Jung's seeming inability or unwillingness to acknowledge this possibility. We will see the same theme, of downgrading the personal element in his own – and other people's – experience. … To summarize, it is clear that Jung's own experiences provided him with the initial motivation to develop a theory of unconscious content that arises not from our own life histories but from a nonpersonal source, which he eventually called the collective unconscious. But, after examining the experiences of his that he emphasized in his writings, we have seen that his claim that they cannot be explained in terms of his own life history is far from convincing." (p. 72-74)

Usually, in the development of a scientific theory, one would expect the following: Jung has a personal experience, based on this experience he develops a hypothesis about structures of the psyche and processes of psychological change, he then publishes this hypothesis and puts it up for discussion. This would be followed by a systematic collection of evidence, in the sense of proving and disproving the hypothesis, from relevant research and scientific findings. This, precisely, does not occur for Jung and his theories. Rather, for Jung, after 1916 his theory was interpreted as proven and had absolute validity. After that he solely presented material that would fit into his preconceived concept, and even this sporadically. This tradition, not to search systematically and open-mindedly for evidence speaking for or against the concepts, and disregarding relevant findings of neighbouring disciplines, begins with Jung and continues within analytical psychology until today (Jones 2014).

One example from Jung regarding ethnological research: Jung repeatedly mentions the existence of human universals, customs, ideas, or rituals that can be found in every culture, tribe or nation. But he never systematically studies the field of research in anthropology, which was already available to his time. In Volume 9 of the Collected Works, which contains his publications on the archetype concept, there are several hundred citations, mainly from

religious studies, but only a few ethnological researchers (Eliade, Mauss, Levy-Bruhl, Paul Radin, Baldwin Spencer, James Stevenson, Winthius), and even these are only mentioned in footnotes. Jung quotes Levy-Bruhl (1921) more than 60 times in his works, referring mainly to the concept of participation mystique; but Levy-Bruhl is an anthropologically orientated philosopher in the tradition of 19th century science, instead of an empirically oriented anthropologist. The most important researchers and theorists of his time – Marcel Mauss and Bronislaw Malinowski - Jung mentions only once. This means, he knew of their works, chose nevertheless not to include them. This is surprising, especially in the case of Malinowski (1924), because he conducted research about the occurrence of the Oedipus complex in different cultures of the world, which should have been of interest for Jung. Claude Levi-Strauss (1949) is not get mentioned, even though he created an alternative theory to Jung's archetype theory, and began to publish these ideas in the 1940s. And this is the case still today. I have never experienced Jungian publications referring to ethnographic data samples like the Ethnographic Atlas (Murdock 1967), the Standard Ethnographic Sample (Naroll & Sipes 1973) or the Standard Cross Cultural Sample (Murdock & White 1969) (see chapter Anthropology for details); there even is a scientific journal called Cross-Cultural Research. All of these could provide empirically based answers to the question whether there are cultural similarities, and to what extent these exist. Jung only claims that certain traditions and patterns are universal without providing evidence in detail. In fact, overviews of empirical research in ethnology show that there are only very few universals, and these do not support Jung's idea of archetypes (Brown 1990). It is not similarity that characterizes the ideas and practices of peoples, but diversity and variation (see chapter anthropology for more details).
The same sort of critique has been put forward from experts in literary criticism. Jung attempted to apply his method to literary works, e.g., James Joyce's Ulysses (CW 15, para 163ff.)

> "This paper, however, can hardly be called an analysis of the novel, as Jung frankly says that the book bores and irritates him, the only beauty of it being that it perfectly expresses the futility and squalor of modern life." (van Muers 1990, p. 239)

Another example concerns of what Jung calls **"Autochthonous revival":** For to argue that archetypes have "**never been in consciousness, and therefore have never been individually acquired"** (CW 9/I, para 88), Jung also had to rule out for all his cases that there had been any prior contact to the image or idea by the person producing the archetypal image; this also implies to rule out cryptomnesia respectively all kinds of subliminal/unconscious acquisition of certain motives, images, patterns or stories. This is, of course, hard to accomplish, if not impossible.
"In particular, demonstrating – on a case-by-case basis – that a proposed archetype could not have derived from personal or common cultural experience, and therefore must be genetic in origin, is exceedingly difficult, if not impossible" (Neher 1996, p.86). But Jung does not seem concerned with this problem, nor does he conduct any attempts to provide evidence for his assumption. We even know today that the first case by which Jung presented his archetype concept, the Miss Miller in volume 5 of the Collected Works, was not a pseudonym, but a well-known performing artist whose specialty was dressing up as a member of an exotic ethnic group and reciting the respective poetry, so that she was well acquainted with everything Jung

connected with the collective unconscious - so there is no speaking of an autochthonous revival here and the whole case seems to be flawed (Samuels 1998, p. 18).
In sum, Jung does not make the effort of systematically inspecting empirical material for testing his theories. He selects contents that prove his arguments and ignores the need for providing support for his ideas. This approach is continued by his followers. One example: Erich Neumann's (1968) famous work "Ursprungsgeschichte des Bewusstseins" (The history and origins of consciousness), in which he expands Jung's theory about the parallels between mythology and the development of consciousness. Norbert Bischof (1996), a professor of psychology at the University of Zürich, was one of the few academic psychologists who recognized Jung's psychology and attempted to test it empirically. He demonstrated that Neumann selectively used mythologies in his publication which would verify his theory, and systematically excluded other material. Bischof included the material that had been excluded by Neumann in his analysis and reached a very different conclusion about the relationship of mythology and psychological development. I have never seen a reference to this critique by Bischof in Jungian publications on Neumann, which – from my point of view - is another striking example for the continuation of an attitude of theoretical isolation in analytical psychology up to the present day.

A dynamic systems theory point of view

Jung makes the mistake of believing that if there are similar patterns found interindividually in beliefs and practices of different cultures, there must be a template inside each person. By this he means information inscribed in a biological or genetical way, which then produces the observed similarities. This way of arguing is not necessary: Seen from the perspective of dynamic systems theory, it can generally be said that the formation of systematic patterns is a feature of nature itself, especially of living systems. The ocean produces systematic patterns of waves, weather phenomena follow systematic patterns, individuals and groups develop routines to solve problems that come up repeatedly, families develop systematic patterns of rules and habits etc. From the viewpoint of general systems theory, it is a natural characteristic of physical as well as organic systems that they produce systematic structures by way of self-similar patterns. The view, which is inherent in Jung, that there must be a template somewhere stored in the person - in the genes, brain structure or biological makeup - which is then expressed in repetitive structures, is a common fallacy. It is not necessary to assume an inherent or innate pre-configuration to be able to explain the development of similar structures in the lives of humans, in the structures of society etc.

> "It is my contention that what Jung termed archetype is actually a biosocial manifestation of a widespread natural phenomenon, originally identified by Claude Shannon as a self-healing code. Had Jung formulated his theory of the archetypal synapse connecting mind, myth, and culture now, he would have undoubtedly adopted a perspective based on cybernetic as opposed to linear notions of causality in that position and a symbolic process with in its total semiotic context and dominant media environment. Once this step is taken, a great deal of the crass reductionism that moores Jung's psychology melts away and his most valuable intuitions become available for reconsideration." (Belmonte 1990, p. 47)

George Hogenson proposed that the archetype could be understood as an "iterative moment in the self-organization of the symbolic world" (Hogenson, 2005, p. 279). McDowell stressed that the archetype was a pre-existing principle of organization of the personality (McDowell, 2001).

In the 1920s the Berlin School of Gestalt Psychology (Metzger 1954) identified a quality of the cognitive structure as the capacity of creating a good "gestalt". This means a stable configuration of perceptions, which are therefore ubiquitous. This Gestalt principle was also empirically supported (Stadler & Kruse 1990). For example, subjects in an experiment were asked to recap and complete patterns of dots repeatedly until a stable configuration was reached. In large series and great numbers of subjects the resulting configurations were similar. The factor that produced the similarity was called convergence. It is the same principle that makes the bodies of fish and whales so similar even though the two species differ biologically. The similarities develop because the qualities are the best adaptation to the same conditions.

Saunders and Skar (2001) have adapted this theory for analytical psychology. They argue, that when Jung speaks of the archetype as form without content, he really means a process, not a form, which produces similar patterns. Accordingly, psychological archetypes are the product of processes of self-organisation by the brain. Saunders and Skar suggested that the archetype was an emergent structure which derived from the self-organizing properties of the brain (Saunders and Skar, 2001). Dynamic Systems Theory in its application to cognitive psychology claims that, once the brain has developed a pattern of perception and interpretation, subsequent information is processed on the basis of these existing patterns. This explains why different information is processed into similar psychological concepts. This is a quality of self-organising systems. It also provides an alternative explanation for archetypes and would also solve the problem of the 'archetype–as-such':

> "When we employ a dynamical systems view of development, we no longer need the archetype-as-such to explain the formation of complexes. In fact we could do without it altogether and still have the same basic psychological system that Jung proposed." (Skar 2004, p. 247)

To a certain extent the systemic idea of self-organization can already be found in Jung, when he speaks of the psyche being a self-regulating entity. It also becomes clear that this idea is in opposition to the essentialism being found throughout Jung's works, as pointed out above. Again, contradictions inherent to Jung's theories around archetypes can be identified here.

As later highlighted – in the chapter on anthropology – there is an overlap to the viewpoint of the functionalist school of anthropology. Specifically, that similarities between peoples of the world are a result of the fact that human communities have a set of shared problems which must be solved (e.g., to avoid incestuous relationships producing offspring with a high risk of genetic defects). Since these problems are interculturally similar, the discovered solutions are comparable - such a systemic perspective can explain the observation of interindividual and intercultural similarities.

Associated with this viewpoint is the insight that some forms or patterns in the environment of humans or, simply speaking, in the world, have a certain objective meaning, and to grasp and incorporate that meaning is simply unavoidable during life. As an example, I would present the circle resp. the globe/sphere. There is a line of argumentation, in Jung as well as

in some authors from the survey, that these forms can only be grasped because there is an innate preformed pattern or template, as in the following quote from the survey:

> "Archetypal images are composed primarily of archetypal elements—ordering principles that direct the formation of archetypal images. These are inherited along biological pathways. The genome directs their organization via the well-known genetic biological processes that direct all inherited characteristics. Such processes either involve no learning at all, or if they do involve any learning, it is self-organizing learning that has nothing to do with culture. That is, anyone raised anywhere on earth would teach themselves such elements with no need for specific instruction or imitation/observation (i.e., we are not born knowing the sun is round, but we need no instruction on this to obtain this knowledge)."

This line of thought, especially in connection with the example of the sun, is irritating, in so far as during human life there is no way of avoiding recognizing there are perfect circles/globes to be observed in nature, e.g., the sun, the moon, the wave pattern if a stone is dropped into water, blossoms and fruits etc. (there are many more examples provided by Neher 1996, p. 79). The classical Jungian argumentation assumes that we as humans were not able to recognize this if we did not have an inborn template. Apart from the fact that this is a misconception about how human perception develops (bottom-up instead of top-down; see chapter Biology), it is also highly implausible that nature would use the limited space for information in the genome to prepare the development of a perception which can be acquired just by using input from the environment.

> "Further, when it comes to humanlike archetypes, such as the leader of the wise old man, it is even easier to imagine that they would be part and parcel of the experience of any culture in any historical, prehistoric, period." (Neher 1996, p. 79)

It is different if Jung (and some of his followers) would argue that the circle is a biologically preformatted symbol of perfection, completeness, wholeness etc. One could go against this view by pointing to the fact that the circle is, mathematically or geometrically speaking, a perfect form in itself, and can also be defined as such mathematically. It is no wonder that humans have used the circle for symbolizing perfection, completeness, wholeness etc. (see also the discussion of Goodwyn's arguments in the chapter "Biology").

A history of criticism

> "The truly gigantic and fundamental nature of Jung's labors, however, could never blind us to our own capacity to work out in more detail, or to apply in new spheres, those concepts which can and need to be subjected to scrutiny, constructive criticism, and elaboration." (Fordham 1955, p. 4)[5]

It is interesting to find out that many of the problems identified in classical archetype theory in the above account have been pointed out quite early in the development of analytical psychology, as for example:

> "The archetypal image is postulated to be the end result of the interaction between the innate archetype per se and the environment. … We saw that the archetypal theory does not attempt to

[5] Consequently, Michael Fordham was the first direct follower of Jung's who attempted to reformulate classical archetype theory by adding his concept of the deintegration reintegration process (for details see Roesler 2021).

> specify precisely how these two factors interrelate to produce the archetypal image. Thus, in the absence of any archetypal laws specifying how these two factors interact to produce the archetypal images, the question arises as to how the innateness of the archetype per se is to be established. For if we are not in fact able to separate these two factors through some type of isolation experiment, it might well seem that the claim that the archetypes are innate, rather than acquired as a result of experiences individual development, would be on very weak ground. Moreover, if we cannot substantiate the innate nature of the archetype per se, then the theory as a whole will lack a credible basis. … Jung argues, then, that the archetypal images are due two innate factors primarily on the basis of paradigm cases in which it can be reasonably a certain that the persons involved have had no previous exposure to the sort of motifs that appear in the dreams of visions (e.g. the Solar Phallus case; C.R.). … Naturally in most cases of the alleged archetypal manifestations, this degree of control will not be possible. For when individuals report that they cannot trace a specific image to something they have acquired through learning, they must be either lying or mistaken. In the latter's case the possibility of cryptomnesia must always be kept in mind." (Shelburne 1988, p. 66-7)

As the results of the survey demonstrated, there is still no consensus about the definition of the core concept of analytical psychology, the archetypes. Additionally, the debate about this concept still frequently refers to outdated theories and concepts from psychology and elsewhere (Knox 2001). There is still a widespread neglect of the epistemological and other problems inherent in these conceptualizations. In the history of criticism there is general agreement that Jung's works are full of contradictions, and much has already been written about it:

> "Jung repeatedly insisted that he did not have a theoretical system of his own. In so far as he claimed that his ideas were not theoretical abstractions but founded on his own direct clinical experience, he did not feel compelled to present them as a neat system with their own logical coherence, which would enable his readers to access them easily. This close relationship between Jung's theory and practice could account for the fact that his writings are accepted as lucid and indeed inspirational by some and as incomprehensible by others." (Papadopoulos 1992, p. XIV)

As this author points out, Jung on the one hand relied heavily upon his own inner experience, by formulating his psychological ideas and concepts. On the other hand, he was desperately trying to avoid being seen as a philosopher, as he wanted to be regarded a scientist. Consequently, many of his ideas and concepts are presented by him as nomothetic statements, as empirically grounded insights, if not truths (e.g. the anima is said to be an objective fact). There is no doubt that Jung was innovative in his way of introducing introspection into forming a psychological theory. However, his repeated claims that his findings should be regarded as hard empirical facts frequently lead to aporia. Jung tends to shift between these positions - and the main problem is that he was not aware of this contradiction:

> "On the one hand he admired immensely Plato's depth of insights and scope of vision and made extensive references to the platonic opus in his own writing; however, on the other hand he was concerned not to be branded as an idealist philosopher (or any kind of philosopher for that matter) when he was eagerly attempting to establish himself as an empirical psychologist with in a strictly scientific paradigm. Jung's own references to this issue are varied. At times he accepted archetypes and forms as synonymous and analogous and at other times he emphasized his claim that Plato's forms were metaphysical and transcendental whereas his own archetypes were empirical facts. His position is epitomized in a letter in 1943 when he wrote ' . . If I posited the archetypes . . I would not be a scientist but a Platonist'. This claim demonstrates that he was not in a position to investigate this issue objectively; one cannot underestimate Jung's fear of being branded a philosopher when he was desperate in wishing to be recognized as a scientist." (Papadopoulos 1992, p. 4)

My impression is that the tendency of being unaware of the inherent tensions and contradictions in analytical psychology is present to this day. Many Jungian authors, when confronted with this problem, argue that it was a conscious and deliberate strategy by Jung and indeed ingenious, that his paradoxical statements should be seen as a new form of conducting psychology.
A good example for this attitude is Claire Douglas' (1997) article on the historical context of analytical psychology in the Cambridge Companion to Jung (Young-Eisendrath & Dawson 1997), where she states:

> "The strains of positivism and romanticism warred in Jung's education and training but also produced a dialectical synthesis in which Jung could use the most advanced methods of reason and scientific accuracy to establish the reality of the irrational (another interesting ontologization; CR). It was Jung's romantic genius, and number two character, that allowed him to understand that humans, himself included, could be at one and the same time Western, modern, secular, civilized and sane - but also primitive, archaic, mythical and mad." (p.20)

From my point of view, this is a glorification of Jung's inability to clarify basic epistemological and scientific standpoints. I wish to point out that there is confusion on Jung's side: it is not a systematic strategy in Jung's writing, but a failure to see the limitations of his own thinking. That the eternal glorification of Jung, by arguing that he was deliberately acting –and indeed ingeniously - paradoxical must be regarded as a defensive strategy in the Jungian community. I would argue that this attitude in Jung, as well as in the community, is at the root of the ongoing and severe theoretical problems present in today's analytical psychology, e.g., the lack of a consensual definition of archetypes, a resistance against theoretical developments and insights in relevant disciplines, and against a testing of the theory in the sense of research.

Papadopoulos (1992) in his compilation of criticism of Jung's theory summarizes several critiques, which mainly refer to Jung's use of philosophers and especially his distinction of reality and fantasy:

> "Prof. de Voogd reaches the conclusion that Jung understood and used the Kantian epistemology in an incorrect way and mainly to back his own claim for being scientific and thus respectable. she claims that Jung's Kantianism was therefore both self-contradictory and self-defeating. She asks how it was possible for Jung to rely on Kant so completely and for so long when his colleagues in other disciplines had no difficulty recognizing Kant's limitations. The answer perhaps lies in the firmness of distinction which Kant drew between the transcendent metaphysics of his predecessors and the new Kantian epistemology he introduced which relied on causality and objectivity. This neat alienation between what is scientific and what is not scientific can easily be deduced from Kant and indeed it was used by many authors subsequently in order to establish such clear-cut criteria. It is these criteria that Jung also wished to rely upon. However, on closer examination, de Voogd demonstrates that Jung himself moved further along the Kantian dichotomy when he introduced the reality of fantasy. Quoting from Jung that the psyche creates reality every day. The only expression I can use for this activity is fantasy, she argues that such an ontology requires a descriptive model that puts metaphor before concept. This is so because Jung not only recognizes fantasy but even puts it ahead of fact. Therefore, such fantasies lead us to the root metaphors at work in the given context, the metaphors in terms of which we fashion our notions and concepts." (Papadopoulos 1995, p. 5-6)

> "Barbara Eckmann contends not only that Jung was misguided in dismissing Hegel, but moreover that there is a clear Hegelianism in Jung of which he was not even himself aware. She develops her argument by showing the similarities between the Hegelian 'extra-human subjectivity' and the Jungian psychoid archetype. In so far as both refer to the objectivity of the subjective they also offer a solution

> to the Cartesian dualism between the material and psychic worlds. Wolfgang Giegerich took issue with the way in which Barbara Eckman asserted Jung's Hegelianism by pointing out that the theories of the psychoid archetypes as well as of synchronicity are theories of an ontic, factual reality. .. However, as he points out, this kind of knowledge refers to that which is absolved (freed) from the difference between the absolute and the empirical, the infinite and the finite. His argument is that Jung was unable to grasp either this distinction or its implications. However, paradoxically, both his psychology as well as his theory and practice of psychotherapy incorporate this principle which, regrettably and yet understandably, he himself was unable to apply to his own logic. This state of affairs .. left Jung attached to a pre-Kantian mode of thinking in so far as he insisted on the empiricism and objectivity of his work. This very logic of Jung's, anchored in the ontic level, prevented him not only from appreciating his affinity with Hegel but also from healing the dissociation between his own psychology and logic." (p.6-7)

The critical points above are brought together astutely in Trevi's (1992) critique of Jung:

> "The discomfort I am talking about can assume various forms: that of an uneasiness with some unsolved contradictions in analytical psychology itself; that of a refusal of the constant turning into ontology of the origin of the metaphorical language of analytical psychology; that of a refusal of the typical ahistorical suspension typical of analytical psychology that never established any fruitful exchange with those problems of the philosophical, anthropological, and methodological thought which during the same years had appeared and established themselves; that of the suspicion caused by the divorce that analytical psychology continuously maintains towards those empirical observations coming from other fields of psychological research, or that, on the contrary, of the repudiation of it's all too easy syncretistic way of uncritically accepting everything, thus destroying the essential character of analytical psychology; that of the doubt about the distance between its theoretical hypothesis and their practical applications; that of a diffidence about a field which has never consistently faced a radical, or even pitiless, rethinking of its foundations; that of a nausea for the careless, superficial and uncritical use of the comparative method in the de-metaphorization of the images of fantasy or of dreams without any care for historical or cultural differentiation: that of the suspicion for all too easy a recourse to the therapeutic practice, or to a recourse to experiences either purely emotional, or of a dangerously parapsychological nature and thus banally suggestive; the discomfort, finally, of a repugnancy for a linguistic and hence theoretical carelessness in most of the scientific production which goes under the name of analytical psychology." (Trevi 1992, p. 356)

According to Trevi, there are two different tendencies present in Jung. The first is to build a coherent and systematic view of psychic life. The second is to move away from this systematic plot which gives space to an essentially experiential content, breaking up the theoretical frame.

> "In particular in Jung's text it is easy to find the affirmation of psychology as a natural science and the negation of it as a science for the constitutive aporia of psychology itself: the inescapable presence of the observer in the object that is observed, and so the inevitable reciprocal shift of psychology as a science into a psychology as an original attitude of the observer. .. The same jump of Jung from the phenomenology of subjective psychic life to a claimed objective psyche, which should be unmovable and atemporal under the headlong historical variations of subjectivity and culture, constitutes itself as an attempt to draw from a somehow unattackable and coherent system." (p. 359)

> "Besides this strenuously critical methodological position, sentences of the so-called objective science (i.e. naturalistic) of the psyche appear in the rhapsodic disorder which is characteristic of Jung. It does not matter that Jung, who also tries to unmask the naturalistic nature of psychological research from which he comes, continuously falls in the circle of the same naturalism." (p. 363).

He points out that Jung desperately strived for seeking a superior point of view above all these contradictions. Finally, Jung failed to succeed in reaching that point and thus his psychology remains full of contradictions and aporia. He concludes, while at the same time aiming to

constitute his psychology as a science, with the nomothetic ideal of the natural sciences, he gives up categorizing his psychology to be a science, reducing it to the experience of the understanding of the psychic process. In the end, Jung's psychology takes on the character of a symbolic or metaphorical language, a hermeneutic endeavour. I will return to this viewpoint in my final chapter on the core of archetype theory.
Other authors (e.g., Tresan 1996) have already accused Jung of an inappropriate reductionism in his attempts to find a biological foundation for archetypes. Stadler (1997) has worked out in detail how biographical influences were systematically disregarded in Jung's theorizing.

In line with many authors mentioned above, I assume that behind Jung's decade-long effort to force his archetype concept into a biological conception, is the need to defend his theory against suspicions of not being scientific. Jung (as well as Freud) received his academical training as a medical doctor, a natural scientist. He made it very clear that he always saw himself as such and psychology as a natural science, for example as stated in a seminar at the University of Basel 1939: "Psychologie ist sozusagen die jüngste der **Naturwissenschaften** und steht erst am Anfang ihrer Entwicklung." (Psychology is, so to say, the youngest of the **natural sciences** and is only at its beginning; transl. CR). This attitude is also evident in Jung's attempt to align his theory of psychic energy with the laws of thermodynamics, e.g., when referring to the law of entropy, which is basic for Jung's theory of the balance of psychic energy - ironically these are now considered, as being refuted, which astoundingly to my knowledge has not been received in analytical psychology as it would have led to a change in the very concept of energetics. There are many other cases in which Jung made use of concepts from physics for his own psychology, e.g., he attempts to explain the exchange of energy between consciousness and the unconscious as a system of communicating tubes. It can be summarized that Jung attempted to bestow upon his psychology the shape of a natural science. Firstly, because this was the way he was trained to observe consequential to his academic background, and secondly because he (unconsciously) needed this as a defensive strategy against not being seen as a real scientist.

> *"From these references it should be clear enough that my idea of the archetype – literally a pre-existent form – does not stand alone but is something that is recognized and named in other fields of knowledge." (CW 9/1, para. 90)*

There is a curious tension to his practical scientific approach, which is namely hermeneutic, which carries on throughout his entire work. Habermas (1968) accused Freudian psychoanalysis as 'scientistic self-misunderstanding'. The same applies, in my opinion, to analytical psychology. Indeed, all psychology is concerned with meaning and as such with structures of meaning. Jung had clearly indicated this, with an emphasis on the centrality of 'meaning'. This cannot be thought of as natural science, but rather leads to the necessity of an interpretative mind.
Even more important, in my view, is what Jung did throughout most of his life: making psychological interpretations of texts, dreams and fantasies. His practical approach to psychology was hermeneutical. So, here we find Jung in line with a long tradition of hermeneutics, interpretation and cultural theory, even though his own self-understanding was that of a natural scientist. Whereas in practice his psychology deals with culture, meaning

and interpretation, and therefore belongs to the humanities – something of an "applied humanity". The German psychoanalyst Alfred Lorenzer (1973) attempted to reinterpret psychoanalysis on the basis of social sciences and accused Freud and his psychoanalysis of "Geschichts- und Gesellschaftsblindheit" - a blindness towards historical and societal conditions and viewpoints, which, from my viewpoint, also applies to Jung. A comparison with the historical development in Freudian psychoanalysis is informative here: as far as I can see in the second half of the 20th century, the Freudian tradition successfully rid itself of Freud's outdated conception of drives, which has a lot of similarities with Jung's biologistic conception of archetype theory. In my opinion such a development is yet to take place within analytical psychology.

Criticism from outside of analytical psychology

In fields of scholarship and research Jung's ideas are well-known, e.g. in anthropology, comparative mythology, comparative religion etc. Hence, there has also been criticism on Jung's ideas about archetypes from scholars of these fields, who are not analytical psychologists or psychoanalysts. Andrew Neher (1996), for example, has conducted a thorough and detailed investigation of archetype theory, from an epistemological viewpoint as well as from the viewpoint of relevant disciplines. He also criticizes explicitly Jung's way of doing science and theorizing which makes it impossible to clarify whether earlier positions were changed: "The reason is that he rarely repudiated his earlier positions, so that, in most cases, it is difficult to tell whether a later position is intended to replace, or merely supplement, an earlier one" (p. 64). He summarizes the results of his investigation as follows: "from this analysis, it appears that Jung's theoretical assumption – of universal, transpersonal archetypes – led him astray. Thus he prematurely dismissed the role of personal experience on the one hand, and universal cultural experience on the other, in his examples. This allowed him, having rejected competing theories, to offer his transpersonal theory as the only viable explanation for the similarities in expressions of the unconscious that he cited. As we have seen, however, it is difficult, if not impossible, to eliminate these alternative explanations. Thus Jung's efforts to verify his transpersonal theory must be seen as provocative perhaps but hardly convincing" (p.80).

Referring to the similarities found in mythologies from all over the world the anthropologist Michael Witzel argues:

> "More importantly, if the Jungian explanation by archetypes were correct, we would expect that individual archetypes would indeed turn up in all parts of the globe. This, however, is debatable: not all of the supposed archetypes do indeed turn up worldwide. While we may grant that the human psyche has a universal biological substrate in the cortex that may produce similar images worldwide, it is, however, unclear how far this actually underlies local manifestations in myth, art, ritual, or certain stereotypes of behaviour and how far such similarities can be explained by a monolateral metatheory such as that of Jung. At any rate, archetypes do not result directly in elaborate structural details and certainly not in long sequences of such tales, the storyline." (Witzel 2012, p. 13)

Even more basic is the critique formulated by Lévi-Strauss (1970) in his structural approach to anthropology. Interestingly, both Jung and Lévi-Strauss attempted to find answers to the same

question, namely how the apparent similarities in mythologies of different ethnicities can be explained – a fact which has seemingly not been dealt with in analytical psychology, except by Gras (1981). Lévi-Strauss points to a specific mistake made by Jung throughout his works, in that he assumes a biologically founded link between a myth or mythological image and its meaning.

> " [...] Some of the more recent interpretations of mythological thought originated from the same kind of misconception under which those early linguists were labouring. Let us consider, for instance, Jung's idea that a given mythological pattern, the so-called archetype, possesses a certain meaning. This is comparable to the long-supported error that a sound may possess a certain affinity with a meaning." (Levi-Strauss 1970, p. 204)

The German scholar and theoretician of psychotherapy integration, Hilarion Petzold (2014), who in his extensive works dealt explicitly with Jung and his archetype theory, takes a critical viewpoint on Jung's argumentation:

> "Jung assumed a collective unconscious of the human race, but it has to be assumed that these are rather cultural area determined, interiorised collectivities in the sense of Moscovici's social psychological conception of collective mental representations, that is conscious, pre-conscious and unconscious mentalizations, which can serve as an alternative for the explanation of myth building structural elements, what Jung called archetypes." (p. 439-40, transl. C.R.). Petzold is clear about the fact that these can only be transmitted by socialization and culturalization from one generation to another. He then points out what Jung conceptualizes as archetypal similarities, can indeed have rather different connotations depending on different environments and cultural contexts. So, for example, water in the Sahara Desert has a very different connotation from what it receives in England as a nation of seafarers. Another example are the symbolic connotations of the sun, which, as he points out, in the cool North is female whereas in the hot South it is male. On the other hand, where there are similarities, for example the moon being considered as female, it is not necessary to explain them only by reference to universal archetypes: "this may be because of the rough correspondences of the phases of the moon to the menstrual cycle of women … It is not difficult to see that this common symbolism, acquired through experience and not genetically, could account for the perception." (Neher 1996, p. 75)

Referring to the works on mythology, in which Jung cooperated with Kerenyi, he argues, similarly to Witzel, that the assumed similarities in mythological motifs cannot be found in detailed research. In general, he accuses Jung of neglecting social, environmental, and political contexts of mythologies, religious beliefs and social practices.

Jung dealing with criticism - A lesson from the history of the Zürich Psychological Club

How did Jung deal with criticism that was directed against his theory? The Zürich Psychological Club, which became Jung's main forum very early on to introduce his theories, can serve as an example. At the beginning real debate between the members would take place, which later developed into a sole forum for Jung's point of view. This development was caused, to a large extent, by Jung's inability to accept and handle criticism. This can even be seen in the arrangement of the room: wooden chairs for the audience, in the first row a big leather armchair for Jung with two more leather armchairs, one on each side, for Emma and Toni Wolff. When Jung disliked a speaker, he talked loudly to Toni Wolff during that lecture. When Hans Trüb (chairman at the time) asked him to respect the lecturers, he lashed out in rage and avoided the Club for more than two years. Then Toni Wolff became chairwoman and made sure that only admirers and enthusiastic supporters of Jung remained in the forum, who

formed a resonance space for him (interestingly enough, he derogatorily called them the “11 000 virgins”) (Bair 2003, Healy 2017).
In the beginning there were few members who could defy Jung theoretically, which he tried to shout down with the strength of his voice, for example, Alphonse Maeder and Hans Schmid. Hans Schmid, beyond all criticism a lifelong friend of Jung’s, criticized him explicitly because of his way of dealing with relationships. He observed that Jung would always be sarcastic when the subject of romantic relationships was brought up and reproached him for lacking in sensitivity concerning the needs and feelings of others (Healy 2017, p. 178). An interesting comment about Jung’s style of debating and his position within the Club by Schmid:
"In a tower at the Obersee you ... have adopted the heritage of Nietzsche, a father to no one, a friend to no one, completely self-sufficient, fulfilled by yourself. Across the way, here and there, live a few other male and female introverts, each in his own tower, loving humanity in those “farthest away” thus protecting themselves from the devilish love of their “neighbours”.” (Bair 2003, p. 283). There is even more to this story: Schmid once invited the philosopher Martin Buber to speak at the club, and Jung attempted to keep the other members from participating in the lecture (Bair 2003). This, of course, has to do with the opposing viewpoints Jung and Buber had on relationships, Jung emphasizing development as coming out of the individual, whereas Buber is well known for his philosophy of dialogue, emphasizing ‘Das Ich wird am Du’ (The ego develops in the dialogue with Thou). Jung openly disliked Buber, as can be seen in his “Answer to Martin Buber” (CW 18/II; the topic of Jung’s attitude to relationships will be expanded in the last chapter).
The same thing happened at the Eranos conferences. In the beginning there were a few participants who countered Jung’s views, e.g., the biologist Adolf Portmann, who criticized the biological foundation of Jung’s archetype theory - instead of accepting the criticism, Jung talked badly about Portmann behind his back (Shamdasani 2003). The organizer of the conference then stopped inviting such critics, so that Jung and his psychology were not questioned anymore (Healy 2017).
Bair (2003) puts it like this: Jung welcomed the new as long as it came from him. He was not afraid of changing or specifying his position or admitting that he had been wrong but only if he was the one to state it first. He would allow a dialogue and divergence but only if he had the last word. There were people who dared to question his authority, have creative additions or new insight into his method. He simply broke off relations with those people. The other group of people was composed of the ones who were willing to sit at his feet, listen to his word, and carry it on exactly the way he said it. Many of these later became authors of Jungian literature and are being most quoted in the history of analytical psychology and concerning the biography of Jung. The only exception is Wolfgang Pauli, from whom he accepted corrections simply because he was not educated in quantum physics.
From this the following picture of Jung is present: it seems as if his theory was, for him, the truth at a very early point in time. He was not interested in verifying his theories scientifically or putting them up for discussion. During his career, he continuously isolated himself and put up a hard shell, that from a certain point on nobody, and no facts, could penetrate. What he himself may have called introversion seems to be a sort of theoretical isolation, which I think still can be seen in analytical psychology today.
As an example, I will again refer to Norbert Bischof. I tried to research whether there was ever an exchange of any kind between Norbert Bischof, professor of psychology at the University of Zürch, and the Zürich Jung-Institute, which were so close to each other. I could only discover that Bischof held a lecture at the Jung-Institute once. However, this event did not have any

lasting impact on the Jungian literature or theory. Another example, already mentioned above, is the work of Hilarion Petzold, who is the founder of Integrative Therapy and an expert of analytical literature. He refers to Jung in many of his publications, while at the same time criticizing him. Nowhere in the Jungian literature can a reference be found to this critique by Petzold.

Is archetype theory a belief system?

> "If Jung's theory of archetypes and the collective unconscious is as flawed as it seems, we are faced with the question raised previously: why does it hold so much appeal – for Jung, for Jungian's, and for many others since Jung's time?" (Neher 1996, p.82/3)

I would like to coin the following hypothesis: for Jung, his theory was not merely a theory, but a strong belief based on his personal inner experience. It could not only explain individual psychological development but became something of a "Welterklärungstheorie" (world explanation). This could explain the similarities and differences of peoples and cultures, even the development of mankind. Of course, for many developers of scientific theories, ideas are supported by strong beliefs, but in Jung this is heightened to an extreme. Although he points out the fact of the 'personal equation', I wish to mention that in his own case he was not able to consider this and to distance himself from his own ideas. He was unable to take a neutral stance, what is called scientific scepticism in academia, and to discuss it openly - in the sense of being open for criticism and for corrections. It became a creed, and consequently when presenting his ideas to the public, it turned into somewhat of a preaching. A reason being that Jung's ideas and concepts were so closely linked with his own experience. For him this was a kind of truth, thus he did not concern himself with finding evidence for his theories and was unwilling to accept criticism.
My next hypothesis is that in his time and still today, followers are drawn to his ideas because there is a certain need to have a belief in such a 'holistic' creed. This has already been observed by others:

> "Much of the responsibility for the uncritical acceptance of Jung's theory, however, must be borne by his disciples, who have tended to view his ideas as gospel rather than as tentative hypotheses that require ongoing testing and development. … Whatever the reasons, the unfortunate consequence is that the theory of archetypes continues to flourish, and even make new inroads, unchecked by reason and thoughtful scrutiny." (Neher 1996, p. 63)

Neher argues, by quoting Jung's argument that the idea of archetypes as a healing effect as one realizes that individual pain and bitterness unites all humanity: "granted, this perspective may sometimes be using, but the danger is it may also encourage people to discount the personal implications – of the dream, for example – when these need to be recognized to resolve a personal issue" (p. 83). I think, this dangerous misinterpretation of the idea of archetypes has manifested many times in the history of analytical psychology (see also the discussion in the final chapter).
There is no doubt that much has been published on said problems in Jungian literature, and many of the points I am making here have already been discussed (see for example the extensive debates in The Journal of Analytical Psychology). Nevertheless, my impression is that outside academic circles, there is still a strong tendency to idealize Jung, cling to very

classical positions in AP and to a conservative reading of his works in the Jungian community. It seems that the differentiated state-of-the-art in critical publications has not had a strong reach into the Jungian community. Rather worse is the impression: there seems to be an attitude of superiority, which can be found in Jung as well as in many of his followers today, in the sense that their model of how the psyche develops and how psychotherapy works is ultimate, as if they were in possession of the truth about the psyche. This has led to an objectification and ontologising of concepts which originally were just a personal experience of Jung. This attitude of superiority has also led to a tendency of isolation against insights, findings and ideas from other disciplines.

Conclusion: Not one, but several theories

It was pointed out that there are not only different epistemological approaches to be found in Jung‘s archetype theory, but there are also different lines of thought which run through his theorizing around archetypes. Consequentially, not only Jung‘s writings, but also the general state in analytical psychology concerning archetype theory, is characterized by confusion and a lack of a consensual definition. As a consequence, if some author attempts to provide proof for the existence of archetypes, it is not clear what is meant by this term and which of the many definitions is applied in the respective context (see, for example, the discussion of Goodwyn’s (2020, 2019) papers in the chapter Biology).

Resulting from the analysis of different statements and the definitions of Jung as well as the community, and as an attempt to present a solution to this problematic situation, which puts into question the core of analytical psychology, I would like to propose the idea that in Jung –and in the debate around archetype theory in analytical psychology –we find not one coherent theory, but several distinct theories. These must be differentiated and separated from each other. The following figure provides an overview of four distinct theories that can be found concerning archetypes. They should be seen as an attempt to organise different lines of thought into distinct categories, creating a theoretical order:

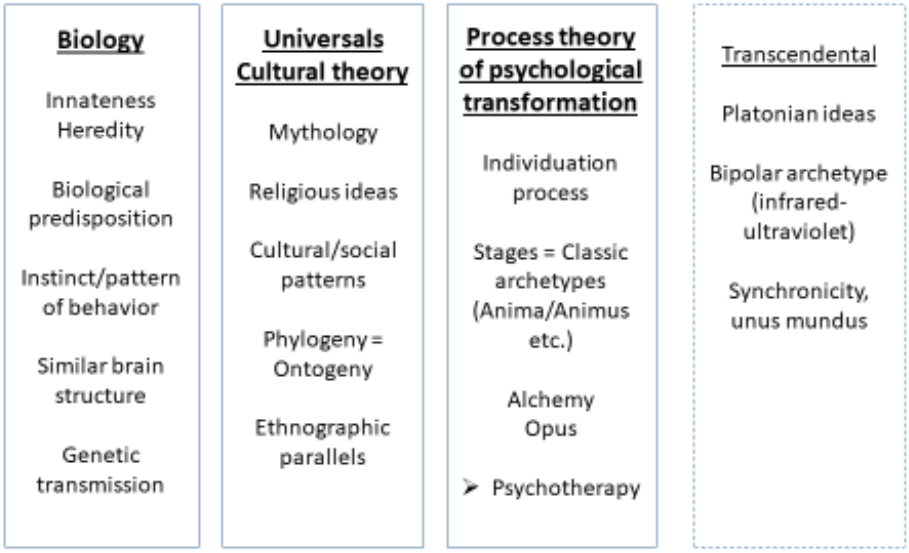

Fig. 1: Four different theories inherent to archetype theory

Theory 1: A theory of biologically pre-formatted (genetically transmitted) mental capacities

According to this theory, humans are not a blank slate at birth. Due to their biological makeup, their genome and the similarity of their brain structure etc., certain pre-formed features are innate. These can take the shape of instinctual behaviours/patterns of behaviour; preformatted categories that direct and form perception, and patterns which govern the formation of images, ideas etc. These features or patterns are thought to be transmitted from one generation to the other by way of genetic code. They are considered to have the character of archaic behaviour and can appear primarily in regressive states of consciousness, especially in psychopathology, e.g., in psychoses. This is a biological theory, embedded in the natural sciences, and has strong connections to the medical disciplines, human genetics, neurosciences and ethology/behavioural biology. Concepts from evolutionary theory are included, whereby humans are viewed as the product of a long line of evolutionary development, this being the reason why humans demonstrate archaic behaviour that can also be linked to our animal ancestors. Another associated idea is that there exists a ‚natural' way of living for humans; a way of life appropriate according to the background of our evolutionary history and development, in other words a form of living which is close to our nature respectively, fulfilling the needs implanted in our biological make-up. This theory contains the idea that we can learn about this way of human life by looking back into the history of mankind.

Theory 2: An anthropological theory of human universals

This theory belongs to the field of anthropology, and deals with the assumption of human universals that can be found in peoples from all over the world and from different epochs. The focus lies on similarities that are said to be found cross-culturally in social rules and patterns, cultural habits and symbols/images, religious beliefs and ideas, mythological motifs and narratives etc. Information is drawn from ethnological and archaeological findings from indigenous or prehistoric human societies and cultures. This theory entails an idea characterized as the homology of phylogeny and ontogeny, meaning that the psychological development of the individual recapitulates the evolutionary and cultural development of mankind. Included in this idea is the assumption of a scale of different levels, concerning developmental maturity from archaic/primitive to developed/civilized, which can accordingly be applied to individual as well as cultural and societal development.

Theory 3: A process theory of psychological transformation (in psychotherapy)

This theory is concerned with describing transformational processes, which can be observed in psychotherapy, as well as in other forms of transformational phases in human life. Such transformational processes can also be observed in the sense of decomposition or regression, and in certain cases and phases of psychopathology, namely in the course of a psychotic development which produces a succession of certain typical ideas and images. The general idea of this theory is a force within the human organism/psyche, which is behind this process of psychological transformation and has the aim of greater integration of the personality respectively wholeness. This is synonymous with psychological healing and sanity. It includes the idea that the integration of the totality of a person, often called wholeness, is preformatted in the psyche/unconscious. This also includes the uniqueness in the sense of the individuality of a person. The second idea of this theory is the assumption that there is a general form or shape of the transformational process towards integration and healing, which is applicable to all human beings, and can, if explicated, be used as a map for the psychotherapeutic process. The general assumption exists in archetype theory, that models for this universal map of transformational processes in the psyche can be found in symbolic form in certain cultural and religious traditions, namely alchemy, mystic traditions in different religions (e.g., Gnosis, Yoga, the Buddhist path etc.), religious scriptures (e.g., the gospel, the Tibetan book of the dead, etc.), as well as mythologies and fairy tales. One of Jung‘s major aims in forming his psychology was to create an universal map of the transformational process, so as to be applied in the practice of psychotherapy. The archetypes, which Jung provides a detailed description of, and which I have called the ‚classical archetypes‘ (anima/animus, the shadow, the wise old man, the great mother, the self, the trickster, the journey of the hero etc.), were conceptualized as being stages of this process. This demonstrates that the archetype concept is important for Jung‘s psychology, especially because it is the explanatory concept behind the conceptualization of the process. It is assumed that the process and its stages are preformatted in the psyche of every individual, throughout the world, during every epoch. Training in Jungian institutes is concerned mainly

with creating a deep understanding of this transformational process, and research and publication activity in the Jungian world contributes to establishing a map of this process. I would go as far as stating, this theory is the core of analytical psychology. In the following I will therefore refer to this theory as the core theory. This idea is an unique contribution of Jung‘s to the development of psychotherapy theory. As far as I understand he was the first to present this idea, which in turn had a strong impact on the formation of other psychotherapy schools, namely the humanistic approaches and the transpersonal approaches. It should be noted, however, that there are different versions of the transformational process. This ranges from an idea of a centering process to a highly detailed map with a large number of stages, as for example described in the journey of the hero.

These first three theories could be subsumed under so-called ‚normal science ‘, meaning the theoretical concepts, statements and assumptions are subject of specialized disciplines in the field of sciences, e.g., biology, anthropology etc. These disciplines can provide footing for the above-mentioned concepts, or better yet, the theories summarized above can be tested against contemporary insights and empirical evidence provided by these disciplines. The confrontation with contemporary insight and state-of-the-art disciplines will be conducted in the following chapters, for each of the above-mentioned part theories separately. As I have pointed out above in the section on criticism, in theories around the archetype concept in analytical psychology, nomothetic statements have frequently been made, which can be tested in this sense.
The fourth and last theory inherent in the archetype concept is, in contrast to the first three, not part of the field of normal science, it can therefore not be tested in the above-mentioned sense and will not be dealt with further in this report.

Theory 4: A transcendental theory of a unity reality

This theory attempts to transcend the usual limits of normal science, the so-called deterministic model, and bridge the gap between mind and matter, by making use of ideas and concepts from quantum physics. These ideas were mainly developed in the Pauli-Jung-dialogue, a conversation which Jung conducted over decades with the physicist and Nobel laureate Wolfgang Pauli (Gieser 2005). A product of this conversation is the concept of synchronicity and the idea of unus mundus; a potential reality, in which mind and matter are still united. This is a conceptualization comparable to ideas of quantum physics. Even before this dialogue, Jung introduced philosophical and transcendental concepts into his archetype theory, namely Platonian ideas and Kantian categories; metaphysical concepts in the broadest sense. These ideas depart clearly from normal sciences, are highly speculative and present one of the main reasons why Jung has been accused of esoteric thinking and mysticism. It is a quasi-religious concept, yes, even connected with pre-modern forms of thinking and speculation (e.g., medieval cosmologies), although it attempts to connect these speculative ideas with concepts from modern physics. It can be regarded as another one of Jung’s attempts to give the archetype concept a foundation in the natural sciences. Because of their speculative character these ideas cannot be grounded in empirical observations.

Nevertheless, they did have a strong impact on the development of concepts in parapsychology and contemporary consciousness studies, where they have been developed further (for detailed accounts and overviews of these developments see Roesler 2014, 2018; Atmanspacher & Fuchs 2014; Atmanspacher, Römer & Walach 2002; Walach, Schmidt & Jonas 2011). These ideas also had a strong influence on the development of transpersonal psychologies, psychotherapies, and spiritually integrated therapies (Roesler & Reefschläger 2022). In this regard these speculation resulted in being very fruitful for different academic fields.

Due to the above analyses of different definitions to be found in analytical psychology for the archetype, and based on the history of criticism, it can be summarized that there is a high degree of confusion in archetype theory and no consensus how it should be defined. The confusion is positioned on different levels: in epistemological foundations, between concepts taken from natural sciences vs. humanities etc., in openly contradictory conceptualizations of theories, as well as of specific archetypes. My conclusion from this analysis is following: this lack of consensus and clarity in the debate around archetypes is a product of Jung‘s (and others‘) attempt to combine the four above-mentioned theories at all costs. I would even go as far as stating that Jung was fixated on the idea of weaving these different lines of thought and scientific traditions together into one coherent concept – **which has failed, because it is fundamentally impossible**. This attempt has resulted in a big mess of contradictions, aporia, highly speculative ideas in the disguise of nomothetic statements, problematic assumptions about the nature of humans etc. Enormous damage to the reputation of analytical psychology within the scientific field was caused. In some sense justly, as there is no way of healing this theoretical disaster, while maintaining Jung‘s original concept. The only fit solution I see is to take apart the different theoretical elements, as described above, to review them for compliance with the contemporary, state-of-the-art knowledge and with the relevant disciplines to see what remains. This will be carried out in the following chapters. Previous practices, often found in Jungian publications, drew out a singular theoretical concept or empirical finding from a scientific theory or discipline and used it as ‚evidence‘ that Jung was initially correct. again, this attitude has been criticized before:

> “A Jungian writer knows a lot about some obscure tribe, or one particular fairytale, or one particular mythologem, or subatomic physics, and appears, in the Jungian world, to be a big authority on it. But when you actually go out and find academics who are into fairytales, or that particular tribe, or that particular myth, or mythology in general, or physics, what they have to say about the level of the sort of knowledge and sophistication shown by the Jungian is rather damning.” (Samuels 1998, p. 29)

In contrast to this the current review will apply following methodology: the different lines of thought and theories will be confronted with mainstream knowledge as they developed in the respective disciplines. If necessary, historical developments will be traced for explaining earlier misconceptions, as well as how they were overcome. In the course of this confrontation of archetype theory with contemporary knowledge, a description of the historical predecessors and influential ideas, theories and traditions, which impacted Jung‘s theory, will also follow. At the end of each chapter a conclusion will be drawn regarding the validity of archetype theory.

5 Biology, genetics and inheritance

> *"Although psychology rightly claims autonomy in its own special field of research, it must recognize a far-reaching correspondence between its facts and the data of biology." (CW 8, p. 232)*

In this chapter the first of the four theories outlined above will be discussed, which is the biological line of argumentation, and will be examined with contemporary insights and the state-of-the-art in the respective disciplines. These are behavioural biology, human genetics, evolutionary theory, evolutionary psychology, and biological anthropology in general.

Innateness

Jung was obviously convinced that archetypes are genetically imprinted and transmitted from one generation to the next via biological pathways. Jon Mills (2018) gives an overview where Jung refers to this biological argumentation in his works. In this context Jung argues that the archetype is identical with, or at least similar to, instincts, and explicitly equalizes it with the term pattern of behaviour from behavioural biology. He also believes that typical life situations and experiences which have been endlessly repeated in the history of mankind, have been imprinted into the biological outfit of humans – Jung does not use the term explicitly, but what he tries to convey here in contemporary terms means that these experiences have changed the genome. Archetypes in this conceptualization are thus genetically imprinted (therefore: arche-*types*), innate, and the same or like instincts and patterns of behaviour.

This view has been repeated again and again in the history of analytical psychology. McCully (1971) argues that the concept archetype is closely related to the ethologists' innate fixed pattern, as does Gordon in the following quote:

"It seems to me valid to postulate that there is a close link between the concept of the archetypal image and the ethologists innate release mechanism (IRM)." (Gordon 1985, p. 131)

Until recently and even today there is still a considerable number of Jungian's who closely follow Jung's biological conception of archetypes; a good example is Humbert (1988), who gives a very detailed account of this line of argumentation in Jung and with the respective quotes:

> "How can one simultaneously hold two apparently compatible use: that representations are not innate and that original images are biologically inscribed? Jung hesitated to commit himself until he was helped along by an analogy taken from the development of animal behavior. … Psychology can therefore find inspiration in the way biology frames the problem concerning the innateness or the transmission of certain ideas. It is not representations that are transmitted but the structures from which representations arise. This view allowed Jung to define the archetypes as congenital structures. Even if this idea of congenital structure is more satisfactory to Jung, the question of its nature still needs to be asked. However, around 1938 Jung came across an idea that seemed useful to him in defining congenital structures, the idea of pattern of behavior. He borrowed this concept from biology and continued to use it well into his later works, even though by then his thought had evolved beyond that idea. … The picture of the archetype is genetically transmitted, while the circumstances surrounding the archetype flesh it out into the particular image." (Humbert, 1988, p. 100)

So, the psyche, Humbert argues, consists of unconscious predispositions that make possible an organized human existence. Archetypes, which have slowly evolved through the course of history, are a-priori conditions to actual experience.
Such ideas are not a matter of the past, comparable argumentations can be found even in contemporary publications by Jungians - see for example the quotes in the chapter Definitions - and it was also found to be a widespread pattern of argumentation in the survey conducted for this study. The general idea that archetypes and instincts are closely related and that instincts are a considerable factor in human psychology is transmitted even in very recent publications which draw on contemporary neuroscientific findings (Alcaro et al. 2017; this will be discussed in detail later, see below "Affective Neuroscience").
But there are also critical voices:
"But the archetypal imagery and the archetypal motifs that we encounter in our clinical practice is so much more intricate and complex than can be explained by an attribute to the IRM (innate release mechanism)." (Gordon 1985, p. 131)

From the survey:

- "This means, quite bluntly that one can likely speak about proto-archetypes in other species which have different necessary formal elements and one might here speak of "instincts". I talk of "proto-archetypes" because the reflexive/recursive nature of human consciousness is such a central formal feature that the geometry involved in human archetypes is ineradicably conditioned by it and raises the issue fundamentally above the level of instinct."
- "Proto-archetypes in the form of instincts are a matter of evolution and genetics. These do play a significant role in humans but as such are not really a matter for psychology proper. Archetypes in the human sense are inextricably bound up with the reflexive/recursive nature of consciousness and this latter takes the matter necessarily out of the realm of evolutionary theory."
- "This means that proto-archetypes (instincts) can always be said to be "transmitted" and universal but human archetypes proper are not necessarily transmissible or universal. They are rather merely possible/latent and "repeated" under certain conditions in specific individuals and depend on a development of consciousness, in particular the reflexive/recursive elements."

Proponents of the biological approach in archetype theory are Anthony Stevens (2003) and John Haule (2011). For many years the most important protagonist of the biological approach to archetypes was Anthony Stevens (1983, 2003). In his conceptualization archetypes are genetically encoded and transmitted and this is the explanation for their universality. Stevens argues that there is a continuum of behaviours, ranging from those which are environmentally stable and those which are environmentally labile. Stevens claims that Jung conceived of the archetypal plea of the phylogenetic psyche as determining and coordinating the basic patterns of human life in a way which was characteristic for all members of the species. He proceeds to argue that unconscious images can also be part of the blueprint on which behavioural systems are based, and concludes that from a biological standpoint, the archetype is an ancient, genetically determined releaser or inhibitor which directly influences our behaviour. He exemplifies this argument with focus on attachment theory and attachment behaviour which he sees as a striking example of biologically-based, genetically determined behaviour patterns (see below for a detailed discussion of the findings of attachment research and contemporary viewpoints in attachment theory).

Another proponent of the biological inheritance paradigm is John R. Haule (2004, 2011). He argues that there is a considerable synthesis between modern genetics, the Darwinian paradigm in general and Jung's ideas about the archetype. "Jung dreamt the dream of the biological and human sciences at the time before a synthesis of these disciplines was possible" (Haule 2004, p. 150) and stresses the point that "Jung never gave up on this Darwinian intuition" (p.151).

> "No account of the human condition can be taken seriously if it ignores the 5 million years of natural selection that have made us what we are … These were to be archetypal realities, passed on through DNA, and expressed in distinctive neuronal tracts in the brain. They would include customs and laws regarding property, incest, marriage, kinship, and social status; myths and legends; beliefs about the supernatural; gambling, adultery, homicide, schizophrenia, and the therapies to deal with them. Jung said pretty much the same things 80 years ago." (p. 154)

Haule then argues with what he calls the "language archetype". Even though it may be agreed that there is an innate capacity for language acquisition (see below), it is questionable whether the term archetype, in the sense how Jung used it, can be applied to this capacity. It is obvious that the archetypes which Jung described: the shadow, anima/animus, the self, the wise old man, the great mother, the divine child etc. can not be paralleled with the language acquisition capacity, these are totally different categories.

The course of the debate in analytical psychology

Interestingly, the state of the debate in analytical psychology has moved far beyond these reductionistic and biologistic conceptualizations, and for quite a long time now. The limitations of the biological argumentation were already put forth by George Hogenson in his debate with Anthony Stevens at the IAAP International Congress in 2001 (Stevens, Hogenson & Ramos 2003; for an overview see Hogenson 2019). It could be said that after this debate, together with a publication by Hogenson (2001; see also 2003) from the same year, it was quite clear that a position such as that of Stevens, which could be characterized as a naïve innatism and biological reductionism, could no longer be sustained:

> "[...] one would have to say that the archetypes of the collective unconscious do not exist, in the sense that they cannot be said to be some place. They are not *in* the genome. .. one must look at the complete context within which we attribute their existence to a set of interacting phenomena." (Hogenson 2003, p. 19)

Already around that time there was a huge amount of evidence, from biology, genetics, developmental psychology etc., which speaks clearly against the biological assumption. First of all, there is consensus in behavioural biology that humans do not have instincts (see below for a detailed discussion). There are some basic reflexes in new-born infants, but these are quickly lost and replaced by mental patterns stemming from experience. Understanding the human genome led to the insight that symbolic information cannot be genetically encoded. Also, even if there are genetically preformed mental patterns, they are subject to strong influence from the environment via epigenetic processes. The key concept of contemporary theories of human development therefore is gene-environment-interaction (for an overview see Roesler, 2012; Merchant, 2019; see below for a detailed discussion). A detailed analysis of

these contemporary insights and their implications for archetype theory was already presented by Jean Knox (2003). Later she again stressed the following point:

> "The fact that animals demonstrate patterns of automatic motor action, … is mistakenly used by Jungians as the basis for arguing archetypes are also an inherited pattern of mental representation, imagery and thought, apparently part of our genetic make-up. … Automatic behaviour patterns can be under significant genetic influence … mental imagery and thought are the result of much more complex interactions between brain, mind and environment, in which genetic 'hard-wiring' plays virtually no part." (Knox 2009, p. 311)

There is a strong consensus of experts dealing with archetype theory in the last two decades, that Jung's assumption of a biological/genetical transmission of archetypes can no longer be supported; this consensus was reflected in a number of papers published in the last 20 years, many of them in the Journal of Analytical Psychology and the International Journal of Jungian Studies.

In contrast to this clarification in the expert literature, the state of the debate seems to have only little or even no impact on the teaching of archetype theory in Jungian training institutes. I am part of the faculty in a number of Jungian training institutes, and it seems to me that training candidates are often taught about archetypes as if nothing had happened since Jung's days. The same applies to many Jungian publications, which still apply an undifferentiated biological approach to archetype theory almost identical with that of Jung's late years.

Already in 2003 Jean Knox pointed to this problem, stating that often extremely outdated concepts are used in Jungian psychology, especially when it comes to archetypes. Such an ignorance of contemporary insights and debates, of course, creates a massive problem when analytical psychology attempts to find a place in academic psychology today. Merchant (2009) even suggested that the use of the term archetype itself should be questioned:

> "If contemporary neuroscience does ultimately reveal that the archetype-as-such is not innate as originally conceived, then the question arises – is the word 'archetype' itself too suffused with innatism and preformationism meanings to prevent confusion? . . . (For) if we think, act and clinically practise as if archetypes are *a priori*, innate psychic. structures which determine psychological life when this is not the case, then we could become irrelevant to the broader psychotherapeutic community." (Merchant 2009, p. 355)

Consequently, authors such as Hogenson, Knox and Merchant developed what today is called the emergentist position, which attempts to integrate the contemporary state-of-the-art in genetics, developmental psychology and the neurosciences with archetype theory, which will be discussed in detail below. However, as a first step, the question whether there are instincts/patterns of behaviour in humans, will be discussed.

Archetypes are instincts/patterns of behaviour?

Primarily, it has to be said that the parallel Jung made between archetypes in humans and instincts in animals is not supported. Norbert Bischoff, professor of psychology at Zurich University and ethologist trained in the school of Konrad Lorenz, published a very differentiated and sophisticated study of Jung's theory in the light of modern developmental psychology and ethology (Bischoff 1997). He points out very clearly that there can be no parallel between instinctive patterns in animals (e.g., how birds build their nest) on the one

hand, and complex symbolic structures like mythological stories or rituals in human beings on the other. In ethology/behavioural biology (Bischof 2020) an instinct/pattern of behaviour is a technical term and as such is clearly defined having three components:

1. a trigger mechanism, which means that there is a specific stimulus in the environment which can be detected by the individual, which then
2. activates a drive, which leads to
3. an inherited coordinated action pattern

There is no such thing in human beings (Bischof 2020). Human infants have no inherited action programs but only certain reflexes, which in some cases can only be shown in the first days of life and then quickly vanish. The innervation of the extremities in human beings is highly unspecific and only develops into specific action patterns by instruction and/or trial and error. In contrast to these findings, Jung sees himself and all humans in general as objects to archetypal powers with no possibility to resist the unfolding of those powers, as they are thought to have instinctual power[6]. In the concept of the individuation process this is even highlighted as the sense of life - to fulfill the potential which is (biologically) rooted in the person. There is the idea of a certain inevitability in the unfolding of archetypal powers, which has implications for Jung's view on human relationships (see chapter "The core theory").

Bischoff (1997) examined in detail the analogy Archetype - Inborn Release Mechanism (IRM) using the 'child schema' from ethology (Eibl-Eibesfeldt 1987) and the archetype of the (divine) child (Jung CW 9/1), to test whether parallels can be drawn between ethology and psychology. The so-called 'child-schema' consists of the idea that for most animal species the head of the young animals is bigger in relation to the body and the face is compacter, therefore meaning a squat nose or that the eyes, nose, and mouth are closer together etc. This form presents a trigger for the adult individual that inhibits aggression and activates caregiving behaviour amongst other reactions. Bischoff contrasts Jung's explanations on the child archetype, in particular the pictorial representations in which the child appears. His conclusion: 'These two patterns of interpretation are poles apart…For the ethological concept the central point of interest is evidently the physiognomic appearance of the child form. There are very definite formal characteristics which must fit like a key in a lock of the perceptual filter which should trigger the nurturing behaviour' (Bischoff 1997, p. 121f). Such a key-in-the-lock-principle does not exist in humans, and the same applies to the nurturing behaviour which should be triggered: Concerning nurturing behaviour, a meta-analysis of cross-cultural studies showed that there is no universal pattern of nurturing behaviours in human beings (Ahnert 2010).
For the pictorial representations, which Jung researched as manifestations of the child archetype, the child carried a symbolic meaning which is transmitted through the spatial symbolism: 'The child is a carrier of meaning who is not at all interested in how he looks, but rather only that he is in the middle of the image and that he is enclosed on all sides by a protective, uterine shell. It is easy to imagine that a diamond in a chest, a pearl in a mussel, a precious elixir in a retort evokes similar images and therefore these pictures are also named

[6] "If something happens in life which equals an archetype, the archetype is activated with a certain compulsiveness, which, like an instinctual reaction, prevails against reason and human volition […]" (CW 9/1: para. 99)

by Jung as possible alternatives' (Bischof 1997, p. 122). The problem is, therefore, that Jung places two entities in parallel which lie on categorically different levels. On the one hand is an instinctive pattern of behaviour, almost on the level of a reflex, and on the other hand is a more or less complex symbolic structure of meaning. Precisely this issue runs throughout Jung's whole biological argument on archetypes. Bird behaviour patterns cannot be equated with complex, meaningful patterns such as rituals or mythological stories in humans.
On the other hand, according to Bischof, it seems quite plausible that in contrast to instincts there are actually certain categories of perception and logic which are biologically predetermined in human beings. These categories organize perception and behaviour in certain directions. Bischof (2020) gives a number of examples: the distinction of figure and background, truth and appearance, main and minor matter/Substantia et Accidentia, causality, and the concept of identity in the sense that something remains the same over time and situations. Infants, for example, can identify whether a moving object is a living organism or not, at the age of only a few months (see below for a detailed discussion of innate mental capacities).
Unfortunately, this differentiated work by Bischoff never received attention in analytical psychology, as has happened to a number of important scientific findings.

Instincts, drives and the human condition

The question whether humans have instincts, or drives, and if so, to what extent they influence human behaviour, has haunted anthropology for centuries. As to create more depth to this question, in the context of this study interviews were conducted with experts from the relevant fields. These experts were confronted with the question whether there are instincts (or drives) in humans, what the consequences are, and whether Jung's biological conception of archetypes is supported by contemporary sciences in general.

Interview with Prof. Dr. Tebartz van Elst (Freiburg/Germany), neuropsychiatrist

(has extensive publications on human drives)

Regarding the question of whether there are instincts in humans, Tebartz van Elst points to something like instincts in the sense of a stereotyped behaviour that is universal, e.g., maternal aggression in the sense that there is a universal pattern of parents defending their offspring against threats. The same applies to territorial behaviour as well as aesthetics in the sense of a sense for beauty. But Tebartz does not clearly differentiate between drive and instinct, for example he sees a universal drive for life, in the sense of surviving as well as bringing more life into the world, e.g., offspring. Universal is defined here as being an absolute point of orientation, e.g. the inhibition to kill. Same applies to the definition of archetype: something like a pattern that exists in all humans, without necessarily being biologically rooted. It could be summarized that there are motivations in humans that are in a certain sense similar to instincts, also called drives, but they apply to a very basic existential level of being, in the sense of patterns for survival. But a pattern like the myth of the hero is not biological at all and cannot be genetically coded. So, in this view, archetypes have to be

differentiated from this instinct/drive level of human existence and are more on the level of cultural achievements.
Young birds have a flight instinct when detecting the shape of a bird of prey. The interesting point here is that in the inborn pattern an aspect of semantics is included. So the question is, how does semantics/meaning get into the genes/biological pattern.
There is also an idea of emergent processes, meaning that biological changes create a new situation which then produces new experiences and as a consequence new motivation, e.g. in midlife the sexual power gets weaker, therefore the mind expands to transcendence. Also all human beings have to deal with the awareness of death, which produces universal answers.
Psychotherapy means to become free of limitations in the sense of being enslaved by stereotyped patterns.
In philosophical anthropology this state of affairs has been characterized with the term "Hiatus" (Arnold Gehlen), which means that there is a gap between the human drives or impetus on the one side and its aims on the other; human drive is unspecific, therefore the gap enables humans to inhibit behaviour and to place reflection and culturally transmitted aims in the gap. This Hiatus also leads to the fact that human motivations tend to differentiate, expand and destabilize, and therefore need cultural regulation. Examples for such secondary motivations are the need for admiration or competitiveness, as well as the awareness of one's own mortality and, based on this, transcendent motivations.

Interview with Prof. Dr. Joachim Bauer, neuroscientist, International Psychoanalytic University Berlin:
The primal images or archetypes can neither be explained by the genetical code nor by epigenetic processes. We acquire them mostly in the pre-verbal stage of development via unconscious processes, in interaction with caregivers (for details of this theory see below).

The ‚primacy of images'

Much of the same as was said above also applies to Jung's use of the term image and his idea that images are primary. Instead, as ethology clearly states, human infants are born without any preformed images. They do not even have the neural capacities for constructing visual representations, and store them in the brain before the age of at least six months. A proponent of a modified biological approach to archetypes, such as Goodwyn (2020a), clearly states: "We do not inherit images, although culturally-specific, learned content can be utilized in the construction of archetypal images" (p. 924). Nevertheless, even in current publications Jungian authors continue to argue with the primacy of images in total neglect of the respective scientific knowledge. A current example: in a recent German textbook on the work with symbols in Jungian psychology (Dorst, 2015), Jung's assumption, that images are primary in the psyche, is repeated, without any reference to current brain research, which clearly shows that until the age of 4-6 months there are no image representations possible because of the immaturity of the neural system; the first psychic representations are embodiments, not images. The latter point was taken up by Angela Connolly:

> "The problem is evident in that Jung conceived of the image as something purely internal, springing entirely from the unconscious. … The result of this outlook was that Jung failed to adequately take into consideration the role of the body and the wider material environment in the creation of meaningful images." (Connolly 2018, p. 73)

Mark Solms (2016) points to the fact that, in the limbic system or other innate brain structures, no images are stored. Images, as in dreams for example, are secondary products involving preconscious or even conscious processes. This means that there are no primary images; in other words, there are no images that are totally unconscious and no images that have never been conscious before that were not conceived based on experience.
Colman (2016) argues very much in a similar way:

> "I want to argue that any kind of formal structure is secondary to the process whereby archetypal images are created through the activity of symbolic imagination. That is, symbolic imagination is not shaped by pre-existing psychic forms so much as being the means by which it is possible to conceive of such forms in the first place. Ontologically, the image is primary and the abstract forms were present for the levels of symbolic thought being constituted by rather than being constitutive of symbolic imagination." (Colman 2016, page 16)

The ‚Similarity of brain structure' argument

Another line of argument to be found in Jung as well as in recent publications in analytical psychology (and in the survey as well) is to assume that all humans share the same brain structure. The proponents of a biological foundation of archetypes argue that the similarities in social patterns, religious ideas etc., which are thought to be archetypal, come about through this general similarity of the brain structure in all human beings (e.g, Stevens 2003, Haule 2011).
For a long time this viewpoint has been shared by brain researchers, who investigated large samples and identified regions of the brain which were thought to be the locations of certain processes or capacities. In the last years, however, there has been a shift in brain research based on more detailed investigations of interindividual differences in neurologic performance as well as functional brain structure. A group of researchers from University College London (Foulkes & Blakemore 2018) took the considerable effort to investigate individual differences in the maturation of the brain in adolescents and young adults and found considerable differences in the time frame of the maturation of different parts of the brain. They argued that the formation of the functional structure of the brain is not only genetically preformatted, but is also subject to influences from the environment and the social network of family and friends. These findings were supported by results of researchers from Columbia University in New York (Noble et al. 2015), who could demonstrate the differences being closely correlated with the socioeconomic status of the parents: the higher the status, the larger was the cortical surface in many brain regions at the same age. These differences also resulted in higher competencies in speech, reading, social cognition and other fields of intellectual performance. These findings have received further support from other recent studies of neuroscientific researchers (Seghier & Price, 2018). So generally speaking, those parts of the brain which are evolutionary later developments, are to a much greater extent subject to environmental influences, e.g., in the sense of education, than was previously assumed. This is, again, a striking example for how misleading research can be when it starts from pre-conceptualized theories and convictions of preformationism, in this case, the unquestioned prejudice that human brains are similar by nature.

In the same line, Verhoeven (2011) argues that there is no need, as cognitive theorists in anthropology, to assume a biological foundation of religious representations, because these are only categories good to think with and are therefore persistent components of human minds.

> "Due to the constraints of our mental activities, such representations have many features in common, such as the structure of rituals (e.g. the tripartite structure of rites of passage) and the belief in supernatural beings. … Other cognitive researchers … have stressed that external elements, the environment and objects including literacy, were and are of crucial importance in our cognitive development. There is a dialectic, then, between our brains and our surroundings. The neurophysiologist Diamond, for instance, investigated the impact of the environment on the anatomy of the brain, based on experimental studies with rats. She distinguished so-called enriched and impoverished environments. Enriched environments consisted of sufficiently large and diversified surroundings with a number of species; in impoverished environments a single animal was enclosed in a monotonous surrounding. Diamond found that enriched or impoverished environments respectively had positive and negative effects on brain growth throughout the life of rats. Very probably this holds for humans as well." (p. 121)

Genetics

Jung argues that archetypes can be located in the genetic make-up of human beings. This very general assumption has been repeated again and again in analytical psychology, in the past as well as in recent publications, as well as in the survey. Therefore, in the following the state-of-the-art in genetics, with a special focus on human genetics, will be summarized. Very generally speaking, instincts/patterns of behaviour in animals, e.g., the pattern of how the weaver bird builds its nest, is certainly genetically imprinted and transmitted from one generation to the other, which means that no learning, instruction or experience is necessary for the birds to perform this pattern. A complex mythological concept, i.e., cognitive content, simply cannot be genetically coded. First, genes encode only the construction of certain proteins which in turn entails certain biological processes – not symbolic information. Second, the space to store such complex information in the genome simply does not exist – the existing genes (be it 24,000 or even 100,000) would never be sufficient to achieve the coding of that which is conceptualised as archetypes in Jung's theory. We need to keep in mind that the biological/genetic hypothesis of archetypes has to explain how such complex symbolic structures as for example the myth of the hero (which is a narrative structure), the anima with all her attributes etc. come about in the human mind.

Human geneticists are very clear in their assertion that genes cannot serve as carriers of complex symbolic information. Only subcortical structures arise through genetic control in early human development. Symbolic information, however, needs networks in the neocortex that only form during development, well beyond the first year of life (Knox 2003). This means that archetypes, in the sense of complex symbolic structures, e.g., the myth of the hero, fundamentally cannot be genetically coded and the existing innate mental structures are so rudimental, or only orientated around sensory perception, that they are miles away from these complex symbolic patterns.

There have already been all kinds of attempts by Jung and others after him to rescue the biologic and genetic concept of archetypes. Jung was also to some extent conscious of the

problem that symbolic information cannot be genetically coded. He made a distinction, therefore, from 1947 between the archetype-as-such, which is only a core and empty of content, and the concrete archetypal image, where there is indeed culturally different content. Unfortunately, Jung was extremely vague here with what the archetype-as-such is and where it can be located (for example 'transmitted by Mendelian particles'). We must also ask the question here of whether structures of the archetype-as-such can even be conceived of as empty of content or if each mental structure is always defined by its content.

Jung's assertion of a genetically invested complex archetype is based on the fragmented knowledge of genetics in his time. The actual way in which genes function, as we know today, is clearly distinct from the notion which Jung assumes as a basis and which also appears in many current arguments. This outdated idea has been called the blueprint model (Knox 2003) and is synonymous with genetic determinism: The genetic code provides a blueprint, in that the whole construction of a human being and also their brain is pre-determined and this blueprint is only read and implemented in early development.

In contrast to this outdated model, and based on contemporary insights in the workings of genes, even a proponent of an evolutionary genetical approach to archetype theory as Goodwyn (2020) states:

> "Genetics can tell us about the effects of the absence or presence of a particular protein, or it can tell us about biomarkers for various mental illnesses, but for more specific questions about psychic contents, genes are not very useful because the processes involved are just far too complex. It is a long and labyrinthine journey from gene to psyche (even ignoring the difficulties of the mind-body problem), with ultra-complex details we can barely track and the danger of cross category errors (like asking how genes can encode symbols) looming around every corner. Genes modify each other, and still other genes modify those genes that modify other genes." (p. 2-3)

Epigenetics

> "The term epigenetics refers to stable changes in gene expression activity that arise without changes in the DNA sequence. A principal function of epigenetic alterations is to allow cells to develop and maintain specialized functions. For example, epigenetic alterations can modify a cell's ability to transcribe a particular gene into RNA. Because RNA serves as a template for the translation of proteins, these epigenetic alterations often have a downstream influence on how much of the gene's protein is ultimately synthesized. When this process takes place across many different genes, it can give rise to significant phenotyping diversity among cells of the body. .. Epigenetic modifications to DNA typically occur in one of two ways. The first modification is DNA methylation, which involves the attachment or removal of a mesial group to cytosine residues in a gene's promoter. The mesial groups prevent transcription factors from interacting with DNA to modulate gene expression, which makes the gene inactive. The second form of epigenetic modification involves changes to the chromatin structure that packages the DNA. This process occurs by attaching or removing chemicals from the histone proteins that hold DNA within the cell's nucleus. These proteins cause the DNA near the gene to become more or less tightly coiled, which makes it more or less difficult for RNA polymerase and transcription factors to access their promoters." (Cassidy & Shaver 2018, p. 186)

It has been found, in recent years, that there are different mechanisms by which genes interact with their environment. Biological and genetic structures can be even changed by social and mental influences during development (Bauer 2008, 2006, 2005, 2002).

> "New discoveries regarding the genetic mechanisms of early development over the past decade have provided the basis for an integration of the fields of evolutionary and developmental biology.

> Development can now be viewed as a major source of potentially adaptive variation for selection to act upon in the course of evolution. We have learned that genes are not only instruments of inheritance in evolution but also targets of molecular signals originating both within the organism and in the environment outside it. These signals regulate development. Rapid progress in understanding these molecular genetic mechanisms has revealed an unexpected potential for plasticity, which can enable relatively few evolutionarily conserved cellular processes to be linked together by differential gene expression into a variety of adaptive patterns that respond to environmental changes, as well as to genetic mutations. The resulting plasticity allows a variety of developmental pathways, evident in both behavior and physiology, to be generated from the same genome. This discovery of the central role for the regulation of gene expression in development and novel epigenetic mechanisms mediating this regulation have at least provided a specific locus and mechanism for the frustratingly vague and much debated concept of gene environment interaction." (Polan & Hofer 2018, p. 118)

It seems that there are sensitive periods for the development of certain capacities and competencies, such as language acquisition or the development of a secure attachment. Again, this demonstrates that the genetic makeup is only responsible for preparing the human infant and child to be especially sensitive for environmental stimuli, namely caregiver behaviour and interaction, but it does not shape or preform it.

Most notably are the two mechanisms described above, DNA-methylation and histone modification, which can be labelled as epigenetics. Put simply, genes are not only comprised of information for the construction of certain proteins (coding unit) but include a sequence which can receive signals from the environment in a biochemical way (initially from the direct environment of the cell, but also from the person's environment through neuro-biochemical signal transmission) and implement this in a gene's activation or deactivation – a gene switch or promoter. A gene is then not simply carried out like a blueprint, but rather it is switched on and off depending on the environmental conditions, something that is described as 'gene expression'. This 'gene switch' can be 'packaged' either through the coiling of the histone or by adding methyl groups. Both processes have the effect that the 'gene switch' is less easily accessible or even completely unreachable, and that therefore the gene can be less easily or not at all read. The most interesting thing about this new insight is, that this 'packaging' can be altered through early experiences within the uterus and in the first months of life. An example would be the modification of the reaction to stress (Bauer 2006, Meaney 2010): Maternal care in the first months of life leads to various neuro-biochemical intermediate steps to remove the methyl groups from the gene switch of the glucocorticoid receptor gene, which means that the gene is permanently accessible for reading. This causes a permanently lower level of stress hormones (e.g., cortisol) and thus represents a permanent buffer against stress. Based on these early investigations by Michael Meaney (2010), the processes around the establishment of stress coping mechanisms on the biological level are now very well investigated (for an overview see Roth 2019). In addition to the above-mentioned processes, in which the quality and intensity of maternal care modulates the development of the regulating mechanisms for stress hormones, it was found that also the prenatal levels of stress in the pregnant mother-to-be have an influence on the development of the stress-axis in the embryo. After birth, stressful events for the child as well as for the mother, e.g., a conflictual separation of the parents, can have comparable effects and results in long-lasting changes on a biological level, e.g., in the density of receptors for certain hormones, e.g., oxytocin. In effect, the general capability for stress regulation and coping as well as the self-soothing system are

permanently changed. Thus, it can be concluded that psychosocial experiences, e.g., the extent of maternal care, have far-reaching and long-lasting effects on the biological level.
Francis Collins, one of the leaders of the Human Genome Project and one of the world-leading human geneticists, summarises the current insight in the interaction of predispositions and the environment, by writing 'that the gene builds the basis on which the environment has an impact' (Collins 2011, p. 231) and cites his colleague Matt Ridley: 'Genes are neither puppeteers nor blueprints. And they are not simply hereditary factors. They are active throughout life, they switch both on and off, they react to the environment. They may control the structure of the body and brain in the womb, but then they disassemble and rebuild everything that they have already established – solely in reaction to external stimuli. They are at the same time the origins as well as the results of our activities. Sometimes the supporters of the 'environmental side' are so frightened by the strength and inevitability of the genes that they overlook the most important message: the genes are on their side' (Collins 2011, p. 231). This last observation plays on the famous debate of 'Nurture or Nature' which has essentially dominated the discussion in numerous sciences, for example in developmental psychology, throughout the 20th century. Regarding this debate it can be said that this question, namely of whether or not a biological system or environmental factors are prevalent in the formation of mental features, has basically been answered through the knowledge of epigenetics – both are correct. The interesting question here actually is: How does the interaction between the two variables work?

Gene-environment interaction

Bakerman-Kraneburg & van Ijzendoorn (2018) give a comprehensive account of the insights of contemporary research into epigenetics and the mechanisms of gene environment interaction. These insights contrast strongly with earlier conceptions, where it is assumed that the genetic makeup of every individual is invariable, originating from conception and remaining basically the same across the lifespan. However, it was found that even monozygotic twins with identical DNA structures may grow apart in gene expression because of changes in the epigenome that influences the expression of genes. It was discovered that three-year-old twin peers had about 1000 gene differences, whereas when the two have reached 50 years of age the differences account to more than 5000 differently expressed genes.

> "One of the most widely studied epigenetic mechanisms is methylation, which is, simply put, the blocking of gene expression through the linking of a mesial molecule to one of the basis, located in a gene promoter region. Methylation might be loosely compared to a cork on a bottle of champagne, down regulating the escape of bubbles (the messenger RNA and thus modulating the level of protein and enzyme production encoded for by the specific gene). Epigenetic studies of the rodents have made clear that the caregiving environment (e.g., the amount of licking and grooming and arched back nursing that parents provide) may radically alter methylation patterns and, consequently, gene expression in the pups, and not just in the pups exposed to sensitive parenting (or deprived thereof) but even in these pups' offspring. In particular, methylation of the GRG (glucocorticoid receptor gene; CR.) induces long-term changes in response to stress, affecting the next generation." (Bakerman-Kraneburg & van Ijzendoorn 2018, p. 162-163; see also Meaney 2010)

The authors provide summaries of empirical studies supporting this viewpoint: the brains of deceased young males from a suicide brain bank with and without a history of abuse were examined and compared to a matched group of victims of fatal accidents. They found that through methylation GR gene expression (which is crucial in the down regulation of the levels of cortisol) in the brains of the suicide victims was decreased, but only when they had experienced child abuse. These specific epigenetic alterations have also been found as a result of child maltreatment or structural neglect in orphanages and in adolescent children whose mothers were exposed to intimate partner violence during pregnancy.

So genetic research has now identified different gene variants which accompany mental features, but nevertheless also integrate with environmental influences. Small variances in the 'depression gene' (5-HTTLPR), for example, increase the risk of depression – although only in conjunction with adverse childhood experiences. Similar results to those mentioned above were found for the 5-HTTLPR gene and its variants which have been associated with depression:

> "Carriers of the long variant of 5-HTTLPR showed more unresolved loss or trauma but only when demethylation was observed. Thus, the potentially protective effects of the long variant seem to be mitigated by the effects of methylation suppressing the activity of this variant. … What this study shows, however, is that genetic effects on attachment might be hidden behind interactions with epigenetic changes, which in turn might be critically dependent on environmental input, such as abusive or neglectful parenting." (Bakerman-Kraneburg & van Ijzendoorn 2018, p. 163)

Belsky (2009) coined the term 'differential susceptibility' for this. For a detailed overview of the discussion see Teicher (2011).

Taken together, these results mean one thing first and foremost: Even when humans are without a doubt constructed with genetic information, the experiences, especially those in the early stages of development and predominantly experiences in relationships with caregivers, essentially play a role in which genetic information can be read, and indeed how and when they are read (gene expression). 'Experience itself can modify the expression of genes' (Marcus 2004, p. 98). Haule (2010) moreover observes: 'Specifically, the genes whose expression is modified (turned on or off) are those that manufacture the proteins which alter the synapses, 'hardening' the wiring in some and 'softening' it in others' (p. 143). Experiences ultimately cause a very different formation of the same genetic predispositions and certain genes can generally be activated based on certain experiences. The key word of modern developmental theory is, therefore, no longer 'blueprint', but rather 'interaction'. The debate of 'Nurture or Nature' has therefore become obsolete.

A particularly important implication concerns the universality of archetypes. Jung thought the archetypes to be present in the same way for all people and that this would only be guaranteed when the archetypes are genetically rooted. Present day genetics calls this into question. Even if something is genetically predisposed, it in no way means that it also leads to the same characteristic in all gene carriers. As has been shown, this depends to a high degree on environmental influences, with the consequence that the statement: 'the same gene is present in multiple people', means hardly anything. This also means the argument, that archetypes arise from the same construction of the human brain, becomes obsolete because this similarity is in no way a given (see also above). If people have different experiences over

the course of their lives, then they ultimately also have different brains, due to the experiences having an impact on the structure of the brain. In addition, there exists the insight in the high sensitivity of biological development to context conditions. Even the smallest influences can in the course of development trigger massive changes so that, even by optimal control of gene and environmental conditions, practically no predictions about the formation of features is possible.

This clashes primarily with one of Jung's conceptions, which implicitly pervades his entire work. He contests that the individuality and the mental idiosyncrasy of a person are somehow innate, preformed, and independent from external influences – archetype theory is only the most prominent form of this underlying conception (see also Roesler 2021). This over-emphasis of the autonomy of the individual and the interior is surely, to use Jung's own words, his 'personal equation'. Jung has made an enormous contribution to the rehabilitation of the interior and the imagination, of introversion and individual development in the psychology of our rather extraverted culture. This orientation had the downside, in my opinion, however, that it neglected for the most part the significance for development of interpersonal relationships. Moreover, it can be said that the current insights of epigenetics only strengthen the significance of the environmental conditions, and in particular those of early relationships with caregivers, namely that the same genotype, dependent on the environmental conditions and here above all experiences in close relationships, leads to completely different formations, not only in the mental, but also in terms of physical biology. The consequences for the role relationships play in development and in psychotherapy will be discussed in the chapter 'Core theory'.

Temperament

Jung, with his ideas about typology, can be counted to those scholars who strongly argue for inter-individual differences in temperament. Now, the interesting insight in recent studies regarding temperament differences, is that psychological qualities associated with temperament, in contrast to earlier conceptions that they form stable personality orientations which are not influenced by environmental differences, are the basis for brain plasticity and for flexibility in reaction to changes in the environment.

> "These kinds of results offer compelling evidence that variations in human action, cognition, and emotion have a material basis, and that the central nervous system participates in these functions in a complex, transactional manner. Moreover, results of these studies support the notion that virtually every physical/physiological structure associated with temperamental variability has multiple functions in both development and adaptation, and that these functions may become reorganized as the environments to which the child must adjust change over ontogenetic time. Finally, the studies highlight the interactive nature of these underlying material participation in behavior, cognition, and emotion, in so far as the effects of temperament and their underlying structures are often mediated and/or moderated by aspects of the physical and social environments." (Vaughn & Bost 2018, p. 205)

Differences in temperament have also been linked with Panksepp's basic emotion systems (for details see below):

> "The above studies link primary emotions to limbic brain activity. Furthermore, individuals whose brain systems have higher medial cortical resting state levels of activity are more reactive to a neutral

> stimulate and respond differently to events. It is our position that individual differences in such higher affective as well as lower primary process affective brain systems (rage, fear, and sadness) along with the positive affect systems of play, caring, and seeking are foundational for personality expression as well as the emergence of mental anguish and pathology. Individuals with different levels of responsiveness in these primary brain systems not only react differently to the same stimulate, they will experience the stimulated differently and develop different conditioned response tendencies and ongoing personal preferences." (Davis & Panksepp 2011, p. 1954)

For a number of years now, neurobiologists and neuropsychiatrists have been searching for genes or gene combinations which are responsible for the outbreak of psychological disorders and psychiatric diseases. This movement was strongly backed by pharmaceutical industries in the hope to find drugs which could heal psychiatric disorders. After more than two decades of this kind of research the results are more than disappointing. It becomes even more clear that even very complex combinations of genes account for just very small percentages of the variance, that is for the influences behind the outbreak of psychological illnesses (Plomin et al., 2013). So, for example, more than 1000 genes and their combinations have been associated with depression, but even in the largest samples and when all of these gene variants are taken into account, they can explain not more than 2-4 % of the differences between people suffering from depression and those who never experienced anything like that at all over their whole life course.

> "Molecular genetics has been used as a tool in search for specific genotypes related to parenting and to attachment security and disorganization. However, few, if any, clues for finding attachment genes have emerged. … In fact, the search for main effects in genetics of human behaviours and disorders has been generally disappointing even to the most influential and optimistic gene hunters. Ever larger samples account for ever smaller variants in traits on the level of singular genotypes. … It seems safe to conclude that the intergenerational transmission gap between parental and child attachments cannot be breached by genes alone or by separate accounts of genetic and environmental input." Bakerman-Kraneburg & van Ijzendoorn (2018, p. 173)

The biological approach in psychology and psychiatry and its devastating effects

Authors in the field of analytical psychology who tend to stress the biological foundation of archetypes, often neglect the fact that the biological approach in psychology and psychiatry, apart from not being able to find reliable connections or provide effective treatments, has had devastating effects on the field of psychotherapy and the treatment of psychological disorders. Andrew Scull (2021), in his overview of the development of American psychiatry from the 1980s – characterized by "… the rapid decline of psychoanalysis that followed the publication of DSM III; the rising influence of genetics and neuroscience; the re-emphasis on the biology of mental illness; and the collapse of public psychiatry that accompanied deinstitutionalization", argues "... that while genetics and neuroscience have made scientific progress, the clinical utility of their findings to date has been very limited. The fifth edition of the DSM was supposed to base itself on this new science but that proved impossible. Diagnosis remains purely phenomenological and controversial. One of the ironies of research on psychiatric genetics is that it has failed to find either a Mendelian origin of schizophrenia and depression or to validate the importance of hypothesized candidate genes. Genome-wide association studies have instead uncovered risk factors for major mental illnesses, but these overlap considerably, and the genetic associations are not dispositive. Most of those who carry these genetic variants do not develop mental illness." The paper concludes with an assessment of the crisis that it contends to confront contemporary American psychiatry: ".. its

overemphasis on biology; the urgent questions that persist about diagnosis and therapeutics; concerns about the directions of future research; and its inability to reduce the excess mortality that plaguesthe mentally ill.“ (p. 1).
“Fueled also by the funds provided by the pharmaceutical industry, the centre of gravity in American psychiatry had shifted rapidly away from psychoanalysis, and the expectation was that the billions of dollars flowing into genetics and neuroscience would soon translate into a greater understanding of the aetiology of the major psychoses, and rapid clinical advances. … Those expectations have mostly been disappointed. …The arrival of PCR, licensed in 1989, and the sequencing of the human genome, announced in 2003, seemed to promise that the genetic basis of serious mental disorder – previously something that could only be inferred – would soon be demonstrated directly and unambiguously. That has not happened. Claims to have discovered the genetic basis of schizophrenia have repeatedly failed the test of replication. There is increasing scientific consensus that ‘despite our wishing it were so, individual gene variants of large effect appear to have a small to non-existent role in the aetiology of major psychiatric disorders’. Repeatedly, researchers prioritised candidate genes that plausibly looked as though they might explain the genetic roots of schizophrenia and major depression. But none of those proposed linkages has survived close scrutiny. It was not just that the maximal claim – that schizophrenia, for example, was a Mendelian disorder – was quickly shown to be false, but that even an alternative hypothesis, that ‘a substantial proportion of the [hypothesized] genetic signal could have been concentrated in a few large-effect genes’ was soon rejected. In place of candidate genes, genome-wide association studies (GWAS) have been employed across a whole spectrum of psychiatric disorders, encompassing tens of thousands of patients. Unfortunately, hopes that these would uncover clear pictures of underlying biology of major mental disorders have quickly faded. Instead, the data show that hundreds of genetic variants may (or may not) contribute to the diagnosis of a particular case. Each of these is individual of small effect, and may be present without giving rise to the disease. They constitute polygenic risk factors predispose for mental illness, but so far they account for only a tiny percentage of the variance. .. Genes, it seems, are not fate, and the thousands of alleles that contribute a small additional risk of illness do not operate ‘in a simple deterministic manner’. Developmental and environmental factors must play a crucial role in whether the ‘nudge’ of these alleles manifests itself in mental disorder, which suggests that the over-emphasis on the biology of mental disorder has been a strategic mistake. … The biological monism that has dominated American psychiatry for 40 years and more has been unable to solve questions of causation. That should not come as a surprise. There is mounting evidence for the importance of social factors in the genesis of major mental disturbance“ (p. 3-4).

If this should be the case, even for the explanation of clearly defined major psychiatric diseases, then how difficult will it be to argue that such a complex entity as the anima or the myth of the hero are transmitted by genetical information? This has direct implications on the assumed universality of archetypes. Jung’s idea was that the universality of archetypes could only be secured theoretically if the archetype was conceptualized as genetically fixated. We can see today, the fact that a person carries a certain gene does not necessarily mean that the gene will be activated, as this depends very much on environmental factors. Genetical similarity is therefore not equivalent to similar qualities of persons.
At this point we can say:

- Complex archetypes (symbolic patterns) cannot be transmitted genetically
- Environmental factors, especially interaction with caregivers, have enormous influence on gene expression – they can influence development much more than hereditary factors
- The similarity and universality of archetypal patterns cannot be secured by genetic encoding

Merchant (2009) goes as far as saying: 'If contemporary neuroscience does ultimately reveal that the archetype-as-such is not innate as originally conceived, then the question arises – is the word "archetype" itself too suffused with innatism and preformationism meanings to prevent confusion? … for if we think, act and clinically practise as if archetypes are *a priori*, innate psychic structures which determine psychological life when this is not the case, then we could become irrelevant to the broader psychotherapeutic community' (p. 355).

I agree with Knox (2003), who has extended this argument in much more detail: we Jungians cannot go on basing our theory of archetypes on scientific assumptions which have been falsified by more recent research if we do not want to run the risk of being ridiculed in the scientific world. It is important for us to stop arguing that archetypes are transmitted genetically if we are to be taken seriously.

Based on these insights, a strong movement in analytical psychology departed from the approach that was characterized as naïve biological determinism and created a new hypothesis about how archetypes come about.

The emergence model of archetypes

In the aftermath of the above-mentioned Hogenson versus Stevens debate, several Jungians pointed out the implications of the above findings of gene environment interaction for archetype theory (Knox 2003; Hogenson 2004; Merchant 2006) and formulated a new conceptual framework for the explanation of archetypes based on the principle of emergence. This theory takes up these insights and views archetypes as a product of processes of emergence.

> " […] archetypes are the emergent properties of the dynamic developmental system of brain, environment and narrative. … the presence of simple patterns of perception and action, and species typical forms of interpretation, embedded in the typically human environment of symbolic, narrative interaction will be seen to give rise to the immense beauty and complexity of the great myths of our species." (Hogenson 2001 p. 607/8)

The most elaborated formulation of this approach is Jean Knox' (2003) book *Archetype, Attachment, Analysis*: Here she sees development starting from genetically fixed mechanisms, but these are only predispositions for development which need certain cues from the environment to unfold.

> "Innate mechanisms focus the infant's attention onto features in the environment which are crucial to the infant's survival; these mechanisms are biologically based and have arisen by the process of natural selection because they improve chances of survival. Innate mechanisms are activated by environmental cues, interacting with them and organizing them, leading to the formation of primitive spatial and conceptual representations (image schemas or archetypes). These form the foundation on which later, more complex representations can be built." (Knox 2001, S. 631)

It becomes clear that we have to accept the of environment and socialisation on the formation of archetypes. I understand Merchant to be referring to this point when he says:

> "It does need to be noted at this point that it is still not clear why anyone person's archetypal imagery takes the form that it does if it is not arising from innate archetypes. … The crucial point is that such imagery would be arising out of mind brain structures which are themselves derived from early preverbal developmental experience and not from innate archetypes. The ramifications are substantial, for the very existence of archetypes as Jung conceived them is called into question." (Merchant 2009 p. 342)

Merchant (2012) has excellently summarised the implications of these insights for the theory of archetypes, as well as the current state of the debate between proponents of a fully biological grounding of archetypes, versus supporters of an interactionalist viewpoint. Interestingly, Merchant comes to the realisation in this recent work, through reviewing Jung's own case studies, with which he sought to prove the genetic predisposition of archetypes, that all of these classic case studies can also be explained without the stringent assumption of biologically inherited archetypes.

> "Contemporary Jungian scholars try to reformulate the theory of the archetype in terms of modern science. Among one of the most well formulated approaches is the model which theorizes that what Jung might have meant with the archetype is similar to what contemporary cognitive semantics calls image schemas. In this sense the archetype is looked at as an early achievement of development resulting from the qualities of the brain as a dynamic system and the interactions between the individual (biological and psychological) and the environment (social, cultural and physical). This understanding of the archetype uses a dynamic systems approach to cognition and action. This approach relates to the process of formation of preverbal image schematic representations in the infants' brain which are largely determined by the history of the brain as a system, i.e., are based on the experience the system has in the physical world and the ability of the brain as a dynamic system to self-organize. Later on, this pre-verbal neuronal activation patterns serve as a foundation for the development of conceptual thought – categories and concepts. In themselves these neuronal activation patterns constitute attractor states for the dynamic system of the brain." (Sotirova-Kohli 2014, p. 18)

A detailed example of such developments is provided by Knox (2003): New-borns are equipped with rudimentary, genetically coded programs for perception and behaviour. For example, cognitive biologists describe a gene which makes the infant attend to structures that resemble the human face for a longer time than other structures (Knox 2003, p.50-51). This does not mean that the infant has a knowledge of the human face or of a person. This pattern is on a very primitive, even reflex level of functioning. But the effect of this pattern on the caregiver is enormous: the caregiver perceives the gaze of the infant as an initiation of communication, and starts to communicate with the infant. This attracts the attention of the infant and leads to activation of neuronal structures that foster neuronal development. The caregiver on the other hand is pulled into the attachment with the infant. So, this very primitive genetically activated pattern has major implications: it starts a sequence of developments that strengthen the attachment bond and support neuronal development of the infant.

This complex development is reached by a minimum of genetic information but presupposes the existence of a caregiver who reacts to the gaze of the infant in the way described, a point that remains implicit at this stage of Knox's argument. So, this developmental sequence depends very much on the existence of a certain environment. If the caregiver, for example,

is permanently drunk and does not acknowledge the gaze of the infant, no developmental sequence will start, and the genetic information has no effect. Developments like this can be found, for example, in the case of the above-mentioned glucocorticoid-receptor-gene, where a lack of motherly care actually leads to a personality with a much lesser protection against stress. This again falsifies the argument; archetypes were based in the universal similarity of the brain's structure (e.g., Stevens 2003). In fact, people have different brains depending on the (early) experiences they had.
Knox writes about these basic schemata:

> " [I]t is a mental Gestalt which develops out of bodily experience and forms the basis for abstract meanings, both in the physical and in the world of imagination and metaphor. … These image schemas are early developmental mental structures which organize experience while themselves remaining without content and beyond the realm of conscious awareness." (Knox 2004: 69)

Note: this definition of archetypes clearly acknowledges that these "develop out of experience" and are a product of early development – this is in strong contrast to Jung's original definition that archetypes are not a product of experience and have never been part of the individual's experience.

Critique of the emergentist position

Now Knox claims that the emerging archetypal structures are universal because the environmental conditions in this early stage of development are the same:

> "[…] these image schemas … are not innate, but already reflect a considerable degree of learning. The pattern of learning is nearly identical for all children because certain key features of the environment that the child's attention is focused on remain constant across all cultures." (Knox 2003, pp. 61/62)

However, the emergence approach to archetypes is not satisfying given the theoretical problem we have to solve. Saying that archetypes are emergent properties does not really explain how these properties come into existence in any detail; the concept remains too vague as, for example, in the quote from Hogenson above. As long as nobody can draw a detailed explanatory line of development from a basic human pattern to something as complex as "the myth of the hero" and still prove that this development takes place in every human being in the same way, then this approach remains unconvincing.
Do we not have to assume that there are more differences than similarities in the development of children, given that research cannot find even basic similarities in strategies of childrearing across cultures (Ahnert 2010)? Coming back to the aforementioned example of the gene that makes the infant look at faces: According to Knox the neuronal structures and the first primitive representations develop from interactions are based on innate predispositions. This complex development is reached by a minimum of genetic information – but: it presupposes the presence of a caregiver who reacts to the gaze of the infant in the way described. If the mother for example is constantly drunk and does not recognize the gaze of the infant, there is no interaction and no unfolding of the basic genetic information. So, this developmental sequence depends very much on the existence of a certain environment. Even something as basic as "containment" is not, as we know, experienced reliably by every individual.

Secondly, although Knox can certainly draw a detailed line of development from genetic information to image schemas - apart from the problem of assumed similarity of environment just mentioned above - it nevertheless seems to me that the end products of this development (i.e. image schemas) are still on such a primitive and basic level that a huge gap between these primitive schemas and the concept Jung is talking of (e.g. he speaks of the myth of the hero as an archetype) remains.

In my view, the emergence model is no real solution to the problem of how to explain the universality of complex symbolic archetypes. There are too many variables on the developmental path that could disturb the process of acquisition, at least to the extent that there would be major differences in the archetypes thus acquired – so they would not be universal anymore.

As I tried to show above by referring to epigenetics, even similar genetic information does not necessarily produce similar developments. We have also seen that the early developmental processes and their achievements can easily be disturbed to the extent that certain developments do not happen at all. Even the structure of the brain is not similar from person to person because its development is so strongly influenced by early experiences – e.g., a person with an early traumatization has a different brain from that of a person without (Bauer 2002).

I must therefore conclude that also the theoretical explanation for universal psychological archetypes provided by the emergentists is no solution to the general problem. At least however, this position makes clear that we should give up the assumption of a genetical transmission of complex symbolic archetypes, for everything we know about genetics today speaks against this. We also must accept that there certainly are major influences on the formation of archetypes from socialization and enculturation.

Gene-environment co-action and self-generated learning

In an attempt to clarify the still unclear relation between genome and developmental influences, which could not be clarified in the emergentist position, Goodwyn (2020a, 2020b) presents the concept of gene environment co-action. Because of the crucial question still being: “Just how do genome and environment combine to causally contribute to the development of the collective unconscious (meaning the unconscious contents that are universal by virtue of our species’ inheritance) and its archetypes, if at all?’ (Goodwyn 2020a, p. 914). Merchant (2009, 2020) has pointed out and summarized the earlier critique of the lack of clarification in the emergentist position: For instance, Maloney (2003) stated that “There are neither genetic effects without environments, nor are there environmental effects without genes. There is only a complex interplay that creates an emergent regularity, the features of which have yet to be fully described” (pp. 105-06). Similarly, Hogenson (Stevens et al. 2003) makes a parallel point in that “The crucial question in a discussion of biology and psyche is not whether the two domains are linked, but how they are linked’ (p. 368)“ (Merchant 2020, p. 133).

The concept of gene environment co-action, as presented by Goodwyn (2020a), emphasizes the reciprocal influence of gene activity, on the biological side, and behaviour as well as social and cultural influences on the other side. The concept emphasizes that there are genetic starting points, which in a certain sense are made for specific environmental input.

> "Archetypal images are composed primarily of archetypal elements—ordering principles that direct the formation of archetypal images. These are inherited along biological pathways. The genome directs their organization via the well-known genetic biological processes that direct all inherited characteristics. Such processes either involve no learning at all, or if they do involve any learning, it is self-organizing learning that has nothing to do with culture. That is, anyone raised anywhere on earth would teach themselves such elements with no need for specific instruction or imitation/observation (i.e., we are not born knowing the sun is round, but we need no instruction on this to obtain this knowledge)." (Erik Goodwyn contributing to the survey)

> "It follows a genetically directed trajectory that has some built-in environmental flexibility, provided it is *relevant* environmental variation (parental attachment) as opposed to irrelevant (the price of tea in China). The important thing to remember, though, is that *the genome* decides which kind of environmental input is relevant or not (by sending out specific environmental variable-detecting gene products), and the *genome* decides the circumstances required to seek out such input. This reveals a *spectrum* of gene-environment interactions ranging from genome-dominated (innate), where the genome is the active player, to complex situations where genome and environment interact intensely (partially innate) to the other end of the spectrum, where the environment is the active player (not innate). The point is that the mere presence of "environmental input" does not automatically imply "not innate". It depends on how such input is used." (Goodwyn 2020a, p. 916; same citation for the following quotes)

He then provides a number of examples:

- language acquisition capacity, upon which we *learn* a specific language
- mental rotation capacity
- ability to imagine and dream three-dimensional environments
- theory of mind
- capacity for mood
- basic emotional systems that underlie anger, fear, resource seeking, attachment, and sex (these are largely intact even at birth)
- facial and body expressions of basic emotions

He then points out that not all learned contents are the result of *locally observed or culturally taught* contents that are unique to the individual's personal history. Some learning is self-directed and universal, and would occur in *any* environment.

> "For example, learning to walk is obviously a genomically directed process (see Jung et al, 2018) but it involves trial-and-error type learning. This learning, however, has nothing to do with culture, observation, or imitation. It's self-organizing development strongly influenced by the genome." (p. 921)

> "Thus, psychological contents, for purposes of defining the collective unconscious, can be usefully divided into three types:

- Fully innately developing contents (theory of mind, mental rotation/manipulation of imagined objects, etc.) in which environmental input is in the passive, trivial, epigenetic modification sense, rather than in the active, learned sense of the environment actively changing how the organism behaves, rather than the genome simply reading environmental data to accomplish its ends.

- Self-organizing or self-learned contents (bipedal locomotion, image schemas, body sense, etc.) that are non-specific, universal, and unrelated to culture, imitation, or caregivers.
- Contents acquired via observation/imitation/experience of local, personal environment or caregivers and history (specific language-meaning links, experiences with parents and peers, various culturally elaborated skills like hunting, music, food processing, building, etc.)" (p. 924)

> Goodwyn includes the first two categories into the collective unconscious, "since they are either genetic, or universal and inevitable consequences of genetic products. Such contents are inherited and/or reliably self-organizing and universal and react to life events in species-typical ways throughout the lifespan. .. Whereas contents in the first 2 categories are responses to environments in *species-specific* ways based on ancestral history, contents in the third category are responses to environments in *individually-specific* ways based on personal history." (p. 924)
>
> Thus, Goodwyn comes to the following definition of archetype: "[…] *An image/narrative that is an indexical symbol of an emotionally significant experience that takes the subject's personal history, breaks it down and re-combines it into an expression conforming to innate organizational principles. It is so easily arrived at that evidence exists that it has been independently invented despite large variations in background. […]*
> Thus, an **archetypal element** is defined as *a universally self-organizing, emotionally significant, embodied symbolic association*. They arise in everyone as a result of species-typical gene-environment co-action that does not require learning in the above sense. Any learning involved in the construction of these is purely self-directed learning that will be immediately obvious to any normally developing member of species *Homo sapiens*." (p. 926)

Goodwyn then provides a list of examples: Cold = social isolation, Heat/fire = intense emotion, Light and dark = states of knowledge and safety, The Centre = the "important" part, Water = the hostile unknown or the mysterious, Size/Up = power, "Symmetry = conceptual harmony, round shape = wholeness.

Critique of Goodwyn's position

I have already pointed out above that such associations as Goodwyn provides as examples for archetypal elements can come about reliably through experience in the life of humans, and there is no need to assume any biologically preformed pattern of association. Goodwyn argues that similar mental structures are the result of self-directed learning, but he oversees the possibility that these similarities come about through experiences with comparable conditions in the world outside. It is not necessary to have a pre-formed category of above and below, because there is no way of getting around the experience of gravity. It is also not necessary to have a pre-formed pattern for a circle, as there are perfect circles in nature, e.g. the sun, the moon etc. and, as I have pointed out above, the circle is in itself a perfect shape, so it is no wonder that it was associated with perfection and completeness in different cultures. There is no doubt that such developmental processes as Goodwyn describes exist and that they can explain a considerable amount of learning processes in humans. We will also see below, when contemporary theories of innate mental capacities are discussed, that several of the elements that Goodwyn describes are, in fact, part of the biological makeup of humans. Nevertheless, this approach cannot explain how such complex symbolic structures as the anima, the wise old man or the journey of the hero should come about. It is very clear that the examples Goodwyn provides are far away from such complex structures. It is interesting that this author provides as evidence for the existence of such genetically preformed processes the example

of a bacteria – which is certainly quite different from higher mental structures in the human mind:

> "To that end we will look at the classic didactic case of the *lac* operon of the organism E. Coli, followed by a discussion of what is really meant by the genome 'encoding' a particular process." (Goodwyn 2020a, p. 915)

John Merchant (2020), in his response to Goodwyn's argument, stresses the point that the emphasis on the genome in gene environment co-action is problematic, if not dangerous.

> "This highlights that preformationism (as some kind of automatic archetypal red out mechanism) and the idea of autochthonous revival of archetypes are suspect concepts, and this needs to be taken into account in clinical work … However, such a gene-environment coaction aspect of genetic research gains minimal attention in Goodwyn's (2020) paper, no doubt because his focus is more on the genetic background rather than any environmental foreground." (p. 132)

So in sum, Merchant realizes that Goodwyn does not fall into simplistic and naïve assumptions about preformationism, which, as he notes, are widespread among Jungians today, but he criticizes the overemphasis on the biological/genetic side of the interaction and neglecting the influence of environmental input and development.

> "Critically, once developmentally produced mind/brain (image schema) structures are in place, they have the capacity to generate psychological life. Imagery can then appear as if it is innately derived when that is not the case." (p. 133)

He then quotes Lickliter (2017, p. 88):

> "Although much research in evolutionary biology continues to focus on identifying genes for phenotypic innovations, there is a growing trend among researchers toward exploring gene function and regulation in the context of changing internal and external environmental conditions. Fundamental to this approach is the recognition that although genes are essential to development, heredity, and evolution, they are not causally privileged, but, rather, are part of the individual's entire developmental system. I argue that evolutionary explanation cannot be complete without developmental explanation because it is the process of development that generates the phenotypic variation on which natural selection can act."

What may be even more important is the fact that, although Goodwyn puts an emphasis on the biological side, he implicitly introduces an important role of experience. This definition departs clearly from Jung's original conceptualization in the sense that archetypes are no longer pre-formed before any personal experience. The same applies to the above-mentioned emergentist position:
"Archetypes play (a key role) in psychic functioning and (are) a crucial source of symbolic imagery, but at the same time (are) emergent structures resulting from a developmental interaction between genes and the environment that is unique for each person" (Knox 2003, p. 8). This big shift in contemporary conceptualizations of archetypes, which attributes a major role to (early life) experience in the coming about of archetypes, is also reflected in contributions to the survey:

> "A modern view of archetypes, much taken up within the SAP, is to understand archetypes as 'emergent' principles that come out of experiences that are common to all of us through our natural, early human experiences."

The problem, or better to say the major contrast to classic archetype theory, inherent in this reconceptualization is pointed out in the following quote – again from the survey:

> "The exclusion of phenotypic environment is important as without this, archetypes would be subject to essential change due to environment and there is no need for such a concept: biology would be perfectly adequate in this case since it speaks quite authoritatively on contingent environmental constants."

Jung, evolutionary thought and Darwinian theory

Even though Jung argues in a very evolutionist way, it seems that he did not fully understand Darwin's theory (1859, 1871), insofar as Darwinian theory – with its modern reconceptualizations (Huxley 1948, Pigliucci 2010) - clearly points out that the only driving mechanisms of evolution are mutation and selection. Jung hardly quotes Darwin (twice in the CW), although the whole biological line of thought in his archetype theory is based on an evolutionary approach to human development. It seems that Jung had only a very vague idea of evolutionary theory, and as if he was also not greatly interested in it.

Jung argues that archetypes are the result of precipitations of experiences of early humans repeated again and again. This is in strong contrast to the insights of modern evolutionary theory, which has found out that the only mechanisms at work in changing the genome are mutation and subsequently selection. There is no way how experiences can change the genetic code, the so-called Weissmann-Barrier (Huxley 1948): all the epigenetic changes that have accumulated over an individual's life course are extinguished in the genome of the germ cells[7]. The way of argumentation that can be found in Jung is called Lamarckism, an early evolutionary theory by Jean Baptiste Lamarck, that was refuted by Darwinian theory – but even Lamarck is not quoted by Jung. Jung's argumentation led to a confrontation at the Eranos conference in Ascona in 1948 with the biologist Adolf Portmann, who pointed out to Jung that his argumentation was not in line with contemporary insights in evolutionary biology (Shamdasani 2003). As a consequence, Jung introduced the concept of the archetype as such, but this did not provide a solution to the problem, as pointed out above. Additionally: "Although Lamarck's theory was clearly outdated long before he died, as far as I know Jung never repudiated his Lamarckian orientation." (Neher 1996, p.66).

This attitude towards evolutionary theory that becomes visible in Jung tells us that, apart from not really understanding evolutionary theory, Jung was also not interested in these biological concepts. Apart from not correctly quoting and not making use of evolutionary theories, Jung seemingly never updated his knowledge about the theoretical developments in evolution theory; for example, he would have been able to read Huxley's modern synthesis of Darwinian theory, which was first published in 1942; he would also have been able to learn about the discovery of the DNA code by Osvald Avery and colleagues in 1944 and the consequences for the understanding of evolutionary developments, if he had been interested. He also used the

[7] With the exception of newly found epigenetic changes that can be transmitted from one generation to the other, but these are only on the physiological and not on a psychological level, e.g., the experience of starvation in a pregnant mother can lead to epigenetic modifications in the child, leading to higher caloric intake in the later life of that person

technical term pattern of behaviour and introduced it into his archetype theory in the late 1940s, when he came across the first publications on ethology, e.g., by Konrad Lorenz (1941) and Nico Tinbergen (1951), but again without quoting these publications. Even in the whole chapter with the title "Pattern of behaviour and archetype" published in 1947 (CW 8, paras. 397-420) the only reference to biology provided is a German translation from 1909 of Conway Lloyd Morgan's "*Animal Life and Intelligence" of* 1890. Paradoxically, Morgan, in his model of ethology, emphasizes the point that the evolution of consciousness cannot be explained by biological measures alone; he also takes the viewpoint that in ethology only observable behaviour should be regarded as a proper scientific description, and was thus a precursor of behaviourism. This again demonstrates how careless, yes sloppy, Jung's approach was to scientific knowledge and its use in his theories.

It seems to me that he used these concepts from natural sciences merely as a defensive strategy to create the impression that his archetype theory was a real scientific theory and part of the natural sciences, and thus to impregnate it against critique (see also Trevi 1992, Papadopoulos 1992). Paradoxically, the biological part of archetype theory has become the most controversial and the most questionable, as will be demonstrated below.

Andrew Neher (1996) in his detailed analysis of the scientific base of Jung's archetype theory points out some more problems connected with evolutionary theory. Referring to Jung's argument that archetypes arise from endlessly repeated typical experiences of early humans:

> "It is clear that many typical situations involve cultural innovations – distinctive varieties of tools, shelters, weapons, clothing, and so forth – that evolved long after humans have dispersed to the far corners of the earth. Many of these dispersed groups had little contact culturally and genetically, with other groups. The many cultural innovations evolved in limited areas that never spread to certain regions of the world until the advent of modern means of communication. Additionally, of course, cultures also vary in social organization, environmental conditions, and so on. Because archetypes evolve from continuously repeated experiences of humanity and because of these experiences necessarily vary somewhat from culture to culture, we should expect that the corresponding archetypes will also be varied. This expectation is reinforced by the long time period involved since the disposal of human populations around the world. There has been plenty of time, in other words, for distinctive archetypes to evolve. This reasoning, of course, is directly contrary to Jung's belief that we all inherit identical archetypes." (p.67-68)

> "However, for many archetypes, it is difficult to imagine how they arose through a process of evolution. For example, Jung stated that concepts such as ether arise from archetypes. (The ether was a substance once postulated to exist in space to provide a medium through which light waves can travel). Because the ether theory turned out to be incorrect, it's hard to imagine how it could have contributed to the fitness of people who were genetically predisposed to believe in it. In fact, because archetypal images, as in the case of the ether theory, do not necessarily bear any relationship to external reality, this implies that there are a large number of archetypes that can lead us down wrong paths and thus, instead of enhancing fitness, will actually reduce it. It is obviously difficult to conceive how such archetypes could evolve." (p.69)

Another major problem in Jung's theory is what Neher (1996) calls the decline in the importance of inherited traits:

> "Another obstacle that Jung's genetic theory of archetypes faces is that, with some exceptions (for example, our capacity for language), human evolution has been distinguished by the extent to which the genetic programming of our lives has diminished. Furthermore, there is general agreement that this genetic programming has progressed furthest with respect to traits, such as the content of mental

> experience, that most distinguish us from other animals. The problem is that these are the very traits upon which archetypes, if they indeed exist, would depend. Put another way, the fact that our conceptual experience is largely independent of our genetic heritage makes it possible for us, more than any other species, to conceptualize totally new ways of dealing with the world. The concepts that proved useful, of course, become part of our cultural heritage, which we then acquire through our experience, not through our genes. As far as I know, there is no body of evidence, other than that offered by Jung and Jungians, that we inherit an extensive collection of unconscious conceptual content, such as the theory of archetypes proposes. … In summary, then, when Jung's theory of the genetic basis of archetypes is held up to the light of what is known about genetics and evolution, we find that it violates some basic principles in these fields. This analysis, then, does not support the notion of genetically-based archetypes – at least as Jung proposed it. … The analysis above demonstrates that although Jung's theory of archetypes draws upon notions of evolution and genetics, he did not base his arguments on well-established principles in these disciplines." (p. 70-71)

If one looks into contemporary conceptualizations of evolutionary theory, it quickly becomes clear that contemporary views have departed strongly from the original Darwinian conceptions. A very interesting finding for a discussion of archetype theory was reported by the anthropologist Henry Harpending (Weiss 2018): he could demonstrate that the mutation rate of the human genome changed over the course of the development of Homo sapiens consequential to cultural developments. So, for example, the mutation rate changed 40,000 years ago when Homo sapiens began to inhabit Europe, and it accelerated again by a factor of 100 around 5000 years ago because of the introduction of agriculture and the accompanying massive changes in the way of life (the so-called Neolithic Revolution, see chapter Prehistory). This demonstrates that evolutionary processes interact with environmental changes and especially with cultural factors, so that the species can adapt to changes in life conditions more quickly. It can, in fact, be argued that the Homo sapiens, by developing culture and civilization, changed their own biological evolution.

An overview of the insights on contemporary evolutionary psychology[8]

Following the publication of the first account of evolution theory by Darwin, the ideas and principles were applied to human development and also human psychology, as an attempt to explain the specificity of certain human behaviours. This line of thought has developed into what is today's evolutionary psychology (the account below follows the overview by Buss, 2015). It is obvious that Jung was very much influenced by these ideas, which had an enormous impact on the shape he gave his theory of archetypes. The founders of the biological discipline of behavioural biology or ethology, Niko Tinbergen (1951) and Konrad Lorenz (1941), started to publish in the 1930s. The issues these ethologists were interested in were:

1. The immediate influences on behaviour
2. The developmental influences on behaviour
3. The function of behaviour, or the adaptive purpose it fulfils
4. The evolutionary or phylogenetic origins of behaviour

[8] The findings of evolutionary psychology and the relation of evolution/biology vs. culture/society was extensively discussed in an interview with Prof. Dr. Michael Müller-Schneider, Department of Sociology, Universität Landau/Germany; see also references.

They also coined and investigated the terms instinct and pattern of behaviour (Tinbergen 1951); fixed action patterns are the stereotypic behavioural sequences an animal follows after being triggered by a well-defined stimulus. They found that once a fixed action patterns is triggered, the animal performs it to its completion. This concept can be found again in Jung's idea that once an archetype is activated, it forces the individual to fulfill its whole pattern. This demonstrates how much Jung was influenced by this way of biological thinking. Another example can be found in Lorenz (almost the same language which is later used by Jung): "Our cognitive and perceptual categories, given to us prior to individual experience, are adapted to the environment for the same reason that the horse is suited for the planes before the horse is born, and the fin of the fish is adapted for water before the fish hatches from its egg" (Lorenz 1941, p.99; transl. by Eibl-Eibesfeldt).

A climax of the development of evolutionary psychology was reached with the theory of sociobiology (Wilson 1975). In this theory far ranging explanations were given for human behavior stemming from genetic imprints, but from the beginning there was strong criticism against these assumptions:

> "Despite Wilson's grand claims for the new synthesis that would explain human nature, he had little empirical evidence on humans to support his views. The bulk of the scientific evidence came from nonhuman animals, many far removed genetically from humans. most social scientists could not see what fruit flies had to do with people" (Buss 2015, p. 16).

Contemporary accounts in evolutionary psychology take a more careful stance and do not fall into the traps of such far-reaching explanations. And even proponents of an evolutionary psychology/sociobiology approach to human behaviour stress the point that cultural diversity is extremely pronounced in our species (Chapais 2017). Some basics about evolutionary psychology (for details see Buss 2015):

Human behaviour is not genetically determined! Human behaviour cannot occur without two ingredients: evolved adaptations and environmental input that triggers the development and activation of these adaptations. "So notions of genetic determinism - behavior is caused by genes without input or influence from the environment - are simply false. They are in no way implied by evolutionary theory or by evolutionary psychology" (p. 17).

It is a misunderstanding to imply that when evolutionary theory states some human behaviours are influenced by evolutionary developments, they are impervious to change. In contrast, knowledge of our evolved social psychological adaptations, along with the social inputs that activate them, gives us power to alter this social behaviour if we desire to do that.

> "Evolved psychological adaptations along with the social inputs that they were designed to be responsive to, far from dooming us to an unchangeable fate, can have the liberating effect of paving the way for changing behavior" (Buss 2015, p. 17).

> "Because evolutionary change occurs slowly, requiring hundreds or thousands of generations of recurrent selection pressure, existing humans are necessarily designed for the previous environments of which they are a product. Stated differently, we carry around a stone age range in the modern environment." (p. 18) - this is the reason why we will later discuss contemporary insights in paleoanthropology (see chapter "Prehistory").

So what is standard knowledge about evolutionary influenced human behaviours in contemporary evolutionary psychology? In general, evolutionarily shaped behaviours are

usually directed to solve specific problems and are therefore adaptive. The below mentioned insights are the product of systematic testing of evolutionary hypotheses, relying on comparisons of different species, of people in different cultures, of people‘s physiological reactions and brain images, of people with different genes, of males and females within a species, of different individuals and comparing the same individuals in different contexts. It also draws on archaeological record, comparisons with contemporary hunter gatherer societies, observer reports, laboratory experiments etc.

Humans live in groups, have social hierarchies; it is highly important for humans to be and stay member of the social group. Being outcast is one of the great fears of humans. Being member of the group includes the problem of getting ahead, because resources increase as one rises in the hierarchy, and therefore there is competition and the fear of losing status in the group. The evolutionary reasons behind this tendency to live in groups, is the need to hunt large game under Stone Age conditions, which is only possible in groups with cooperation.

Therefore, a genetically based tendency in humans can be found for cooperation and altruism. There are different forms of altruism, but it seems that selective altruism is supported, which is based on the importance of kinship as a predictor of helping behaviour. Kin classification systems seem to be based on a universal grammar that includes genealogical distance, social rank, and group membership resemblance. Also, humans seem to have the biological ability to recognize kinship by association, odour, and facial resemblance. The need to cooperate also explains why humans form families, which is very rare in the animal world and found only among roughly 3% of all mammals. Another quality which belongs to the category of cooperation and altruism is the unique human quality to form long-lasting friendships.

As a consequence of living in groups with up to 150 members (the assumed largest size of human groups under Stone Age conditions) humans have to deal with typical problems of social conflicts which have to be regulated. It is assumed in evolutionary psychology that this is the reason for the development of morale, including the development of emotions like shame and embarrassment. But, more importantly, it serves as an explanation for the development of the large human brain and its high intellectual capabilities. Reason being the social problems involved in living in complex social groups create the need for complex social abilities such as forming coalitions, punishing cheaters, detecting deception, and negotiating complex and changing social hierarchies. The development of theory of mind/mentalization capacity is another product, as it allows for predicting others‘behaviour.

Evolutionary formed habits or behaviour tendencies serve to protect humans against dangers. Therefore, the most common human phobias across all cultures occur towards snakes, spiders, heights, darkness, and strange men, and not other cues, as for example rabbits.

There are also findings about food preferences - in general how to find food which is rich in calories (so therefore also modern humans have a tendency for foods rich in sugar and fat) and how to avoid toxins. These findings are not relevant for the discussion of archetype theory.

Regarding places to live, humans have evolved preferences for landscapes rich in resources and places where one can see without being seen - the so-called savanna hypothesis.

Evolutionary psychology has dealt a lot with sexual behaviour, mating strategies and the respective differences between men and women. The findings speak for certain tendencies in

women: they seem to prefer men with resources, high status and qualities that make them able to produce resources for their family and offspring, but women also look for signs of commitment, for which love is a signal. So in general, women look for resources, commitment and protection, therefore they also look for signs of good health in men, and these qualities signal that the man will be a good provider and a good father.

Men, on the other hand, seem to look for signals of high fertility or reproductive value in women, therefore looking for cues of youth and health, e.g., clear skin, full lips, symmetrical features, facial femininity, etc., which together make what usually is seen as female attractiveness. Also in many countries men value virginity in potential brides, but this preference seems to not be universal, as from an evolutionary point of view sexual fidelity would be a more important quality.

One of the largest differences between men and women in regard to sexuality is the difference in the desire for sexual variety. It has often been argued that the main interest of men would be to spread their sperm, whereas women have a high interest in selecting a long-term partner and testing his qualities before having sex, as their ‚investment' is much higher. But this argumentation neglects the fact that under Stone Age conditions a woman alone would not be able to raise children or to even secure their survival, so for both sexes the most effective strategy, from an evolutionary point of view, would be to cooperate in the care for the offspring. This is in effect empirically supported and explains the cross-cultural support for long-term heterosexual relationships which are also sanctioned by marriage – which is a close to 100% universal.

Beyond the selection strategies reported above, there seem to be only small (and only statistical) differences between the sexes, in contrast to widespread assumptions. Even in the tendency to infidelity, it was found that there are, if at all, only very small differences between the sexes (Conley 2011). Also many of the alleged differences between men and women – women are more talkative, have a higher capacity for empathy etc. – could not be empirically found (Mehl et al. 2007, Meyer 2015). In general, there are no significant differences between men and women in social behaviours (Hyde 2005). Contemporary anthropologists even assume that in prehistoric hunter-gatherer societies women also were hunters and warriors, as can be found in 32 indigenous hunter gatherer societies still existing today (Hill 2011).

In her overview of the neuroscientific research on brain differences between the sexes, Rippon (1990) demonstrates that if there are any differences, they are only small. If a single brain is investigated, it is not possible to tell whether it is male or female. There are mass differences, but it is not clear what that means, if it has consequences for the functionality of the brain, and if so, what kind they are. In general it can be said that the differences between individuals, also within one sex, are larger than between the sexes. The author points out that in the historical beginnings of this kind of comparative research, there was a certain intention to provide scientific evidence for the inferiority of women, which then could serve as a legitimization for the role of women in society. These findings have, of course, far-reaching implications for archetype theory, namely for the concepts of anima and animus.

Since evolutionary psychology assumes that genetically inherited behaviour tendencies aim at solving certain problems and tasks, it was also found that there are universal cognitive abilities in humans: the general abilities to learn, imitate, calculate means ends relationships and infer

causality, compute similarity, form concepts, remember things, and compute representativeness. Humans also have a tendency to make inferences in the sense of forming patterns and structures which serve to reduce complexity. There is also the so-called hyperactive agency detection device, which leads us to infer that unseen forces are human agents, which is seen as a reason for the development of religion (Buss 2015).

Innate mental patterns/abilities

We know today that there actually are innate mental patterns: research on emotions has proved that there are basic emotions that we find in every human infant and which can also be decoded by humans from all cultures (Ekman et.al. 1987); there are innate mental systems for language acquisition (Markmann 1988); and there are primitive perception and behavioural programs, for example face recognition (Knox 2003). There is also evidence from experimental studies that humans all over the world have certain universal connections between colours and emotions, so for example pink with love, green with satisfaction, white with relief etc., but there are also a considerable number of colours for which only culture-specific meanings are attributed.
These are important findings, since they show that Jung was right and the behaviourists of his time were wrong in their assumption that the human infant is a tabula rasa or blank slate. There is no doubt that the tabula rasa hypothesis has to be refuted (Pinker 2002). But are these innate mental capacities the same as archetypes or do they provide evidence that classic archetype theory is right? Even a proponent of such a view of innate mental structures such as Lieberman points out:

> "Imitation is probably the most important mechanism for the transmission of human culture. There is no need to postulate a special purpose innate fork use brain mechanism to account for the way that children learn to use forks … Imitation and a desire to be like others clearly can account for most of the short-term changes in human culture, and perhaps for most of its major achievements." (Liebermann 1993, p. 142)

So, it is necessary to have a closer look and go into the details with these findings.

Which qualities are really innate?

There are a number of human qualities and mental capacities which apparently are rooted in the biological basis and seem to be genetically imprinted (Liebermann 1993). This is the language acquisition device, certain patterns in thought, e.g., hierarchical categorization systems, imitation, and selfless behaviour in the sense that humans tend to cooperate, at least with close relatives. Humans have innate brain mechanisms that facilitate and structure the acquisition of language. This is connected with a critical or sensitive period in life, covering mainly early childhood until the age of about eight years.
Affects/Emotions: Starting already in the 19th century, there was a debate about innate affects or emotions. Darwin (1872) proposed joy, surprise, interest, fear, distress, anger, contempt, and shame. The Jungian author Louis Stewart (1987) created a list very similar to Darwin's (Anger, Sadness, Fear, Shame, Enjoyment, Love, Surprise, and Disgust) which he linked to instinctive, life-preserving responses. Following Darwin, in 1908 William McDougal

published his well-known work 'Social Psychology', in which he focused on the influence of instincts on human personality. This work was known to Jung, and he certainly referred to these thoughts, even though McDougal himself was quite sceptical about the extent of the influence of instincts on human behaviour. He coined the term primary emotion but rejected the idea that there was anything like a religious instinct and various other debatable higher order effective cognitive processes. He included only seven behaviourally well-defined emotional instincts, which he labelled flight, repulsion, curiosity, pugnacity, self abasement, self assertion, and the parental instinct.

Affective Neuroscience: On the background of this historical development of research and theorizing about basic emotions or instinctual patterns given to human beings, the theory of Jaak Panksepp (1998, 2011) has received the greatest attention in the field of the neurosciences and psychology. The theory is extremely well empirically founded. The mainstream in neurosciences agrees with the basic tenets of this approach, which has been called neuroaffective theory or theory of basic emotional systems. Originally Panksepp Identified three such systems, each associated with a corresponding "basic emotional behaviour": desire (seeking), anger (attack), and fear (freezing and flight) (Panksepp *et al.* 1998). He now considers there are seven "basic affective systems": SEEKING (expectancy), FEAR (anxiety), RAGE (anger), LUST (sexual excitement), CARE (nurturance), PANIC/GRIEF (sadness), PLAY (social joy) (Panksepp and Biven 2012 p. xi).

Basic Emotional Systems	Key Brain Areas	Key Neuromodulators
General Pos. Motivation **SEEKING**/ Expectancy System	Nucleus Accumbens – VTA Mesolimbic and mesocortical outputs Lateral hypothalamus – **PAG**	**DA (+)**, glutamate (+), opioids (+), **neurotensin (+)**, **orexin (+)**, Many other neuropeptides
RAGE/ Anger	Medial amygdala to Bed Nucleus of Stria Terminalis (BNST). Medial and perifornical hypothalamic to **PAG**	**Substance P (+)**, Ach (+), glutamate (+)
FEAR/ Anxiety	Central & lateral amygdala to medial hypothalamus and dorsal **PAG**	Glutamate (+), **DBI**, **CRF**, **CCK**, **alpha-MSH**, **NPY**
LUST/ Sexuality	Cortico-medial amygdala, Bed nucleus of stria terminalis (BNST) Preoptic hypothalamus, VMH, **PAG**	Steroids (+), **vasopressin**, & **oxytocin**, **LH-RH**, **CCK**
CARE/ Nurturance	Anterior Cingulate, BNST Preoptic Area, VTA, **PAG**	**oxytocin (+)**, **prolactin (+)** dopamine (+), **opioids (+/-)**
PANIC/ Separation	Anterior Cingulate, BNST & Preoptic Area Dorsomedial Thalamus, **PAG**	**opioids (-)**, **oxytocin (-)** **prolactin (-)**, **CRF (+)** glutamate (+)
PLAY/ Joy	Dorso-medial diencephalon Parafascicular Area, **PAG**	**opioids (+/-)**, glutamate (+) Ach (+), **cannabinoids**, TRH?

Table 1: Panksepp's basic emotional systems (Panksepp 2011, p. 1795)

> "There are several principles basic to understanding the seven brain systems: 1) these emotion systems are subcortical networks and lower brain regions have evolutionary primacy in generating these basic emotions and their affects, while learning and higher brain functions can be deemed to be secondary and tertiary processes. 2) to the best of our knowledge, these emotion systems, situated in ancient brain regions, are largely homologous in all mammals. 3) these basic emotions also have similar chemistries in all mammals. 4) these brain systems generate instinctual behavioural responses that are closely linked to the raw, primal affects that accompany those responses. 5) the integrity of the seven systems is demonstrated by the ability to elicit coherent specific emotional responses

> and/or the associated affects with localized brain stimulation - as evaluated by the capacity of the subcortical arousals to mediate reward and punishment functions that control learning. 6) lastly, the systems remain relatively unscathed in animals whose neo-cortices were surgically removed in early development. .. In summary, emotional responses from each of the primary process emotions can be activated by localized subcortical ESB or chemical brain stimulation. That decortication of young animals generally leaves the expression of these emotions intact, further reinforces the subcortical nature of these emotion systems." (Davis & Panksepp, 2011, p. 1948)

This means that these basic emotion systems are inherited, they work on a subcortical, that is automatic level, they closely connect the activation of certain emotions with trigger stimuli (such as being attacked by a carnivore), and the emotions then activate fixed behaviour patterns, such as flight or freeze. These basic emotion systems form closed neurological and biochemical circuits in the brain, they are hardwired, and work with specific neurotransmitters and hormones, and they are therefore not to be influenced by experience or learning processes. It has to be noted that these basic emotion systems are only activated in existential situations, such as life threatening events, and they then switch off the functioning of higher order mental processes, as for example those located in the prefrontal cortex. Once activated, they are very difficult to be modulated or influenced by the person. These basic emotion systems are in a certain sense lifesavers, and are therefore only activated in very extreme situations. In the course of psychological development of the person it is only possible to raise the threshold for the activation of these basic systems, for example a person can raise the threshold for the activation of existential fear and flight impulses.

It is also important to note that in the human brain bottom-up and top-down processes are differentiated which are connected via regulatory systems: Neuropsychological systems such as Panksepp's basic systems are called bottom-up processes in cognitive neurosciences; in humans they are regulated and modulated by top-down mechanisms, e.g. controlled by the prefrontal cortex, up to the point that they can be totally inhibited; these regulatory mechanisms are fully dependent on one's individual history of experiences, first of all in primary caregiver relationships.

It also has to be noted that the findings around these basic emotion systems clearly show that, in contrast to Jung's thoughts, the genetic information does not directly activate behaviour patterns, but it activates an affect/emotion, which is consciously experienced and then initiates actions. So there is no direct path from genes to behaviour, at least when it comes to the basic emotion systems discussed here, but the path goes from genes via emotions to behaviour. So even if affective neuroscience has found genetically fixated patterns, they do not encode directly behaviour, but only emotions. The fixated patterns also do not react to trigger stimuli, as instinctual behaviour in animals does - for example birds feed their young automatically when they are confronted with their wide open mouths and certain acoustic signals. They do not reflect on whether they want to feed them or whether they are their own offspring or not etc. This is the reason why the cuckoo can lay his egg in the nest of other birds and can rely on the fixated pattern which will cause the bird parents to feed this foreign chick. In contrast to such an instinctual pattern, the basic emotion systems described here in humans create existential needs which are activated via emotions and lead to typical behaviour directed mostly towards the caregivers.

These insights of affective neuroscience have well been confirmed by a number of leading neuroscientists such as Damasio (2011) and LeDoux (2012), and also by the neuropsychoanalyst Mark Solms (2015, 2016), who has also contributed significantly to a better understanding of psychoanalytic concepts in the light of neuroscientific research, namely the relationship between consciousness and the unconscious. The findings of affective neuroscience had the interesting result that the development of consciousness had to be thoroughly reconceptualized:

> "It became increasingly clear, … that most primary affects, at least in raw unconditioned form - whether they be homeostatic (e.g. hunger and thirst), sensory (e.g. pain and disgust) or emotional (e.g. fear and attachment) - are neurologically constituted at the level of subcortical brain regions, and not cortical ones. It became equally clear that the mechanisms for affect were largely confluent with those for consciousness as a whole. This applies to all mammals, including humans. … It is here, we have suggested, where affective consciousness - the core valenced states of mind - first emerged as a unified emotional behavioural and affective evaluative process in evolution. This contrasts with traditional wisdom - actually prejudice - that the subcortical ream in isolation is unconscious. That is conventional, but in our opinion not consistent with the evidence […]" (Panksepp et al. 2017, p. 188/89)

This has an interesting consequence that, contrary to Jung, consciousness is developmentally primary, not the unconscious. So the general idea of Jung's, which is constitutive for his whole psychological theory and also the theory of archetypes, that the unconscious is primary and consciousness slowly develops out of ‚an ocean of unconscious' has to be refuted on the background of these neuroscientific findings.

It is very important to note that the basic emotion systems are not influenced by psychological development over the course of life, and that they do not provide the foundation for higher order processes. In contrast, these secondary processes develop independently from the primary basic emotion systems and are definitely not inherited (Panksepp et al. 2017). So, if one wanted to argue that Panksepp's neuroaffective systems are a modern conception of what Jung called archetypes[9], this parallel has to be regarded as illegitimate. The basic

[9] The following is a contribution from the survey: "The affective and motivational part of the archetype is grounded on the neuroscientific view of the American neuroscientist and psycho-biologist Jaak Panksepp. Based on broad research with mammals, he proposes circuits of universal basic emotional and motivational systems as evolutionary memories that are genetically ingrained and working on a primary-process level (Panksepp, 2010). These basic emotional networks can be defined by characteristic affective, behavioural-instinctual action patterns. Each of these systems produce visceral responses of the body, and change sensory, perceptual, and cognitive processing (Panksepp, 1998). With maturation, higher brain mechanisms as thoughts, and more mature emotions come into view to regulate emotional arousals. Seven primal emotional circuits have been identified up to now by Panksepp (1998, 2012). Four positive emotions positive emotional circuitries (SEEKING, LUST, CARE, PLAY) and three negative emotional circuitries (FEAR, RAGE/ANGER and SADNESS/GRIEF) that are host in the deep subcortical reptilian brain, and in subcortical limbic brain (The neo-mammalian brain is the place of the cortical thinking, ego-unctions, the self-reflexion etc. that inhibit, regulate, and modify subcortical emotional powers). … In my view the affective-motivational systems are engraved, whereas the cultural forms and patterns are passed from culture to culture. Different information is processed into similar psychological concepts as a quality of self-organizing systems. The result of the self-organization of the brain finds expression in various forms of culture … The epigenetic mechanisms are still not well understood; however, it is my best guess, that interactions in families, socialization, culture, and environment form unconscious symbolization and shape the psychocultural content of the archetype. It arises in moments of transitional periods, crisis, and life- changing moments, insofar as affective systems according to Panksepp are emerging, embedded in these cultural forms. The archetypes have then an ordering power, according the concept of self-regulation, and the intentional goal-oriented patterns of the psyche."

emotion systems are neither connected with images or narratives, nor do they form connections with higher order processes, such as cultural expressions, as has been argued by Jung regarding archetypes:

> "*I have long thought that, if there is any analogy between psychic and physiological processes, the organizing system of the brain must lie subcortically on the brainstem. This conjecture arose out of considering the psychology of an archetype, the Self, of central importance and universal distribution represented in mandala symbols. … The reason that led me to conjecture a localization of a physiological basis for this archetype in the brainstem was the psychological fact that besides being specifically characterized by the ordering and orienting role, its uniting properties are predominantly affective. I would conjecture that such a subcortical system might somehow reflect characteristics of the archetype or form of the unconscious." (Jung CW 3, para. 582)*
>
> *And: "The psyche of the child [is] equipped with all specifically human instincts, as well as with the a priori foundations of the higher functions." (CW 9/I, p. 348)*

Also, the basic emotion systems form very primitive behaviour patterns, which are very clearly defined (e.g., flight or freeze) and thus have nothing to do with what Jung described as archetypes. In animal experiments it is actually possible to sever the connection between the cortex and neocortical higher functions - in the sense of learned behaviours - from the subcortical structures, and the animal will still be able to survive based on its basic emotion systems. These experiments, though horrible, clearly demonstrate that there is no connection between inherited (instinctual) behaviour patterns and the higher cortical structures which develop during psychological development. And this makes sense, from an evolutionary point of view, as these basic emotion systems and inherited behaviour patterns have evolved because they secure the survival of the animal/person, and therefore to remain unchanged, by experience and by reflection. They have developed into fixated patterns and are transmitted genetically in this fixated form, because they are emergency programs on which the survival relies.

> "In this context, it is again important to consider that much of the massive neocortical expansions since human divergence from greater apes was substantially controlled by a single gene variant, ARHGAP 11 B. We think such findings provide little leeway for robust and specific genetic control of various high-end neocortical primary sensory and affective functions […]" (Panksepp et al. 2017, p. 199)

These findings are a massive blow against classical Jungian theory, as they imply that, as far as there are patterns which could be called instinctual in humans in the sense of the above-mentioned primary emotion systems, these exist independently from all higher cognitive processes, and the latter are totally dependent on experience and learning. It also has to be noted that Panksepp's use of the term "instinctual" for these mechanisms is highly controversial in the neurosciences. The majority of authors active in this field do not follow this definition, e.g., Mark Solms. So, Jung's conception of basic patterns which then evolve into individual representations, images, narratives etc. in the course of life – as is suggested in the following quote - has to be refuted.

> *"Among the psychological factors in determining human behaviour, the instincts are the chief motivating forces of psychic events. … If we look upon the appearance of the psyche as a relatively recent event in evolutionary history, and assume that the psychic function is a phenomenon accompanying a nervous system which in some way or another has become centralized, then it would*

be difficult to believe that the instincts were originally psychic in nature. And since the connection of the psyche with the brain is a more probable conjecture than the psychic nature of life in general, I regard the characteristic compulsiveness of the instinct as an ectopsychic factor. Nonetheless, it is psychologically important because it leads to the formation of structures or patterns which may be regarded as determinants of the human behaviour. .. The immediate determining factor is not the .. instinct but the structure resulting from the interaction of instinct and the psychic situation of the moment. The determining factor would thus be a modified instinct. The change undergone by the instinct is as significant as the difference between the colour we see and the objective wavelength producing it. Instinct … would play the role of a stimulus merely, while instinct as a psychic phenomenon would be an assimilation of this stimulus to a pre-existing pattern. A name is needed for this process. I should term it psychicization." (Jung CW 8, para 234)

This quote clearly demonstrates that Jung's general idea is that the instincts, as originally physiological processes, are connected with higher order psychological processes and thus become part of the psyche as stimulating factors.

In contrast, these higher order processes are actually activated by just a single gene (Panksepp et al. 2017, p. 199). We also know from neuroscientific research that in the first months of life in the infant brain a large number of synapses is built, so that at eight months of age the human brain has the highest density of synaptic connections ever in life. Thereafter, only those synapses remain which are used and thus strengthened, the others vanish: the rule is "use it or lose it". It seems that the massive growth of synaptic connections in the first year of life is activated by only the single gene mentioned above. **This implies that there is no genetically encoded specificity in the sense of content regarding cortical structures.**

On the other hand, these findings demonstrate that consciousness and subjectivity, on a basic level, are primary, and in so far as they are rooted in affects which are inherited. There actually is an innate base for consciousness and subjectivity. This has a funny consequence that, as Solms and Panksepp (2012) point out, the ‚Id' (das Es) is conscious. It should be noted that this basic consciousness and subjectivity has no connection to what, over the life course, evolves into a sense of self, in the sense of memorized experiences etc.

Nevertheless, psychologists have used the findings of affective neuroscience to support Jung's ideas of archetypes (Alcaro et al. 2017). This is a good example of the misinterpretations which arise from the unclarified definitions of archetypes. One can only argue in the form of the paper just mentioned, if one automatically equates innate mechanisms with archetypes.

Attachment theory and research

The vast body of findings that have been produced by attachment research, strongly supports the hypothesis of universality of the attachment needs and patterns. In every study in European and Western, as well as non-European countries, children were observed to show attachment behaviour in stressful circumstances, and to have a preferential bond with one or more caregivers:

> "The cross-cultural studies included here support both of these ideas that attachment is indeed a universal phenomenon, and an evolutionary explanation seems to be warranted. Although in many cultures children grow up with a network of attachment figures, the parent or caregiver who takes responsibility for the care of a child during part of the day or the night becomes the favourite target of infant attachment behaviours. Not only the attachment phenomenon itself, but also the different types of attachment, appeared to be present in various Western and non-Western cultures. Avoidant,

> secure, and resistant attachments have been observed in the African, East Asian, and Latin American studies, and samples ranging from hunter gatherer societies characterized by high levels of alloparenting to affluent and deprived urban contexts. Even in the extremely diverging child-rearing contexts of the Israeli Kibbutzim with out of home sleep at night, the differentiation between secure and insecure attachment could be made. These results do not, however, preclude culture specific patterns. Several studies have noted the attachment to multiple caregivers, and the identity of those caregivers depends on the specific caregiving arrangements that are common in a given cultural context. For instance, infant secure attachment was found in relation to not only the infant's mother but also nonmarital caregivers. In addition, infants' ways of expressing attachment and exploration behaviours have been found to vary depending on cultural norms and customs." (Mesman et al. 2018, p. 866)

The findings of attachment research also support other hypotheses of universality: the normativity hypothesis states that the distribution of attachment patterns (e.g., secure versus insecure) is more or less equal cross-culturally, which could be clearly empirically supported (Cassidy & Shaver 2019; see figure in the attachments). This demonstrates that secure attachment, and also insecure patterns, are not an invention of Western societies. Furthermore, insecure patterns are not only related to so-called civilized cultures, which means that insecure patterns can also be found in so-called primitive societies. These are often thought to be closer to nature. Also, the sensitivity hypothesis could be supported, which argues that the differences in attachment security are related to the sensitivity of the caregivers in responding to the needs of the child. This again, of course, supports the general notion that the formation of the personality is by no means genetically determined, but the result of experiences especially in the interaction with caregivers (Rothbaum et al. 2000).

Attachment and Evolution: Environment of evolutionary adaptedness (EEA)

> "For most of our evolutionary history, humans were hunters and gatherers who lived in small, cooperative groups. Most people within a tribe were biologically related to one another, and strangers were encountered rather infrequently, mainly during intertribal trading, social contact, or war. Though people occasionally migrated in and out of their natal groups, most remained in the same tribe their entire lives. Men and women formed long-term care bonds, but serial monogamy was probably most common. Children were born approximately four years apart and were raised with considerable help from extended family and perhaps even non-kin; few children were raised exclusively by their biological parents. Humans, in fact, were probably cooperative breeders who shared childrearing with their kin [see also Hrdy 2009; CR]. Younger children most likely spent considerable time being socialized by older children if they survived premature death, especially during the first five years of life. .. Participation in the daily functioning of small, cooperative groups may in fact have been the predominant survival strategy of early humans. These likely features of the social EEA must be considered when conceptualizing attachment theory within an evolutionary framework." (Simpson & Belsky 2018, 96)

A large body of evidence supports this model. Following this model, the main evolutionary function of early social experience, is to prepare children for the social environments they are likely to encounter during the lifetime. With this background, it also can be assumed that the mating model of long-term pair bonds seems to be the most reasonable, since it provides the highest probability for the offspring to survive under these harsh conditions; also it is probably the most suitable environment for the development of complex social competencies. On the other hand, this implies that the quality of the environment early in life can exert long-lasting

effects on psychosocial development, including social competency and the development of specific mating and parenting strategies in both males and females.
Human infants would not be able to survive without the care of a more experienced adult who is able to regulate their basic physiological needs as well as their stress levels, because young infants cannot take care of these basic physiological and psychological needs by themselves. The early environment of evolutionary adaptiveness among humans, required the basic ability to become emotionally attached in order to survive and enhance inclusive fitness. Since the environment of humans consists mainly of situations with a high need of cooperation and complex social interaction, these are the competencies which human children must be prepared for. **Thus, the evolutionary adaptiveness of humans involves the acquisition of complex social and interactive competencies, which is only possible through experiences in a social network itself, it cannot be pre-formed by genes. The genetic makeup only prepares the infant to be highly sensitive for social interaction.**
On the other hand, depending on the quality of these early social interactions provided mainly by the caregivers, …

> "Infants differ rather drastically in the quality of their attachment relationships, and attachment theory hypothesizes that this attachment performance is largely, albeit not exclusively, environmentally determined. Differences in attachment behaviours and relationships emerge in the course of the first few years of life as a consequence of childrearing experiences with parents and other caregivers. Infants may develop secure or insecure attachments in response to a more or less sensitive or predictable social environment. The parallel to language development is useful here. Every child is born with the capacity to learn a language, but the specific language environment determines the kind of language to be learned." (Bakermans-Kranenburg & van Ijzendoorn 2018, p. 155)

So, the general rule is that young children's attachment security is not heritable (ibd.)
The findings of attachment research also point to the fact that the development of the self of human beings is almost exclusively based on interpersonal processes. The new-born infant has just some basic abilities to draw the caregiver into a form of interaction, e.g., by imitating the face expression, or giving other signals which are then interpreted by the caregiver as an initiative to communication. But on the one hand, a development starting from these fundamental initiatives will only take place as long as there is a caregiver who is aware of the signals and responds to them in a sensitive way. If this happens, the child can increasingly rely on the presence of the caregiver and use the adult person to regulate its needs and emotions. The way in which the adult caregiver responds, e.g., sensitive or not, will determine the internalized representations of these interactions (Daniel Stern: representations of interactions generalized). So, the self which is formed in such processes is constituted by interpersonal processes, by interactions. There is no way how the child could develop his/herself individually and independently. Even when children have formed an early form of the self, they still apply what is called social referencing: when confronted with a new experience, the first thing they do is to look on the face of the caregiver for signs of how to interpret this experience. These ideas have been put together in the theory of the social brain (Pfaff 2013), which basically points out that the brain of humans is largely a social construction. This is, by the way, also an argument against the classic conceptions of evolutionary psychology in the sense of Dawkins or Wilson, who argued for a basic egoism in humans.

The dialogical self – Jung and Buber

The general idea of this interpersonal process which shapes the self, can, in an early form, be found in the works of Martin Buber. Interestingly, when Martin Buber was invited by one of the members of the Psychological Club in Zürich in the 1920s, Jung attempted to keep the other members of the club from attending this lecture and did not take the opportunity to have a dialogue with Buber (Bair 2003). It could be interpreted that Jung somehow felt Buber's conception to be absolutely contrary to his own, as he proposed an individualistic view of development, whereas Buber strengthened an interpersonal view. The individualistic view on development Jung shared with one of his Swiss compatriots, Jean Piaget, who designed his theory of cognitive development in a very similar way, as if the child investigated its environment all on its own - a view which was strongly criticized later in the course of developmental psychology.

The Social Brain: Cooperation and Reciprocal Altruism

As we have seen above, the environment of evolutionary adaptedness of human beings is that of a group of humans who form close social/interpersonal relationships and who cooperate for hunting and gathering, but also for childrearing. The high quality of cooperation in human beings was apparently a strong advantage under Stone Age conditions for more effective hunting, and thus provided a selection preference. We can also assume that in these early human groups the described individuals were preferred and had a selectional advantage. Concerned are persons who were reliable in cooperation, who applied fairness when it came to the sharing of hunting game, who could coordinate well in shared activities etc. This is the reason why, as evolutionary anthropologists argue (Tomasello 2021, de Waal 2019), a genetic makeup, which prepared well for these complex forms of cooperation, sociality and complex communication, was selected in human evolution.

Evidence exists that in humans there is an inborn tendency/preparedness for cooperativeness towards other human beings. This has been demonstrated by empirical research, mainly through the studies of Michael Tomasello (2021), president of the department for comparative and developmental psychology at the Max-Planck-Institute for evolutionary anthropology in Leipzig for 20 years. It can be demonstrated that already infants in their first year of age show cooperation and altruism in the sense of supporting others without being asked for it, and that this is not a result of socialization. The evolutionary basis for this behaviour is the need, under Stone Age conditions, for human communities to cooperate and support each other in order to survive as a group. This inborn tendency to cooperate contains several basic elements: human infants from the first days after birth have the ability to imitate face expressions of their caregivers and thus go into resonance with them. They can do so due to the existence of mirror neurons - therefore it can be said that the human infant is preformed for interpersonal resonance (Bauer 2019). Human infants have the ability to create what is called the referential triangle, meaning they are able to cause another person, e.g., the caregiver, to focus on a third object together with the infant themself. They can do so by using eye contact, pointing at things, and later by talking. This shared focus, of course, enables cooperation and reciprocal support (Tomasello 2021). In contrast, primates like chimps do not

have this ability (de Waal 2019). Another area which is, of course, fundamental to cooperation and reciprocal support, is the ability for language. At the age of three years there is another achievement in children, as they now are able to understand that they are members of a group, e.g., a family. To be a member of the group or family is one of the basic needs of humans. Children at this age start to focus on the rules that are shared in the group and tend to correct other children when they do not obey to the rules. Especially children, but also adults in human groups have a very strong tendency to conformity, to be a respected and accepted member of a group and to understand and follow its rules. Already at the age of five years children have a sense of fairness, solidarity and identify with others. At the age of seven or eight, in traditional cultures, children usually start to take over tasks for the group, e.g., watch over a herd of sheep (Tomasello 2021).
This line of studies does not deny that there is also a certain amount of egoism within humans. But in this tradition of research, it has been pointed out that the strong egoism we have in modern, especially Western societies, which has led to the formation of capitalism and free welfare, seems to be a product of the Neolithic age, in which agriculture, trade, civilization, settlements and the ownership of land and other goods started. Anthropologists, who first came into contact with traditional peoples, usually report that they were welcomed very friendly and received support, even without having asked for it (Hrdy 2009). Even in civilized cultures all over the world hospitality is one of the highest values.

Transactional causality: How culture impacts evolution

We have already seen above that the genetic code in the sense of the human genome alone does not determine processes of gene expression, but that these processes are modulated by epigenetic factors. Tomasello (2021) adds a further perspective on these processes: not only is the expression of genes influenced by epigenetic factors, and thus is activated through environmental factors, but also the timing of these epigenetic influences plays a crucial role since they can cause very different sequences of the expression of whole sets of genes. The sequence, in which such genes are activated, can make large differences in the phenotypic effects. Now Tomasello argues that, as has been demonstrated above, the genetic makeup of infants prepares them in different ways for complex social interactions, for being interested in other human beings, for being able to understand emotional signals in the face, to give signals themselves etc., but this is only the beginning. It needs a highly competent social other on the other end to react to these initiatives. And it is not only the presence of a competent social other but also the fact that human infants are born into a culture, a complex sociocultural context. Tomasello argues that cultures and sociocultural institutions are designed to come into play at crucial points in the development of a human child, to activate specific genetically preformed social competencies which would not develop (or not in such a complex way) if there were no culture. And because in an earlier stage of development specific capacities have already developed (e.g., communication by language, because there is a caregiver present to talk to the child), the human child is capable of developing further competencies in the course of ontogeny. The reason being that on a later stage specific cultural conditions activate these preformed capacities. So, for example, in the first three

years of life human children usually develop interpersonal, social and communicative competencies in a dyadic interaction with their primary caregivers. Based on this development as well as on processes of maturation of the organism, with three years of age they become capable of forming social relationships with other children of their age in groups. They built the competency to coordinate with others in play etc. (therefore, at this age we usually send children to kindergarten). This is called transactional causality: capacities, which evolve through maturation, provide the foundation for new forms of experiences and learning, and subsequently these learning experiences are the direct cause for further development. Human cultures have evolved to optimally support this process.

So Tomasello, referring to the work of Vygotsky, argues that human culture and the human genome closely interact in ontogenesis to form the unique human capacities of sociocultural cooperation. Human cognitive and social ontogenesis depends on these transactions between the individual and its surrounding rich cultural ecology. This transactional model has also been called the theory of developmental systems or evolutionary developmental psychology. This transactional approach is in sharp contrast to viewpoints which could be called nativist – among them Jung's - which argue that certain abilities are solely inborn (which could also be called a too simple nativism). The transactional approach presented here, in contrast, assumes that there are only genetically pre-formed behaviour tendencies which, in a certain way, 'presuppose' the existence of certain cultural institutions (e.g., schools for teaching) which then activate a sequence of social and cognitive developments.

This is based on the unique human capacity to form a ‚We', a shared actor with shared intentions, knowledge and sociocultural values. These processes, vice versa, have influenced the evolution of mankind. Because early human groups, under Stone Age conditions, were more successful when they could cooperate in complex ways, the need to prolong the period in of children's education arose. Henceforth, instruction and teaching were invented, leading to the formation of a human culture in which parents provide food and information far into adolescence, enabling children to acquire huge amounts of cultural information. All of the above-mentioned genetically preformed abilities for cooperation, understanding and sharing intentionality, altruism etc. are directed towards making the development of a shared intentionality on the base of cooperative activity possible. This includes the ability to take the perspective of others, to view the same thing from different perspectives, to exchange information via signals, to think about the future in the sense of making plans for cooperative action, to help others so as to make sure that they are in good shape when their cooperation is needed, to develop a sense of fairness, to take over a role in a play in the sense of taking a position in a coordinated action (e.g. hunting), and to understand the inner world of others in the sense of empathy and mentalization. Consequently, groups consisting of such individuals form conventions over time, in the sense of systems of rules (e.g., for how the hunting game is shared), they form shared systems of symbols for exchange, and hierarchies in the sense of systems of different positions/status in coordinated action (e.g., chief -follower) - to put it simply: culture. On the other hand, being a member of such a group/society/culture makes it necessary to understand and adopt the system of rules of this group in the course of development. Therefore, it was a selection advantage for children to be able to imitate elders,

to take up instruction and teaching, and to have a tendency to conform with the rules and values of one‘s group for building a sort of group identity.
By the way, this approach also explains why in human groups only about 50% of the caregiving for children is performed by their own mothers. This is due to the fact that they are cared for by a whole group of adults – called cooperative breeding (Hrdy 2009) - providing a unique environment for the development of complex social cognition, as the children have to adapt to different other human beings and understand different states of mind etc.
This viewpoint is also supported by empirical findings, which show that in contrast to other mammals, also primates, the human infant‘s brain has just 20% of the weight of an adult brain. This exemplifies that the brain substance of an adult human being is formed by experiences and the information taken up during socialization and culturalization. The comparably slow growth of the human brain during childhood and adolescence is an adaptation to the culturized way of living of human beings, implying that humans have to acquire a huge amount of competencies and knowledge to become a full grown member of their kind.

Polyvagal theory

Another interesting finding is that this sharing of experiences and viewpoints, by taking the perspective of the other, as a result equalizes the inner states of the individuals involved. This again supports the development of attachment relationships. In contrast to reptiles, for example, mammals evolve auditory systems that enable them to respond to airborne acoustic signals, an important requisite for increasingly complex modes of social interaction. The result was the emergence of a capability for a dynamic social engagement system with social communication features: head movements, production of vocalizations, hearing and understanding vocal communication. Human babies, already in the first weeks of their life, have a tendency to smile at the face of any other human being (which even primates do not do). This usually has the consequence of instigating an interaction, drawing the adult into a social relationship with the baby.
Humans share with other mammals an evolutionary development which resulted in a face-heart connection, in which the striated muscles of the face and head were regulated in the same brainstem areas that evoked the calming influence of the myelinated Vagus. In effect, meeting others does not automatically activate defensive mechanisms, but in contrast creates a need for being close to others of the same kind, having a calming effect. These evolutionary developments provided setting conditions under which social behaviours could have a significant impact on cognition and health. In the human nervous system specific features of person-to-person interactions are innate triggers of adaptive biobehavioural systems, which in turn can support health and healing (Cozolino 2006).

Biocultural theory

In Jung‘s model there is a basic misconception about the role of genes in development. To put it simply, Jung assumes that in the genetic code, the archetypal structure (in the sense of the matrix of the crystal) is already defined and leads directly to behaviour, by organizing

perception into certain images, a tendency to be prepared for certain behaviours etc. So, the general idea is that genetics provide similarity. Based on contemporary insight in genetics, it can be said that also the opposite may take place. This has to do with the fact that in humans, as well as in almost every species, for some genes there exist a number of different variants. An example from mating behaviour:

The tendency to cheat on the partner within romantic relationships, by having an affair, actually seems to be dependent on certain gene variants, meaning there is a certain hereditary factor. In a study conducted in Finland (Zietsch et al. 2015) it was found that there are considerable differences in the tendency to commit adultery. These differences showed connections to hereditary factors in the family of origin. The interesting point was that there was not a significant difference between the sexes, but within each of the sexes. This tendency is called polyamorous or socio-sexuality. So, the genome in this case is not responsible for creating similarity in human beings, but for creating considerably sharp differences.

The same was found for the tendency to be a good father, respectively mother. In both sexes there are two different hereditary phenotypes, which are responsible for a tendency to take over responsibility for the offspring or not (Wlodarski et al. 2015).

Another important finding is that the heredity of a genetic trait is not automatically given but is dependent on the quality of the environment. In environments that are poor in resources without much space for individual freedom, different genetic predispositions cannot produce such strong effects in the phenotype, compared to open societies with a variety of behavioural options (Charmantier & Garant, 2005; Guo & Stearns, 2002). This means that cultural environment and genetic variations interact with each other. As an example the development of different phenotypes of styles of seeking sexual contacts: in modernized, liberal societies, different genetic variants have more opportunity to express and produce individual differences in sexual orientation. This is called biocultural interplay of genetic variation and cultural environment.

So the attempt by the protagonists of socio-biology, e.g., Edward Wilson (1975) or Richard Dawkins, to subsume sociology and psychology under the natural sciences and namely biology, has to be regarded as failed (Richter 2005). Interestingly, Dawkins (1976) in his later publications points out that human behaviour cannot be seen as genetically determined and introduced the term ‚meme', the cultural equivalent of the gene. This concept was further expanded by the British psychologist Susan Blackmore (1999); it is defined as the smallest unit of cultural information capable of being replicated and passed on to subsequent generations. For these processes, of course, language and the capacity to symbolize is crucial. But, there are also limitations to this concept in its attempt to draw parallels between Darwin's evolutionary laws of natural selection and the field of culture and psychology:

> "Evolutionary geneticists have known for many years that natural selection works only if there is a low rate of mutation. For Blackmore to apply Darwin's laws of natural selection to the cultural and psychological means that the duplication must have a high degree of fidelity, i.e. the quality of the copying and transmission must be extremely good. Just here the problem arises: memes appeared to have a low degree of fidelity. When memes are transmitted there is considerably more noise (mutation) as is found in the process of genetic transmission. Consider, for a moment, the process by which the child imitates and interjects the parent. The child's psychic image of the parent (a meme, in Blackmore's theory) is not an exact replication of the actual parent. … Language acquisition with its capacity to produce and reproduce information is an essential factor in the evolution of modern

humans. Our evolution differs from other species because it has been dependent on two lines of transmission of species to specific information, not one. Once the capacity for symbolic representation develops, first through images and then through words, there is introduced into the evolutionary process a new means for disseminating intergenerational information." (Kugler , p. 273; see also below the discussion about Dual Inheritance Theory in the section on anthropology)

The example of mating behaviour/couple bonding

Müller-Schneider (2019) presents a detailed account of bio-cultural theory, in his attempt to understand the interplay of the biological basis for human mating behaviour and the social forms that we can find in postmodern society, in the sense of different models of romantic relationships. He starts from the interesting observation that, even though postmodern societies have a maximum of personal freedom and unfolding of the individuality, the large majority (in a number of studies even more than 90%) seek a monogamous, long-term couple relationship based on love, exclusivity and reciprocal fidelity.

Müller-Schneider (2019) compiles very convincing evidence by summarizing findings and insights from several disciplines (anthropology, human genetics, behavioural biology etc.) that there seems to be a biological basis for human mating behaviour and couple-bonding. In general, it can be said that humans have a predisposition to form long-lasting monogamous couple relationships. In evolutionary biology the ultimate reasons for this form of couple bonding have been intensely discussed. Tt was found that long-lasting couple bonding is a necessity to form the basis for parental co-operation to secure the survival and the re-productivity of the offspring. The human infant is born in an extremely immature and therefore vulnerable and dependent state, which makes it necessary for the mother – and other caregivers – to care for the child for many years. This immature state is, on the other hand, necessary so that the infant can develop differentiated social capacities for interaction and cooperation, which are the crucial advantage of the human species. But under Stone Age conditions the mother alone would not be able to provide this care for several years, so there is a necessity to include the father (and all the other group members) into a stable system of childcare.

So, in contrast to prevalent prejudices in modern societies, it was found in ethnographic studies that in hunter gatherer societies, usually the fathers and in general the men of the group are incorporated into a shared system of childcare (Chapais 2011). In some cases, even a larger amount of childcare is provided by the fathers/men in the group, and in these cases even hunting is conducted by the women, along with gathering fruit etc. Another theory, resulting from these studies and findings, argues that with the development of arms, male competition for women would have resulted in devastating fights and loss of human lives, which would then have weakened human societies. Therefore, stable couple bonding was supported in the evolution of human societies (see also the 10 Commandments in the Old Testament). This is as much a cultural achievement as it is based in biology.

This demonstrates that, on a very basic level, there seems to be a biological basis of human couple bonding. However, it goes alongside social developments that human groups and societies must deal with certain social problems and find similar solutions to these problems. So, regarding the question what is archetypal, here it can be said that the prevalence of monogamous marriages is a result of a combination of biological and social processes. On the other hand, there is solid evidence that love and jealousy are clearly biologically determined (Müller-Schneider 2019).

The human capacity to form culture is part of the genome, but in effect it forms the secondary system of heredity. This system is organized as collective knowledge or memory, but in contrast to Jung's theory it is not based in the biology/genome. It is memorized in symbolic form and transmitted from generation to generation as knowledge in the form of language. This capacity to symbolize, and to transmit knowledge in the form of language has contributed to an enormous rise in adaptability. It is no doubt that there is something like a genetically imprinted, biological deep structure of human beings - in short: human nature. But this is not to be confused with a reductionist understanding, in the sense of that human behaviour is directly genetically imprinted. Human nature means there are species specific innate tendencies, e.g., the human tendency to cooperate.

The evolutionary development of mankind in contemporary models and theories is seen as a co-evolution of genes and culture (Pinker 2010). In this sense, development is not a one-way street. This has to do with the extremely high plasticity of the brain which responds to experiences, in the sense that certain experiences especially in early socialization act as feedback for the expression of certain genes. Some genes even need certain experiences, in the form of cues from the environment, to be activated. It also has to be noted that there are large differences between different parts of the genome, insofar as some are extremely plastic and respond to environmental cues, whereas others follow genetically highly structured synaptic arrangements (e.g. Panksepp's neuroaffective systems). But in general, it can be said that all structures that are connected with meaning or produce meaning or are experienced as meaningful are the product of experience, socialization and therefore come from outside, from experience, socialization and enculturalization, not from the genome.

This line of theorizing is very clear in pointing out that there are no such things as instincts in human behaviour, those entities which are genetically based are on the level of motivations. So, for example there is the basic human need or motivation for finding a mate. How to do that, in which contexts, etc. is prescribed in social scripts.

At the core of all human motivations there is the need to receive interpersonal acceptance, appreciation and care. In this sense, at the core of human nature is the tendency to social resonance and cooperation. Humans receive direction in regard to these motivations from their emotions. So, in general it can be said that even if there is a genetic predisposition for certain motivations, genes do never directly activate certain behaviours, but only via the activation of emotions, which serve as signals for different aims or dangers. These emotions in turn activate certain behaviours.

The self is relational: relationship is primary, not the individual

So it becomes more and more clear that the genetic makeup of humans is oriented towards interaction with other human beings and sociality. Even Charles Darwin, the founder of evolutionist theory, was aware of this:

> "It has often been assumed that animals were in the first place rendered social, and that they feel as a consequence uncomfortable when separated from each other, and comfortable whilst together, but it is a more probable view that these sensations were first developed in order that those animals which would profit by living in society, should be induced to live together, … For with those animals which

> were benefited by living in close association, the individuals which took the greatest pleasure in society would best escape various dangers; whilst those that cared least for their comrades and lived solitary would perish in great numbers.“ (Darwin 1871, page 80)

The most elaborate concept and theory resulting from these considerations is attachment theory and attachment research. The findings reported above, which were conceptualized into the transactional approach, have also influenced other theoretical approaches, as for example what has been called the ‚Social embedded brain‘ (Northoff 2015) and Cultural Neuroscience: CN is an interdisciplinary field that investigates the relationship between culture (e.g., value and belief systems and practices shared by groups) and human brain functions and aims at elucidating the intrinsically biosocial nature of the functional organization of the human brain. (Shihuihan, Northoff et al. 2012).

From these insights, in psychoanalysis the relational and intersubjective schools have developed, which are based on the infant research conducted by the Boston Process of Change Study Group, with concepts as Stern‘s ‚representations of interactions that have been generalized‘ (Stern 1985). The general idea here is that the psyche is structured and practically built from the early interactional experiences of the child in its relationships with caregivers. It also has to be noted that the term drive, so fundamental to orthodox psychoanalysis, meanwhile has been discarded in the contemporary schools of the Freudian tradition, and has been reformulated as the concept of motivations (e.g. Lichtenberg et al. 2009):

> “Post-Freudian‘s, for instance, have replaced Freud‘s pleasure principle as the primary biological drive with the idea of the need for relationship and relatedness as our most basic human longing. Wherever we turn across the psychodynamic spectrum, we see therapy more concerned with engagement, and more critical of all forms of disengagement, especially narcissism and other disorders of relatedness.“ (Tacey 1998, p. 228)

These ideas have already found their way into some schools of Jungian psychology:

> “For relational analysts, the social aspect of our being is fundamental to psychological life - it is not an add-on or a separate domain of our existence. This leads to a critique of what Stolorow and Atwood call ‚the myth of the isolated mind‘. .. It is not simply that the mind develops in the social context of relationships with others; there is a more fundamental idea here that the mind itself is social and that the private subjective self, the intrapsychic inner world, is subsequent to and contingent upon the relational context in which it is embedded.“ (Colman 2018, p. 130)

It should be noted that these ideas are more or less the contrary of how Jung imagined the development of a person, putting the emphasis mainly on what comes out of the individual. Archetypes here meaning preformatted patterns and structures which developed independently from experiences in interactional relationships, what Jung calls ‚autochthonous development‘.

These insights, of course, have far-reaching implications for the practice of Jungian psychotherapy: if, as in the classical school, the therapist waits for an autochthonous development to unfold out of the person independently, based on biologically/genetically imprinted archetypes, this may not happen, as the findings and insights presented above would suggest. Should the emphasis not be much more on creating a certain quality of relationship, as the relational schools in psychoanalysis suggest? But if so, what is the relationship between the idea of archetypes and an archetypal development of the person in the course of psychotherapy on the one side, and the contribution of the therapeutic

relationship on the other? It seems to me that this relationship is not really clarified even in contemporary schools of Jungian psychology. These questions will be discussed further in the final chapter on the process of psychotherapy.

Conclusion

In this chapter, the state-of-the-art in the fields of human genetics, developmental psychology, neurosciences and their interplay were presented. In sum, these findings and contemporary conceptualizations clearly refute what has been described as Theory 1: a biological conceptualization of archetypes. There is no doubt that in humans there are innate capacities and behavioural tendencies, but they are the opposite of what Jung imagined to be biologically rooted archetypes: all of these innate elements are not structures and contents, but only capabilities which are all directed towards creating relationship, participating in relationships and groups, initiating interaction and participating in communication, cooperation and sociality etc. In sum, they are directed towards social relationships. This is, as I have pointed out, the contrary of what Jung imagined as he claimed a biological foundation of archetypes. The archetypes Jung had in mind cannot be conceptualized as biologically or genetically founded in the face of the above theories and findings.

In the debate with George Hogenson at the IAAP Congress of 2001, Anthony Stevens argued: "Evolutionary psychologists and psychiatrists on both sides of the Atlantic have announced the presence of neuropsychic propensities which are virtually indistinguishable from archetypes. They use such terms as ‚evolved psychological mechanisms' and ‚innate propensity states'." (Stevens et al. 2003, p. 370). In the same manner, contemporary Jungian authors often make the mistake of using some of the findings presented above as , evidence' for the biological theory of archetypes, for conceptions of innatism, biological preformationism etc., without taking into account that the archetypes of classical archetype theory – anima and animus, the wise old man, the trickster, the divine child, the journey of the hero etc. – are something totally different from the capabilities that were found to be biologically rooted. So, I would conclude that Theory 1 is in a certain sense legitimate, which means that there actually are biologically preformed mental or psychological capacities in humans – but this has nothing to do with archetype theory. Archetype is not a biological concept and cannot be described or explained by referring to concepts from biology. So, when authors in Analytical Psychology still argue that there is evidence for innate psychological propensities, it has to be said that this is correct – see above – but is by no means evidence for the archetypes of analytical psychology being biologically rooted. Theory 1 is not part of archetype theory and should not be confused with it. It presents a totally different concept; a theory of innate psychological qualities and capabilities having nothing to do with archetypes. I would also suggest not to use the term archetype anymore for the concepts and findings presented above, as this creates confusion instead of clarification.

Why, at all, is it so important to describe the archetype as a biological concept, even for contemporary theorists? It is as if the theory, when armed with dubious concepts and findings from natural sciences and highly questionable pseudo-biological argumentations, became a better theory. Does that not mean to make the same mistake as Jung: to conceptualize

archetype theory as a part of the natural sciences, namely biology, in an attempt to defend the theory against criticism, to make it a , real scientific theory'? We have seen that very early in the development of analytical psychology a number of scholars clearly pointed out that this attempt was a defensive strategy by which Jung attempted to be regarded as a scientist, without caring for the state-of-the-art in biology, yes without even being interested. The attempt to ground archetype theory in biology was a misconception from the beginning – owing partly also to Jung's academical background as a medical doctor and thus a natural scientist and his conviction that psychology was a natural science. From my point of view, it is time to abandon this theory and to clearly acknowledge that analytical psychology and also archetype theory are not part of the natural sciences. There is no need to continue such attempts to create a biological foundation for archetype theory, as it does not make it a scientific theory, in contrast, such attempts have become highly questionable and make archetype theory unscientific. Of course, this does not mean that archetypes have nothing to do with, what could be called, human nature. The biological and also genetic makeup of humans plays a role in what kind of behaviour patterns, social rules and cultural contexts we develop. But it is not necessary – and I would argue it is even not possible – to investigate what is meant by the term archetype on the level of genes, gene environment interaction, instincts and patterns of behaviour etc. This is what in philosophical epistemology is called a category error. From my point of view, for decades analytical psychology has been caught in useless academic debates of discussing different biological pathways in the desperate attempt to find a biological explanation for how archetypes come about. The overarching question, from the viewpoint of archetype theory, would instead be: what is appropriate and characteristic for human beings? This question has been investigated in depth in the discipline of anthropology, therefore in the next chapter the state-of-the-art in this field of research will be discussed.

6 Anthropology

> "From that time onward, Jung would set out on a constant search for evidence for his hypothesis. Once his so-called psychiatric period at the Burghölzli hospital came to an end in 1909, Jung carried out an extensive study into the mythology of peoples from all over the world, eventually leading to the publication of his *Transformations and Symbols of the Libido* (1911/1912), later published as *Symbols of transformation* (1952). This research revealed the emergence of similar primordial images (*Urbilden*) across a range of different cultures. However, this hypothesis of the migration of symbols among different peoples was still not sufficient to explain the universal existence of similar images. The only possible explanation for this was an autochthonous sprouting of these primordial images from a supra-personal unconscious. Jung could also observe the constant appearance of collective, archetypal images in his patients' phantasies and dreams, as well as in his own unconscious material. Based on these various evidences, Jung proposed a hypothesis on the existence of a *phylogenetic unconscious* common to all mankind." (Walter Boechat: The collective unconscious. https://iaap.org/the-collective-unconscious-2/)

Jung's theory around archetypes contains ideas from and references to the field of anthropology. Specifically, very general and far-reaching assumptions regarding human universals that can be found in peoples from all over the world and from different epochs. He claims that there are similarities to be found cross-culturally in social rules and patterns, cultural habits and symbols/images, religious beliefs and ideas, mythological motifs and narratives etc. In the course of such argumentations Jung frequently refers to theorists and researchers in the field of anthropology and points to ethnological findings for such cross-cultural similarities, as well as to findings from prehistoric human societies and cultures. It seems that Jung had knowledge of a number of theories within the field of anthropology of his time, as far as they are cited in his published works. But the picture that is presented in the above quote, that Jung systematically investigated mythologies and other products and ideas of indigenous societies, is, from my point of view, part of the legend around Jung and his way of performing science. In the passages of the collected works, which make reference to anthropological theories and findings, I can see no systematic in the sense of an open-mindedly search for evidence speaking for or against his own theory; he even did not make systematic use of the findings reported by ethnological field researchers available already in his time. In contrast, it seems that he very selectively only presented the material which he thought was suitable to support his ideas. An example is the 1964 publication "Man and his symbols" by Jung together with his followers v. Franz, Henderson, Jacobi and Jaffé (Jung et al. 1964), which could be characterized as one of the already mentioned just-so-explanations: the focus lies on Jung's theory, which is illustrated with examples from cultures and religions, but only those which fit into the theoretical frame; there is no methodology applied, no systematic of data collection, no reference to other anthropological theories or studies, even the citations are almost exclusively from Jungian authors or just sources for the myths and fairy tales discussed – it is phantasizing in the disguise of a scientific study.

As I have already pointed out, the few references that Jung makes in the collected works to ethnological researchers (Eliade, Mauss, Levy-Bruhl, Paul Radin, Baldwin Spencer, James Stevenson, Winthius) are often even only footnotes. Jung was apparently very fond of Levy-Bruhl (1912/1921) and quotes him more than 60 times in his works, referring mainly to the concept of participation mystique. But Levy-Bruhl is more an anthropologically orientated philosopher in the tradition of 19th century science than an empirically oriented

anthropologist. The most important researchers and theorists of his time – Marcel Mauss and Bronislaw Malinowski - Jung only mentions once. This means, he knew of their works, but chose not to use them. This is quite surprising, especially in the case of Malinowski (1924), as he conducted research about the occurrence of the Oedipus complex in different cultures of the world. This should have been of interest to Jung. Claude Levi-Strauss (1949) does not get mentioned, even though he created an interesting alternative theory to Jung's archetype theory and began to publish these ideas in the 1940s.

My impression is that this approach to the use of findings and theories in anthropology has continued in analytical psychology, namely in the works of Erich Neumann, and up to the present day, as the above quote demonstrates, which is currently presented on the website of the IAAP in a section with recent summaries of the major concepts of analytical psychology. There is no doubt that Jung was very much interested especially in indigenous cultures, and he undertook adventurous travels (e.g., to Mount Elgon in Africa and Taos Pueblo in the Southwest of the United States) in order to personally meet such peoples and learn more about their world views. But the way in which he collected data and interviewed individuals from these indigenous peoples can by no means be characterized as proper ethnographic research – even though systematic methods for such research where very well available already in his time. Again, it seems, he was not really interested in such a kind of systematic research, with proper collection of data, a careful testing of hypotheses etc., but more in finding proof for his already pre-conceptualized ideas - and consequently, he interpreted what he found according to his own framework of thought.

The homology of phylogeny and ontogeny

In Jung there is a basic idea which parallels phylogeny and ontogeny, which is of major importance for understanding the endeavor Jung undertook in his works. The basic idea is that the archetypes have formed over thousands of years in the history of mankind and can thus be reconstructed by investigating early cultures and prehistory. They can also be found in so-called primitive peoples, their rituals, beliefs and mythologies, and they are repeated in the individual development of humans today. The archetypes (as structures of the collective unconscious) form the basis of all these different forms of development, historic, cultural, mythological, religious, and individual. This very fundamental idea in Jung's works was later unfolded in detail in Erich Neumann's (1949) "The origins and history of consciousness".
This theory entails an idea which has been characterized as the homology of phylogeny and ontogeny - the development of the individual (ontogeny) recapitulates the history and evolution of the species (phylogeny). The idea was introduced into human biology by the German biologist Erich Haeckel - and the concept, in fact, correctly applies to the prenatal embryonic development of human beings, but only on a biological level (e.g., the human embryo passes through developmental phases in which, for a short time, it develops features like gills etc.). Already in the 19th century, this originally biological concept was expanded to the field of psychological anthropology, which means that the psychological development of the individual recapitulates the evolutionary and cultural development of mankind as a whole.

Included in this idea is the assumption of a scale of different levels of maturity of development from archaic/primitive to developed/civilized, which can accordingly be applied to individual development as well as to the development of cultures and societies.
In Jung's worldview, there was a clear distinction, if not to say a hierarchy, regarding the differentiation of culture and, connected with this, psychological development and functioning: he was convinced that traditional/indigenous peoples were on a more primitive level of culturalization as well as of individual psychological development, and that this was evident in their mythologies, social and religious practices, but also in their mental functioning. An example: in his 1920 publication "Psychological Types", which remained uncorrected up to the last edition of 1949, he writes: "An incident in the life of a bushman may illustrate what I mean. A bushman had a little son whom he loved with the tender monkey love characteristic of primitives. Psychologically, this love is completely autoerotic that is to say the subject loves himself in the object." (CW 6, p. 403; see also Samuels 2017).
This viewpoint or model includes the assumption that so-called primitive people live on the same level of psychological development as earlier forms of Homo sapiens, e.g., Stone Age hunter gatherer groups, on the one hand, and as little children, on the other (e.g., CW 8, para. 95-98). Even more, this perspective includes the assumption that in psychopathology a degeneration, regression or dissolution of the so-called civilized state of mind of Westerners takes place which results in a state of mind on a more primitive level, which in this model is equated with the state of mind and psychological functioning of phylogenetically earlier, more primitive peoples, and/or that of children.
A good example of this way of thought in Jung's works can be found in his text "On the energetics of the soul" (CW 8) in the chapter on "The primitive concept of libido". Here Jung argues, based on a compilation of quotes from anthropology, that in the psyche of the so-called primitives there is a powerful energetic principle, for which Jung coins the term 'Mana'. This finally leads him to argue that the described phenomena in primitives is what Levy-Bruhl (1912) has called "participation mystique" – Levy-Bruhl even calls the primitives "les societés inférieures" (the inferior societies). Jung argues that primitives cannot distance themselves from the effects of this energy, nor can they reflect on it, the same as children. He even argues that they do not have a concept of it, but only experience it as a psychic phenomenon. This is what Jung calls 'primitive mentality' (see also the text under the term "archaism" in the Definitions in "Psychological Types" (CW 6, para 754).

> *"In us (Westerners) it would be a psychological concept of energy, but in the primitives it is a psychic phenomenon, which is experienced as being connected with the object. There is no abstract idea in primitives, generally not even simple concrete concepts, but only imaginations. Every primitive language provides multiple evidence for that." (CW 8, para. 127, transl. C.R.)*

Jung clarifies in this text that he sees the so-called primitives on a lower level not only of cultural development, but of psychological development as well. In another text, Jung (CW 8, para 668) argues that he sees the little child and the primitive on the same level of psychological development, without any evidence of ego consciousness, being strongly impressed by the expressions of their own psyche, and falling prey to magical beliefs.
Referring to Levy-Bruhl's concept of participation mystique – here translated as 'identity' - Jung writes:

> *"The identity is grounded in the notorious unconsciousness of the little child. This is also the connection to the primitives: they are to the same extent unconscious as the child. The unconsciousness causes the non-differentiation. There is no clearly separated ego yet existent, but only happenings, which are related to me or someone else." (CW 17, para 83; transl. C.R.)*

Jung then discusses what would happen if children were not to go to school:

> *"The children would stay to a high extent unconscious. … It would be a primitive state, which means that if such children would grow up, they would be, in spite of all natural intelligence, primitives, i.e. savages, like the members of an intelligent Negro or Red Indian tribe. They would not be just silly, but only instinctively intelligent, they would be unknowing and therefore unconscious of themselves and the world. They would start their life on a significantly lower level of culture and would be only slightly different from the primitive races." (CW 17, para 104)*

A parallel example from Neumann, who uncritically shared this view:

> "As the ego of the child recapitulating this phase is weak, easily fatigable, emerges only in single moments from the twilight of the unconscious and falls back into it, in the same manner the man from the early history experiences of the world. Little, weak, sleeping most of the time, i.e. mostly unconscious, he floats in the instinctual like an animal." (Neumann 1963, p. 92)

Giegerich's critique

As early as 1975, the famous Jungian author Wolfgang Giegerich (1975) pointed out the problems inherent in this idea of homology very sharply. He fundamentally criticizes the above-mentioned attempts by Jung, and Neumann and clearly distinguishes between cultural development and phylogeny. He concludes that it is impossible to argue for any kind of psychological evolution in history and characterizes Neumann's work as fiction and speculative construction. These ideas are characterized as in itself a myth, an archetypal fantasy. The problem is that these myths are presented as science. He also accuses Jung of a reduction of the mythological, as if it were not enough to present it as something cultural, to give the impression of a scientific theory. The author maintains that, as psychologists, it is not our business to look for historical or biological facts, but instead for the psychological truth.
There is a number of authors who argue in the same line and criticize Jung's models as the product of a longing for a conflict-free oneness, a lost paradise, and argue for an archetypal psychology which is free from mistaken ontological reductionisms (e.g., Papadopoulus 1992). It is interesting that, although Giegerich's critique was formulated as early as 1975, in recent publications still Neumann's approach is defended and the central argument in the critique is not really understood. Walch (2005), in a paper given at a conference in Vienna celebrating the 100th birthday of Neumann, accuses Giegerich of misunderstandings and a destructive tendency when he tries to confront Neumann's assumptions with insights and facts from studies in mythology. The central argument here, again, as in so many papers in analytical psychology, is that the archetypes are located in the collective unconscious and can therefore not be compared, described or explained with empirical facts or insights from so-called ‚positivistic' sciences.

The homology-hypothesis in the history of anthropology

The idea of homology presented above was quite common and widespread in 19th and early 20th century anthropology. In German romantic thought this idea can be found as early as the beginning of the 19th century, e.g. in Wilhelm v. Humboldt and Johann Gottfried Herder,

presented as 'Volksgeist' (Wolfradt 2021). With the 1888 publication of his 'Völkerpsychologie' (people's psychology), Wilhelm Wundt became the main protagonist of this universalist viewpoint, and, as we know, was highly influential for the development of Jung's ideas. Wundt proposed the evolutionist idea of a level theory: 1. Primitive phase; 2. Totemic phase; 3. Age of heroes and gods; 4. Development towards Humanity. Likewise important for Jung were the ideas of Adolf Bastian (1881), who presented the concept of 'elementary thoughts', which are the foundation of a 'psychic unity of mankind' – a concept which obviously laid the ground for Jung's archetype theory (for more details on Bastian see below). Lastly, Levy-Bruhl (1912) - of whom Jung was very fond of – assumed that 'primitive peoples' were only capable of illogical ways of thought and therefore prone to magical beliefs – a viewpoint which Jung adopted without any reflexion. These ideas had an important role in the justification of the politics of colonialization well into the 20th century. Since this approach was based on a biological/evolutionist perspective, it attempted to connect psychological qualities of indigenous versus European societies with physiological characteristics, as for example the form of the head, facial expressions etc., attempts that were continued by the Nazis in their 'Rassenlehre' (race theory). These approaches were based on two fundamental misconceptions: first, the biological development was equated with sociocultural developments, and second there was a fundamental lack of systematic empirical methods and consequently of respective studies and findings (Wolfradt 2021).

In contrast to Jung, his fellow countrymen Jean Piaget, who also described a level of cognitive development in children characterized by animism and magical beliefs, did not go as far as paralleling this with the psychological state of mind of the 'primitives', and can provide a lot of empirical evidence for this way of psychological functioning in children. This stands opposed to Jung, who just repeats widespread assumptions in the anthropology of his time.

It should be noted that this view of indigenous people had devastating effects in practical politics. The German psychiatrist Heinz (2019) demonstrated in a thorough investigation of this historical viewpoint, that it was strongly supported by Eugen Bleuler (1911), head of the psychiatric hospital at Zürich University and Jung's boss and academical supervisor in the years from 1903 until he left the university. Bleuler developed these thoughts in his famous work on dementia praecox/schizophrenia, which was also influential for the development of Jung's ideas. In this famous work, which had strong influences on the development of psychiatry in the 20th century and also on the concept of schizophrenia, Bleuler speculates in a very racist way about the primitive psychological functioning of Negroes. These ideas played a certain role in the war and the following attempts of extermination of the peoples Nama and Herero in the German colony Southwest Africa, a war which was headed by the Imperial Commissioner Ernst Heinrich Göring, the father of the Nazi leader Hermann Göring. Such ideas were used by the German racists as a justification for the treatment of indigenous African tribes and peoples as they were considered to be living on the level of wild animals. It is obvious that Jung's thinking about the primitives and the primitive state of mind were influenced by these thoughts and perspectives and were never really reflected upon during his lifetime. This is sad, because Jung would have had the opportunity to correct his thinking: the anthropologist Bronislaw Malinowski, who lived with the 'primitive' people of Melanesia during the time of the first world war, published his reports about these people as early as the

1930s (available in Malinowski 1948/1974; it has to be noted that Jung knew Malinowski, because he quotes him). He provided a lot of ethnographic evidence which speaks clearly against the assumption that these colonialized peoples were subject to an evolutionarily more primitive, irrational way of thinking, which was thought to be categorically different from the thinking of modernized people in the Western world. He provided evidence that these assumedly primitive people were absolutely capable of goal-directed thought, rationality and even empirical studies, e.g., in the search for healing substances in plants. He also demonstrated that the seemingly irrational rituals and practices of these peoples were in general goal-directed and made a lot of sense, as soon as one tried to understand their function in the relevant context.

"An example: as a Polish citizen, Malinowski was interned in Melanesia during the first world war, since this region was a British protectorate. Being an anthropologist, Malinowski decided to make use of this time by choosing to live on the Trobriand Islands to study the indigenous people there, who had had practically no contact to modern civilization up to that time. He participated in the life of the Trobriands (a way of conducting ethnographic research which was later termed participative observation), which included lots of daily rituals – practically the whole of everyday life was permanently accompanied by religious rituals. At first glance, this structuring of every day life seemed to support the above-mentioned ideas, that these indigenous people were not able to conduct daily life without permanently appeasing wrathful deities. But there were interesting exceptions from that rule: the Trobriands were fishermen and very competently sailed the open seas surrounding their islands in fragile wooden boats; Malinowski observed that while on the sea no rituals were conducted. When asking for the reason, he received the answer that only crazy people would conduct rituals on the open sea, where you need all your senses and intelligence to master the dangers of the wild ocean. This clearly demonstrates that these so-called primitive people were well capable of differentiating situations and of distancing themselves from the influence of magical powers, and thus to act highly rationally."

Also, in psychiatry the above-mentioned viewpoint was strongly criticized as early as 1930, as it could be demonstrated that this model provided no satisfying explanation for the development of schizophrenia (Storch 1930).

Racism in Jung

The anti-Semitic comments Jung made during the 1930s have been criticized for quite a while (Kirsch 2004). More recently, racist statements Jung made about Africans (he believed they had inferior cognitive abilities compared to white people), have been discussed (Group of Jungians 2018). In the year 1934 Jung published his article "Die gegenwärtige Lage der Psychotherapie"(The current state of psychotherapy; CW 10); in a crucial passage he speaks about the differences between the Jewish and the Aryan unconscious and that the Aryan unconscious has a superior potential compared to the Jewish one. He then speaks in a very devaluing way about Freud and that he was not able to understand the potential of the Germanic race. This is the most problematic quote, but by far not the only one. In the essay "Wotan" (Jung 1936, CW 10), as in other publications and statements from the time, Jung continues this line of argumentation. In the 1990s, the German Society for Analytical Psychology conducted a research project, collecting all the anti-Semitic statements and publications by Jung (Tann & Erlenmeyer 1993). It clearly demonstrates that Jung's anti-

Semitic thinking can be found in many of his works and public statements and covers a period of at least 25 years. My point here is not to prove that Jung was an anti-Semite. What I'm trying to point out here is the fact that these statements are closely linked with a certain point of view in Jung, a mindset, which is based on his biological understanding of archetypes and the above-mentioned homology idea. This leads to figures of thought which can objectively be called racist.

Jung himself admits to having declared his support for "Rassenpsychologie" (race psychology) long before the Nazis came into power (Dalal, 1991). There are actually earlier examples of his anti-Semitic and racist thinking like his essay "Über Unbewusstes" from 1918, as well as a lecture given to the Zürich psychoanalytic society on January 24th 1913 called "Die unbewusste Psychologie der Neger" (The unconscious psychology of Negros) (Shamdasani 1998, p. 15).

Recently a group of Jungians in the British Journal of Psychoanalysis collected and criticized relevant statements about the inferiority of Africans in comparison to Europeans based on his archetype theory. They emphasize that Jung's circle had already warned about his problematic views on the subject, but Jung would not listen (Group of Jungians, 2018; Dalal 1991).

In the essay "Nach der Katastrophe" (After the catastrophe) (1945) Jung begins to deal with his own thoughts but no real self-reflection is happening. Even after the war Jung says:

"It is however difficult to mention the antichristianism of the Jews after the horrible things that have happened in Germany, but Jews are not so damned innocent after all - the role played by the intellectual Jews in the pre-war Germany would be an interesting object of investigation." (Bair 2003, p. 444). This again is a highly typical anti-Semitic line of reasoning, claiming that the Jews are responsible for their own persecution.

The most personal form of confession can be found in the wording: "Jawohl, ich bin ausgerutscht" (Yes, I slipped; transl. by the author) (Jaffé 1985). This problematic expression insinuates that the problem does not lie within his own character but in the unstable ground below him, therefore his only mistake being to not have been careful enough not to slip. This does not match the extent to which he was caught up in anti-Semitic and racist ways of thinking, which can be seen throughout his work ever since 1913.

Aniela Jaffé (1985) has already shown that Jung did not really reflect on the problematic nature of his thoughts and especially the consequences of his statements at that time:

"Aber die Tatsache, dass Jung mit der Betonung der jüdischen Besonderheit an die Öffentlichkeit trat, da das Judesein eine Lebensbedrohung war, und dass er die psychologisch-rassischen Unterscheidungen auf das wissenschaftliche Programm der Internationalen Gesellschaft setzte, muss als ein schwerer Fehler angesehen werden. Auch wenn die abgründigsten Konsequenzen des Judenhasses erst später bekannt wurden, war jeder Hinweis auf jüdisches Anderssein zu jenem Zeitpunkt Zündstoff für weiteren Fanatismus" (It has to be seen as a severe mistake that Jung emphasized the specialness of being Jewish in a time when it was life-threatening to be the Jewish, and that at the same time he put psychological -racist differentiations on the scientific program of the International Association. Any statement pointing to Jewish otherness at that time was provoking more fanatism; transl. by the author) (S. 72). In the same line: "It is not enough to say, when we look at Jung's racism, sexism, anti-Semitism and so forth, 'Well he was just a man of his time'. The problem with that, especially in relation to the anti-Semitism, is that he wasn't. There was a wide acrimonious debate about what he was doing and saying in relation to Jews and Germans at the time. In 1936, when it was proposed to give him an honorary degree at Harvard, there were virtual riots. … So it was not as if Jung could not have done anything else. People at the time knew that he had various options open to him." (Samuels 1998, p. 24-25).

In my opinion Jung was never really an anti-Semite at heart - considering the fact that a lot of his students came from Jewish backgrounds and always had a warm and heartfelt appreciation for one another, e.g., Erich Neumann, Sabina Spielrain, James Kirsch, Jolande Jacobi, Carl Alfred Meier, to name a few (for an overview see Kirsch 2002, 2016).
But Jung as a person is not the point here, it may even be difficult or impossible to find out what he really thought and felt. What I am trying to point out here is that Jung's racist and anti-Semitic arguments are connected with his theory of archetypes, namely its biological foundation. Jung takes a biological view on archetypes, which is built around the idea that humans have a phylogenetic evolutionary heritage which necessarily forms their behavior and personality to a large extent (Roesler 2009, 2019). This means, because of one's belonging to a specific race and due to the fact that, according to Jung, genetics form the personality, the form of a person's psyche corresponds with the racial heritage. In the case of black Africans and Jews Jung connected this with a value judgment. That brings Jung's theory close to fascist ways of reasoning, which also believe in a biological foundation of national characters and base their supposed superiority on this line of argumentation. So, to argue that archetypes are based in one's biology, and therefore if there are biological differences between ethnic groups, to argue that they are psychologically different "by nature", is objectively seen a figure of thought generally used by fascist and racist theories. As well as there are biological differences between the races, from his point of view, there are also inherited psychological differences between the races. This is, without any doubt, a racist argumentation, a figure of thought, independent of what Jung as a person thought about Africans or Jews. It also has to be considered that this argumentation has been scientifically disproved quite a while ago - there are, for example, no biological differences in intelligence between the human races. The corresponding investigations were conducted by Franz Boas as early as 1910: by using questionnaires he tested whether the children of immigrants to the United States adapted to the habits and the way of thinking in their new home country and could provide evidence that after one generation there were no differences detectable anymore between these second-generation immigrants and the native population (Wolfradt 2021). Based on these findings Boas supported an antiracist anthropology (see below for more details).
In recent times it has even been questioned whether there are different human races, because investigations in the genome have made clear that all so called races share a large amount of similarities – which are the result of migrations and mixing of different ethnic groups in the history of human development – so we all are more or less 'hybrids' and the descendants of migrants (see also chapter "Prehistory"). Certainly, there is no such thing as a "pure race" (e.g., Aryan). The strange thing is that Jung could have used his archetype theory – since archetypes are thought to be universal – for putting the emphasis on the equality of all humans; instead he chose the racist point of view.

Evidence speaking against the homology-hypothesis

The view described above, which could be characterized as "colonial thinking", was not only strongly questioned in anthropology, but it can be said that this viewpoint has been refuted in contemporary ethnology. The German term "Naturvölker", which translates as natural peoples, was even eliminated from contemporary publications in anthropology, as the assumption included in the term that traditional peoples live closer to or in identity with nature - as they are closer to the animal level regarding their mental development – is by no

means supported through ethnographic findings. In general it can be said that there is an independence between technological development of a traditional people and the complexity of their cosmologies. So, for example, the indigenous peoples of the Amazon basin lived on a Stone Age level of technology, but had extremely complex and multi-layered cosmologies. It is a widespread romantic fantasy that these so-called natural people live in ecological harmony with their environment - and this belief is inherent in Jung's archetype theory, since he argues that problems of modern man have to do with the alienation from nature, in general as well as regarding our own human nature; e.g.:

"It [the archetype] throws a bridge between present-day consciousness, always in danger of losing its roots, and the natural, unconscious, instinctive wholeness of primeval times" (CW 9/1, para. 293).

Here are some findings from archaeology which speak against the inherent prejudice, the phantasy of a "natural, unconscious, instinctive wholeness":

Archaeological findings in North America point to the fact that when the first hunter gatherers arriving from Asia via the Bering Strait land bridge, in a period of less than 1000 years they had eradicated all the big mammals living on the continent, except from bison, deer and caribou, because these were either too aggressive or retreated into forests or polar regions. Killing these large mammals (e.g., mammoth) was so easy because these animals had no schema for protecting themselves against human hunters.

> "Whereas the extinctions took place probably before 30,000 years ago in Australia, they occurred around 17,000 to 12,000 years ago in the Americas. For those extinct American mammals whose bones are available in great abundance and have been dated especially accurately, one can pinpoint the extinctions as having occurred around 11,000 BC. Perhaps the most accurately dated extinctions are those of the Shasta ground sloth and Harrington's mountain goat in the Grand Canyon area; both of these populations disappeared within a century or two of 11,000 BC." (Diamond 1997, p. 46-7; see also Mithen 2003 for a detailed account)

What is today known as the big prairies in North America originally was forest land, but the immigrating hunter gatherers from Asia burnt down these forests completely so as to be able to hunt their game more easily in the grasslands. This took place more than 10,000 years ago and is considered to be one of the largest destructions of biosphere in the history of mankind. Similar extinction patterns can be found for Australia and New Guinea:

> "All of those Australian/New Guinea giants (the so-called megafauna: a 400 pound ostrich-like flightless bird, big reptiles, including a 1 ton lizard, a giant-python etc.) disappeared after the arrival of humans. While there has been controversy about the exact timing of their demise, several Australian archaeological sites, with dates extending over tens of thousands of years, and with prodigiously abundant deposits of animal bones, have been carefully excavated and found to contain not a trace of the now extinct Giants over the last 35,000 years. Hence the megafauna probably become extinct after humans reached Australia. … In contrast, most big mammals of Africa and Eurasia survived into modern times, because they had coevolved with proto-humans for hundreds of thousands or millions of years. They thereby enjoyed ample time to evolve a fear of humans, as our ancestors' initially poor hunting skills slowly improved. The dodo, moas, and perhaps the giants of Australia/New Guinea had the misfortune suddenly to be confronted, without any evolutionary preparation, by invading modern humans possessing fully developed hunting skills." (Diamond 1997, p. 42-43)

The extinction of Eurasia's woolly mammoth and woolly rhinoceros may have similar reasons, as around 20,000 years ago human hunter gatherers were able, even in the face of Ice Age

climates, to move northward, due to the development of the technology of needles and sewing, which allowed for the production of warm clothes protecting against the cold (Diamond 1997, p. 44). One could even argue that in modern humans there is a much greater awareness for the sensitivity of their ecological environment and for the devastating impact humans can have on it.

'Survivals' and 'human fossil' societies: The way of thinking outlined above, prominent in the evolutionary school of anthropology, led to the idea that there can be found human groups or societies which are remnants of the Stone Age, because they have been relatively isolated. These societies were thought to be representatives of a racial purity and their social system being a kind of living fossil that could reveal information about prehistoric human groups and societies, and in general about the development of mankind. An example for this approach is Radcliffe Brown's investigation of the peoples of the Andamanese islands; here he divided their cosmology into a tripartite schema, consisting of sea/water, forest/land, and skies/trees, which should explain their religion as well as their system of social hierarchies and functions (Wunn 2019). Another example of this way of thinking is Edward B. Tyler's theory about primitive religion (see below for details on these outdated theories). Contemporary anthropologists strongly criticize this viewpoint and stress the point that these views are not shared any longer in anthropology.

> "The evolutionary school in anthropology saw a uni-linear progression from more primitive societies to more civilized ones. Accompanying this progression was a similar proposed progression from magic to religion to science. Myths were seen as belonging to the primitive period, with sacred myths being replaced by secular folktales until finally dying out altogether in civilized societies. It is important to remember that anthropologists no longer believe in such an evolutionary progression or that peoples can be classified as primitive or civilized.
> Theorists from the evolutionary school assumed that modern people living in small-scale societies lived and thought the same way that earlier European societies had. They compared myths found in many different cultures, looking for common elements from which they could reconstruct an assumed original form of myth from which all others had arrived. It was believed that doing this could help explain puzzling aspects of modern European society.
> The work of James George Frazer is a good example of this approach. He collected as many examples of myths and magical practices from around the world as possible and published them as a 13 volume work entitled 'The Golden Bough'. Although modern anthropologists criticize the information in the Golden Bough is taken out of its cultural context, the book is still widely read [and was highly important for Jung's archetype theory, with many references in the CW; CR.]. … Since Frazer's time, further studies of myths have found that no single myth exists cross-culturally, but characteristic versions of the story may be found in specific areas. For example, in Africa, origin of death myths revolve around the failure to deliver a message whereas among Native Americans the story centers on the debate on the subject of death." (Stein & Stein 2008, p. 41)

Jung and the Grand Theories of the 19th and early 20th century

The general assumptions inherent in Jung's archetype theory, as for example the above-mentioned homology and the general idea of a scale of development from primitive to civilized, were not Jung's invention, but can be found in a number of other theories in anthropology, which were formulated in the 19th and early 20th century. In the following these will be characterized as the grand theories of anthropology (for an overview see Bowie 2004).

Many of these thinkers were strongly influenced by Darwin's ideas of the process of evolution in biology, and attempted to apply these findings to the explanation of the development of societies, religion, rituals etc. and in general on the development of human history itself. These approaches can therefore be characterized as evolutionistic (the following account is based on Beer & Fischer 2017, Stein & Stein 2008, Bowie 2004, Harris 1975).

Herbert Spencer, a 19th century British social and political thinker, had the general theory that all things move from simpler to more differentiated complex forms on the path of a universal evolution. Spencer attempted to apply this idea to the explanation of the development of religion and assumed that ancestor worship was at the root of every religion.

Edward Burnett Tylor, however, emphasized the role of the soul in his account of religious origins, and coined the term animism, which describes the idea that all beings, animate and inanimate objects, have a soul. This idea became very influential in anthropology and is still used as a general descriptive term for primitive or indigenous religions. Also, Jung heavily referred to this idea. Tyler's work 'Primitive Culture' (1871), which summarized these ideas, became very influential in 19th and early 20th century anthropology. He developed the notion of three stages of social evolution, going from animism over polytheism to monotheism. Interestingly though, Tyler did not assume a biological base for these developments, but coined the idea of diffusion, the transmission across time and space of cultural elements and traits. He also developed the idea of survivals, which means that some of these primitive elements remain even in advanced or civilized societies and are connected to an earlier evolutionary stage. Tyler was convinced that in so-called primitive cultures there was not a variety but uniformity and he even expressed a certain extent of boredom when referring to the similarities: "the same story everywhere". Not only is this devaluing account problematic in Tyler, but also the value judgments that he gave to his scale of stages of cultural development poses a difficulty.

Very much the same way of argumentation can be found in L.H. Morgan's (1877) influential work "Ancient society, or researches in the line of human progress from savagery through barbarism to civilization" - a title which summarizes the general idea of a scale of development of human cultures. All of these theories, therefore, pose the idea of an initial primitive state of mind, society, religion etc. from which civilization develops, and which can be found still in so called primitive peoples or societies, which means mainly contemporary hunter gatherer societies.

Another grand theory of that time can be found in James Frazer's seminal publication "The Golden Bough" (1890). In Frazer's account of the development of religion the basic assumption is that magic precedes religion.

Leo Frobenius (1904, 1936), a German ethnologist and very popular author in his time, is exemplary for the reductionist views in these grand theories. Frobenius was a very active field researcher and gained international reputation with his copies of Stone Age cave paintings and rock art, which he collected in a number of adventurous expeditions to all parts of the world, namely Africa and Australia. Prior to that he became widely known as a collector of mythologies from all over the world. He founded the discipline of "Kulturmorphologie" (morphology of cultures) connected with an Institute, which still is active in Frankfurt/Germany. He followed the evolutionist viewpoint that especially in the cave

paintings as well as in the mythology of the peoples of the world the development of culture itself could be identified; he saw the paintings as well as the myths as an expression of the archived nature of man itself. Interestingly, one of his publications on cave paintings has the title “Das Urbild” (the primal image) (Frobenius 1936), the same term that was used by Jung initially for his concept which he later called archetype. Frobenius also followed the above-mentioned idea that there is a homology of Stone Age cultures with today’s so-called primitive peoples, so the study of these contemporary hunter gatherer societies would provide information about the ways of living in the Stone Age. He even called the prehistoric rock art the picture book of the history of humanity. He stressed the point that also in modern humans the archaic irrationalism is stronger than modern consciousness: “The naive life is always stronger than that which is conditioned by consciousness” (Frobenius 1936, p. 139; transl. C.R.). Even though he became highly popular in his time especially through his widely read publications, he remained an outsider in this scholarly field of anthropology. Jung heavily relied on Frobenius in his works, starting with his seminal 1912 publication ‘Symbols of transformation’, although Frobenius was a diffusionist (see below in the section on mythology). It is quite clear that Jung was strongly influenced by Frobenius’ ideas on the primal image, the archaic etc.; since it is obvious that he uncritically shared many of these viewpoints and also quotes him extensively. The same applies to the theories of Tyler and Frazer, who are quoted by Jung in the Collected Works many times.

A similarity in all of these grand theories is the general assumption that laws taken from biology, especially the processes of biological evolution, need to be applied to all the other fields of anthropology, society, religion, mythology etc. This is a view shared by Jung, who was convinced that psychology is a natural science, and who took an evolutionist point of view, as I have pointed out above.

Contemporary criticism of the evolutionist school

All of the grand theories are heavily criticized by contemporary anthropologists, for example:

> ”The ‘butterfly collecting’ mythology, which juxtaposes information, often of a very dubious provenance, totally out of context, allows the author to prove almost any point he cares to make. This has not prevented the Golden Bough in its abridged edition from remaining almost constantly in print.” (Bowie 2004, p. 15)

This point of critique could also be applied to Jung’s works, Jung heavily relied on Frazer. Also, other contemporary anthropologists have taken this point of critique towards the 19th century classics, arguing that these theories were lacking any real evidence, and that these theories were fallen to the “if I were a horse”-fallacy, and their tales of origins of religion as “just so stories”. If these theories were correct, as civilization progressed these irrational but fallacious reasoning would die out. In contrast animistic and medial views of the world still exist, even in contemporary societies - a fact which Jung was very much interested in.

The critique against these unilinear theoretical accounts was first formulated by field researchers, who could not find empirical evidence for these theories developed by scholars that often never even left their university offices (Beer & Fischer 2017). Interestingly, Jung preferred to follow these ivory tower thinkers instead of using empirical data of field

researchers. From the perspective of field researchers, the similarities found in different peoples had strong connections to similar environmental conditions or to similarities in how they produced food, e.g., agricultural or horticultural societies, which were connected with specific social systems and hierarchies. In other words, specific social or cultural belief systems could be seen as adaptations to a certain environment or a certain way of life[10]. These insights formed a tradition in anthropology which could be characterized as finding systemic explanations for the similarities and differences between cultures (e.g., Marcel Mauss).

A good example of such a systemic approach to understand parallels and similarities between cultures is the theory of the **German anthropologist Klaus Müller** (1983). He starts from the insight that all human groups, because of their similar physiological and psychological conditions, are confronted with similar problems in life, and therefore find similar solutions for these basic problems all over the world. In his theory he attempts to describe in general form these invariable antecedent conditions as well as the invariants in individual and group behaviour, including cultural belief systems. In his investigations he found that these orientating systems are stable and have the same topographical construction, which can be characterized by the elements of centre versus periphery and a dichotomy of a positively valued realm of cultural habits versus a negatively valued realm outside of one's own culture. These differentiations or separations are constructed by stabilizing mechanisms, of which he identifies seven: separation, rationalization, dogmatization, ritualization, negation and absolutization. These mechanisms make the social system immune against critique and questioning, so for example religious ideas and rituals are considered in many societies as sacred and therefore not to be criticized (interestingly, this applies also to theories and procedures in psychoanalytic communities). Problems arise when transitions are needed from one realm to the other, for example transitions in status (e.g., marriage, the transition from childhood to adulthood), therefore these transitions are usually ritualized – here Müller fully agrees with Van Gennep's (1909) description of rites of passage (see chapter "Religion").

Another characteristic pattern in these grand theories for the explanation of the development of human culture and religion is the attitude to try to explain all the different forms by applying just one monolithic explanatory system. Often these systems use binary oppositions. An example is Emile Durkheim's (1915/1976) work about the 'Elementary forms of religious life', for which he used an investigation of Australian aboriginal peoples (of which he believed that they represented the simplest form of society and could therefore serve as a model for the roots of human culture). In this system the key distinction was between the sacred and the profane, interestingly the same that was later used by Mircea Eliade (1959). Durkheim's theories were highly important for Jung in developing his own system of thought, and again in Jung can be found such a binary opposition as the central explanatory concept, here: the opposition between unconscious and consciousness, male and female etc. Another famous

[10] This critique was also put forward against Jung: "We have also seen that Jung's notion that archetypes are universal – the same everywhere – is undoubtedly faulty, except possibly in the case of a limited number of archetypes. Moreover, demonstrating the existence of universal archetypes is fraught with problems. We have seen that such a demonstration requires eliminating the possibility that common human experience could account for similar archetypes in widely scattered individuals and in diverse cultures, and this is exceedingly difficult" (Neher 1996, p. 86).

system in anthropology which uses a binary opposition is that of Claude Levi-Strauss' (1970, 1977) 'Structural anthropology', which makes use of the distinction of the raw and the cooked. Only later in the first half of the 20th century the first anthropologists left behind these monolithic explanatory concepts, for example Franz Boas (1922), who stressed the cultural differences in his ideas about historical particularism. He combined the emphasis on social functions with a focus on individual psychology. This leads to an understanding of characteristic cultural styles unique to each society. As a consequence, Boas explicitly took an antiracist stance in anthropology – interestingly, Jung chose not to use this theory, even though it was available to him, which could have changed the racist element within his concepts.

In general, it can be said that as soon as anthropologists started to use systematic methods of comparison in the second half of the 20th century, it quickly became clear that the earlier theories had to be refuted as they could not be backed by evidence. This also applies to later theories, e.g., Levi-Strauss' system, even though he makes use of a very detailed method of comparison:

> "As with the earlier search for universals, the innate structures proposed by Levi-Strauss remain speculative and (like Frazer's Golden Bough) there is a danger of simply amassing data that repeat an argument without actually strengthening it … Many critiques have in the end found that such an approach leaves too many important questions unanswered." (Bowie 2004, p. 20)

A basic result of these systematic comparative methods in anthropology is the insight that there is not one unifying concept which can explain the variety of cultural forms and ideas. Regarding Durkheim's binary concept of the sacred and the profane, Bowie (2004) states:

"Many anthropologists have pointed out that it is not always possible to distinguish in practice between the sacred and the profane, and this idea, so central to Durkheim's work has by and large been discarded, at least as a monolithic organizing principle." (p. 140).

In contemporary handbooks, anthologies of anthropology and the history of religion Jung's ideas are also sometimes explicitly mentioned, often together with Freud's assumptions about totem and taboo. Both are usually criticized for their far-reaching speculations and their limited use of empirical data. "In part because Jung's archetypes are alleged to be universal and pre-cultural, he has received less attention in anthropological circles than Freud, whose theories are more amenable to cultural relativism. Anthropologists have also criticized Jungian analysis for rarely using data from non-Western sources." (Stein & Stein 2008, p. 45).

Bachofen's 'Mutterrecht' and Jung's 'Great Mother'

An especially drastic example of one of these historical grand theories, on which Jung heavily relied on, is Bachofen's (1861) monumental work on 'Das Mutterrecht' (translated as 'The law of mothers', 2004) - interestingly, he was a fellow townsman of Jung's. Bachofen was a renowned scholar and historian, very much interested in mythology and symbolism. In his theory he assumed that in human history there had been a period of matriarchy, which was thought to be also a period of political rule of women. This was then thought to be followed by a period of destabilization initiated by invasions of patriarchal people introducing patriarchy in combination with a repression of all memory of those prior eras. Jung very much

appreciated this theory and was looking for matriarchal symbolism in his own works, and assumed matriarchy to be a stage in the development of consciousness. This was later taken up by Jung's follower Erich Neumann in 'The origins and history of consciousness', and in his second monumental work 'The Great Mother' (Neumann 1963), in which he relied heavily on Bachofen's theory of early matriarchy. Neumann actually praises Bachofen as being the discoverer of the "deeper psychic layers of the development of mankind" (Neumann 1963, p. 92). Jung wrote the foreword to Neumann's first work and welcomed it since – as Jung argued - it grounded analytical psychology on a firm evolutionary base (CW 18, §521-522). Jung's ideas about the psychological feminine often are grounded in Bachofen's ideas. It has to be noted that these ideas, though they became popular again in the women's movement, have long been refuted, as there is absolutely no evidence of any kind for these ideas. Bachofen's ideas were mainly based on intuitions and phantasies (van Schaik & Michel 2020). We will come back to this topic in the discussion on prehistoric female figurines, which were also interpreted as evidence for matriarchy or at least for a universal cult of a great mother goddess (Gimbutas 1989) (see chapter Prehistory).

Contexts are relevant

Another important point in which contemporary approaches to anthropology, the development of human culture, religion, societal rules etc. differ from the classic grand theories, is the insight that religious ideas and beliefs, religious rules and rituals are closely interconnected with social organization, political interests and power regulation, hierarchies etc. on the one hand, and on the other hand with environmental conditions and the needs and pressures that result from it.

> "Cosmologies are not, of course, pulled out of the air to suit the convenience of the communities to which they are attached. They are conditioned by many and various historical, environmental, technological, psychological, and social factors. A flourishing community is likely to involve a bright, self-affirming cosmology, and the languishing communities likely to see the world in darker shades." (Mathews, 1994, p. 13)

If investigated without any prejudices, it becomes apparent that societies and their belief systems as well as cosmologies are directly connected in complex ways with the environment in which it is located, and with social attitudes. Therefore, it has to be acknowledged that cosmologies and other religious elements serve certain functions in societies. This is also another argument against the above-mentioned notion of a scale of primitive to civilized:
"An irrational view of the world as peopled by spirits may be more adaptive than a scientific view that sees the world in mechanistic terms"(Bowie 2004, P. 122).
In general, contemporary anthropologists take the viewpoint of how adaptive a cultural belief system is to the needs of a people and their situatedness in a certain environment.

Culture before biology

Lastly, there is a contemporary tradition in anthropology which stresses the interrelatedness of human biology and culture, in the sense that not only the biological conditions of humans produce certain cultural elements, e.g., a religious belief system, but also that culture has a

strong impact on the development of humans (Beer & Fischer 2017). One example is language and how the specifics of a certain language shape the way an individual as member of the respective culture views the elements in the environment. Even in the so-called cognitive ethnology, which originally attempted to find universal cognitive structures, again in the search for human universals, finally found that even cognitive structures or procedures are heavily influenced by cultural conditions and socialization (Norenzayan & Heine 2005). Also noteworthy is that human beings cannot develop or even survive without being integrated into a social group. Any social group always has culture - in this sense, culture is an a priori to human development. Radcliffe-Brown is an exponent of this approach and stresses the point that each individual, as soon as he or she is socialized into a specific culture, is limited in how he or she can react to certain stimuli or conditions on the base of the patterns the culture provides. In this sense, culture is part of human evolution, and in many aspects has a much stronger influence on human development then the biological outfit. This viewpoint is even supported by biologists and geneticists investigating human evolution: as was pointed out above in the chapter on biology, it was discovered that early Homo sapiens groups relied more and more on cooperative hunting, since this provided higher nutrition reservoirs for the group. This made the capacity to cooperate and to be capable of complex social interaction a selection criterion for evolution. So, in fact, culture and societal structures became an environment to which the genome had to adapt.
These insights have been summarized in the so-called Dual Inheritance Theory (Paul 2015):

> "Unlike other forms of life, human life, which takes place in social groups, requires a massive quantity of additional instructions beyond what is contained in the DNA; this information is collectively the culture of the social group, and is composed to a highly significant degree of systems of symbols. Symbols, the constituent units of that which is transmitted via social learning, that is, culture, or bits of information just as are genes etc. that compose the instructions inscribed in the DNA. … Culture is built up from symbols arranged into symbol systems differ from society to society, as do the forms of social organization that are enabled by the symbol systems. … Genetic variation, though it very probably plays some role in the variation among human groups, is not significant enough to account for the observed variation in human sociocultural systems. Homo sapiens is a single species, but one whose sociocultural forms differ widely across time and place. These differences between societies and their cultural systems are thus the result of differences in the cultural symbol systems themselves, not of genetic information. To take an obvious example, all human groups have language, the capacity for which is no doubt a genetic trait; but languages, which are systems of symbols, vary widely and are mutually unintelligible; this variation is in the symbols, not in the genes. Both genetic instructions encoded in DNA and cultural instructions encoded in symbols are required for the construction of a complete person. DNA does not give a human organism enough information for it to survive and flourish." (p. 6-7)

> "Indeed, and this is crucial, the symbols, from the point of view of the developing child, are out there in the world before they are in the brain. .. So while it is true that symbols from the world can be re-transcribed in the course of learning and enculturation into neuronal codes and stored in the brain, they do not originate there, nor is that their only or even primary location." (p. 71-72)

This theory therefore stresses the importance of institutions in constituting human society, which means the existence of collective realities stands above the level of individuals.
"It is therefore a fundamental principle of social and cultural anthropology that institutions such as matrilateral cross-cousin-marriage or male initiation rituals can be understood, analysed, and compared on their own terms and need not be thought of only as a collection

of individuals with brains containing such and such instructions packed into them" (p. 73) - this is of course a direct blow against Jung's biological argumentation and demonstrates that forms of collective memory in anthropological terms can be theorized without recourse to biological argumentations.

There is no doubt that culture has developed, as it serves the function of providing an evolutionary advantage. First it enhanced the human capacity for social cooperation - there is, as we have seen above, a biological preformation in humans for cooperation, but of course through culture and sociality the capacity for complex forms of cooperation is multiplied. The second adaptive advantage is that culture enables humans to adapt to new niches, situations, climates and ecologies (e.g., the development of the technology of knitting enabled humans to produce warm clothes and thus to inhabit northern climates as well as to survive the ice ages). It is therefore assumed that the development of cooperative social conditions and institutions have provided the social environment in which prosocial norms were favoured by selection and became part of the innate, genetic endowment of constituent members of cooperative societies (see also de Waal 2019).

> "People are endowed with two sets of innate predispositions, or social instincts. The first is a set of ancient instincts that we share with our primate ancestors. The ancient social instincts were shaped by the familiar evolutionary processes of kin selection and reciprocity, enabling humans to have a complex family life and frequently form strong bonds of friendship with others. The second is a set of tribal instincts that allow us to interact cooperatively with a larger, symbolically marked set of people, or tribe. The tribal instincts result from the gene-culture co-evolution of tribal scale societies by the process described above." (Richerson & Boyd 2005, p. 196-7)

These theorists assume that there is no genetically hardwired human nature, because to serve a high adaptability of humankind it is required that the cultural system be mutable, and therefore that the symbols that gave instructions for how to live in different environments needed to be just as mutable.

I have already pointed out that the above-mentioned grand theories are part of what could be called colonial thinking: the unquestioned conviction that Western, especially European culture is always superior over indigenous cultures, a belief which, as we all know, has produced devastating results for the majority of peoples in this world. Jung, though he was interested in indigenous cultures and conducted exhausting voyages to meet such peoples, was strongly embedded with his thinking in this colonial tradition. This made it difficult for him to find anything else than what fit into his system of thought.

After World War II, a general turn away from this colonial thought and its universalist viewpoint took place in anthropology towards an interpretive approach, which attempted to understand a culture out of itself. This necessarily implies interpretation and hermeneutics to be the major methodological approach in anthropology. It also means a turning away from assumptions that anthropology was something like a natural science. In this tradition (e.g., Clifford Geertz 1973) cultures or cultural products are always contextualized on the background of their historical, environmental, social etc. conditions.

Contemporary approaches in anthropology to the question of intercultural similarities

> "The existence of universal symbolic structures in the domains of myth and religion is not generally questioned by the social sciences. But neither is the universality per se of such structures the proper subject of normal social scientific discourse. To venture onto such inviting but hazardous territory is to leave behind the familiar complexity of the local sociocultural context, with its moorings in the particularities of knowable history. The theorist of the forms of universal as opposed to local knowledge is rarely processed of a disciplined ethnographic or historical imagination. Freud, Jung, and Levi-Strauss are alike vulnerable to charges of mentalism on the one hand and biologism on the other. All deny the absolute autonomy of the cultural level and all reduce its multitudinous and emergent properties to a theory of neural residues. Such theories, it must be admitted, have yet to attain the epistemological rigor of medieval alchemy." (Belmonte 1990, p. 46)

In the 19th century, theories and debates on how similarities between cultures come about, were important points of discussion. There were some theorists who saw all or most human cultures resulting from the diffusion of ideas, either by migration or by physical contact. Others took the perspective that cultures evolved independently from one another because all human beings have a similar psychological makeup, and that they therefore come up with the same solutions to social or environmental problems.

An opposite point of view was taken by the so-called **functionalist school of anthropology**, e.g., Bronislaw Malinowski, which sees society as a self-regulating system, in which religion plays a certain role, keeping up social organization, establishing hierarchies and systems of morale. Since human societies in history as well as all over the world have more or less the same social problems and are under the pressure of survival, they often develop the same solutions to these problems, which can explain similarities. In this sense religion serves the same psychological function all over the world, i.e., alleviation of anxiety in the face of life's uncertainties. But additionally, this viewpoint is criticized by contemporary anthropologists as simple guesswork, which also includes the works of Freud and his hypothesis of patricide (Beer & Fischer 2017).

The anthropologists of the functionalist school were interested in what the functions of the different elements of a culture were, e.g., magic, religion, rituals, etc. So, for example Malinowski (1948/1974), as one of the major proponents of this approach, investigated magic in the Trobriands, and found out that magic is only applied when the people do not have full control of a certain field, e.g., agriculture, by use of their tools and practices, therefore magic serves the function of gaining control (or at least to install the belief that there is control). The functionalist school assumed that elements of culture referred to a set of basic needs of humans, e.g., nutrition, security. Often the answers they found were that the elements of a culture served to strengthen the social system, solidarity etc.

Clyde Kluckhohn (1965), one of the leading anthropologists in the second half of the 20th century and a proponent of the view that the most important concept for anthropology and the understanding of human behaviour is culture, gives the following summary of the functionalist viewpoint:

> "In brief, in spite of arguments on some issues, certain basic postulates about human nature and human psychology tend to be uncritically accepted. Nor is this limited to anthropology. Elements of the same conceptual scheme underlie psychology, psychoanalysis, and learning theory. All of these disciplines reflect to greater or lesser degree the mechanism derived from classical physics, the Darwinian stress on the struggle for survival, the hedonism basic to 19th-century economics, British

empiricism, and the stress of irrational or unconscious factors…. I have maintained that anthropology, psychiatry, clinical psychology, and learning theory all tend to accept the following postulates:

1. Human behaviour is functional.
2. Behaviour always involves conflict or ambivalence.
3. Behaviour can be understood only in relation to the field or context in which it occurs.
4. Behaviour tends toward a state of maximal integration or internal consistency (homeostasis).

Theories based on these premises have markedly increased our ability to understand human behaviour and have even led to a limited capacity to predict in certain areas." (p. 260)

But Kluckhohn is also an outstanding critic of the functional viewpoint:

> "In the cultural field, it is when one comes to the all-important problem of cultural change that one sees the inadequacy of the functional approach. Functionalism is adequate to strictly structural questions but not to those of process. … Once the time variable is introduced and one tries to account for the origin of new cultural forms for the elaboration of old ones in certain directions and not others, the concepts of adaptation and adjustment do not suffice. … Functionalist anthropology has attempted to explain cultural phenomena in terms of drives and certain biological imperatives .. That the patterns of all cultures to crystallize around foci and by certain other inevitables of the human situation, no one would question. But the different ways in which various cultures have provided their standardized answers to the same fundamental problems cannot always be eliminated by showing that they are appropriate responses to the special character of each particular environment. … One of the principal difficulties with the functionalist premises, incidentally, is that they take insufficient account of the propensity toward variation in the biological stuff of human nature and hence in human behaviour. … How is one to account for the enormously diverse conceptions of time found in the cultures of the world? … Rather, conceptions of time or of the good life were surely determined in part by the accidents of history, including the genius and temperament of individuals who happen to be born at a crucial point or entered key positions in the social structure. Societies make what, for want of a more accurate word, we may call choices. Such decisions are of special importance when a new culture is being created or when old one has become relatively loose and malleable under extreme stress. But with societies, as with individuals, a crucial choice is to greater or lesser degree a determinate of later ones. Once the society starts down one road, the paths that would have opened up on another route that was physically available will seldom be traversed … We must take account of the possibility that some functional necessities of societies are referred more primarily to the collectivity rather than to the biologically derived needs of the component individuals. .. Culture is not a response to the total needs of the society but rather the system which stems from and expresses something of the basic values of the society. .. Only in part is culture an adaptive and digestive instrument."

So Kluckhohn stresses the importance of culture itself as a system that, once established, has its own dynamic in the sense of that it opens up certain developments but also closes down others. We will later see that the same viewpoint can be applied to the development of religion, in the sense that once a religion is established it develops its own dynamic, often independent from outside conditions as well as from human needs (see chapter "Religion"). The account summarized above sheds a critical view on the assumption, shared by Jung, that the development of culture can be explained by referring to human needs or other basic structures based in the biology of humans.

The viewpoint that culture itself produces a strong dynamic was even strengthened in the **structuralist school of anthropology**, which in general assumed that the repository of cultural beliefs and practices in a society, in which a person is socialized, determines to a large extent how this person acts and thinks and views the world. This set of cultural beliefs and practices transmitted from one generation to the other by ways of socialization and culturalization. Nevertheless, also in the structuralist school it was assumed that the structures transmitted by culture are, in the last end, produced by basic features of the human mind. But, they do

not rely on human nature alone, as they also stress the point of the categorization systems of cultures. Although they may mirror the basic features of the human mind, they also have their own systems of categorization and meaning, and may also differ considerably from one culture to another. The most important proponents of this approach were Levi-Strauss, who developed a complex system of describing cultural beliefs and social practices based on a system of binary oppositions, as well as Emile Durkheim and Marcel Mauss among others. Lévi-Strauss (1949), for example, focused intensively on patterns of kinship, namely rules of marriage, and found that on the one hand they include universals of human reproduction, but in their final shape are a product of culture specific rules: He found, for example, that the incest taboo is universal, whereas the specific rules from which group a bride is to be chosen are culture specific. In general, the rules which determine what is my own group and what are outsiders cannot be reduced to biological factors alone, since there are considerable differences from one culture to the other. In the development of his works Lévi-Strauss increasingly made use of linguistic comparisons for analysing the basic structures of cultures. This method of analysis was also applied to mythologies. A crucial insight is that cultural belief systems as well as mythologies differ in respect to basic values which receive a dominant role in the respective system.

Important to note, is that the same argument - culture has its own dynamic and shapes the human mind in depth - was already put forth within psychology by Jerome Bruner as early as 1990 (Bruner 1990). Bruner criticizes contemporary psychology for having forgotten that the main subject of psychology, as well as the world in which humans live, is characterized by meaning. This implies different ways of scientific analysis and theorizing would be necessary, as they are usually applied in academic psychology. Structures of meaning are fundamental for human life, and they are not provided by the biological outfit, but are transmitted in social practices of narrations. The cultural narratives that a society provides deeply shape the psyche of the individuals. This is interesting because Jung himself, even though he strongly argued for a basis of his psychology in the natural sciences, practically was occupied throughout his life with hermeneutics and the interpretation of narratives (e.g., from mythology, alchemy). This points to what already has been characterized as the scientistic self-misunderstanding of his psychology.
This central argument with all its complexity, and also its relevance for psychoanalysis in general, is summarized in the following quote from Auerbach (2014):

> "[…] arguing that psychoanalysis is essentially a science and that its questions are best answered through scientific inquiry. So if I happen to think, for example, that humans start life in a condition of relatedness or attachment, and that there is no such thing as normal autism or primary narcissism or primary autoerotism, I think so because the weight of the scientific evidence falls on one side of that particular question, rather than the other.
> But I also happen to think that psychoanalysis is a hybrid discipline and that it is a science in the service of its hermeneutics, by which I mean that it uses the methods of science to study the meanings that humans create. In this context, then, I am restricting the term *hermeneutics* to refer specifically to the study (or interpretation) of human meaning, rather than to classical and more expansive definitions of the term, which also regard it, since the time of Dilthey, as an epistemology parallel to or even competing with that of science. … in defence of the hermeneutic aspects of psychoanalysis, I am also asserting that the study of human meaning is different from, say, the study of brain function in that … minds create meanings but brains do not. One way, therefore, of characterizing psychoanalysis's

particular hermeneutics is that psychoanalysis pertains not just to human meanings but specifically to unconscious human meanings, meanings that humans have difficulty in formulating or maintaining in awareness because they are linked to basic emotions and motivations that put them in conflict with other important people in their lives. On this perspective, the aim of psychoanalysis, as a discipline, is to develop a scientific understanding of these particular unconscious human meanings and their place in human affairs, but it is these unconscious human meanings, which pertain to basic issues in human life like relatedness, sexuality, identity, and death, that make psychoanalysis of interest in the first place. … to help hermeneutically inclined readers to understand that science truly is necessary if the field of psychoanalysis is to advance and to remind scientifically inclined readers that the interpretation of unconscious meaning is why psychoanalysis matters at all." (p. 277)

"First, psychoanalysis, since the time of Freud, has aimed to study mental or psychological phenomena in a scientific manner; second, also since the time of Freud, psychoanalysis has attempted to study these things in a non-reductionistic way, one that preserves the autonomy of the psychological realm and that uses a bridging language, for too long Freud's outdated metapsychology attempted to link the psychological to the neurological. One reason that the relationship between mind and brain is likely to stay vexing and vexed is that it is probable that, for every mental event, there are likely multiple neural correlates and that, for every neural event, there are likely multiple mental correlates. … that confuses mind—the software, to use the now-overburdened computer metaphor, that creates meaning—with brain, the neural hardware that makes possible mental functions like creation of meaning. Another way of putting this is to say that minds have intentionality (in the philosophical sense), meaning, and purpose but that brains, even highly complex ones, do not and that a psychoanalytic clinician is mainly interested in the meanings that he or she and other minds in the room are cocreating, not in the neural events that underlie them." (p.281)

Human universals: Isolationism vs. Diffusionism

As much as he took an essentialist and evolutionist perspective in his archetype theory, Jung also took a universalist point of view when it came to anthropology. In line with the above-mentioned grand theories with an evolutionist background, he was also in search of universal structures to be found in all human societies and epochs, namely archetypes. Similar or at least comparable concepts in the evolutionist theories were Adolf Bastian's (1881) concept of 'elementary thoughts' (1881), "Volksgeist" (Herder), "genius of the people" (Boas), Paideuma (Frobenius) (for an overview see Beer/Fischer 2017). Already in the 19th century striking similarities in the narrative motifs of ethnic groups living far apart from each other had been apparent for a long time and from 1880 set into motion a decade-long debate about how this convergence of ideas in fairy tales and myths could be explained.

Two main models of explanation were competing for supremacy at the end of the 19th century. The diffusion and transference theory, often called diffusionism, claimed that the reason for the similarities lay in the actual physical contact between peoples in the sense of migration (Eisenstädter 1912). Some authors in this faction went as far as to assume that all peoples on earth stemmed from the same original tribe, the so called 'primal horde', which was supposedly located in an area between Caucasus and central Asia (Baumann 1936). The opposing thesis was the theory of elementary thoughts, "Völkergedanken" (Bastian 1881) which stated that the mythological convergence expresses the psychological homogeneity of all people (for a detailed discussion see chapter "Mythology"). It was precisely these thoughts, which were extremely popular in the scientific world in 1900, that Jung incorporated into psychology with his theory of archetypes.

Even contemporary Jungians arguing for the concept of the archetype, or applying it to cultural phenomena or case material, often refer to the concept of universals from anthropology, but very often - at least in my estimation - without reference to actual empirical or the state-of-the-art findings in anthropology[11]. Some authors, as for example Obrist (1990) in the following quote, present various lists of universals from different periods in the development of scientific anthropology, as if the referral to these lists would provide proof for the existence of Jung's archetypes:

'Universals of social behaviour are observed in the following areas: in the mother-child relationship, in the search for a relationship, in the formation of a hierarchy, in territorial behaviour, in the ownership and exchange of objects, in intra-species as well as curiosity/explorative aggression' (Obrist 1990, p. 112). (See the compilation of lists of universals from different authors in the attachment; thanks to Dr. Lutz Müller for providing the compilation).

There are a number of problems connected with this approach: If one does go into the relevant literature in anthropology, the surprising result is that the findings on human universals are very limited; beyond that, the universals that were found according to ethnological researchers are completely different from what, in analytical psychology, is considered to be an archetype, e.g. the anima, the wise old man, the great mother or the journey of the hero. Lastly, what is often not considered, is that in anthropology itself there has been constant controversy around the concept of universals, with the result that, in present day, accounts of anthropology as a concept have been discarded (Norenzayan & Heine 2006). This is another striking example for the problematic tendency in analytical psychology to pull out a singular finding or concept from a specific discipline and present it as proof for the theory of archetypes, without fully taking into account the academical debate and its development over time in the respective discipline.

One of the first attempts to provide a list of human universals was presented by George Peter Murdock (1945), who later became the editor of the Ethnographic Atlas, evolving into the famous Standard Cross-Cultural Sample (see below). Other lists were compiled by Kluckhohn (1953). Here are some examples from the list provided by Murdock (1945):

Bodily adornment; Community organization, cooking, courtship, education, funeral rites, games, hospitality, language, music, dance, mythology, sewer concepts, surgery, toolmaking, visiting.

The most extensive recent effort to catalogue human universals was that by Donald Brown (1991), who constructed a list of hundreds of characteristics, incorporating both categories (e.g., marriage, rituals, language) and content (e.g., fear of snakes, coyness displays, having colour terms for "black" and "white") that are common to people everywhere. Brown's (1991) 'Human universals', which gives an overview of the debate and includes all the empirical studies and theories on human universals after more than a century of anthropological research, presents the following list[12] (pp. 130-141):

[11] An exception to this is John Merchant's (2012) publication on the archetype of the wounded healer and its relations to shamanism.

[12] An overview from 1991 may seem outdated, but the relevant empirical research in the field of anthropology came to an end before that, because research into human universals needs to investigate societies which had no

> "[…] a language/system of communication, which allows for abstractions and symbolization, and enables lies, has some basic universal features on the level of grammar, and is used to create narrative and metaphor; separate terms for kin categories, including mother and father; binary discriminations, e.g. for sex terminology (even though there may be three or more basic sexes), elementary logical notions, conjectural reasoning (causality); universal recognition of facial expressions and the ability to mentalize, that is to get in the minds of others; toolmaking (note: even the use of fire is not universal!) and building of shelters; Patterns of preparation for birth, for giving birth, and for postnatal care; living in groups which claim a certain territory.
> The core of a normal family is composed of the mother and children. The biological mother is usually expected to be the social mother and usually is. On a more or less permanent basis there is usually a man (or men) involved, too, and he (or they) serve minimally to give the children a status in the community and/or to be a consort to the mother. Marriage, in the sense of a person having a publicly recognized right of sexual access to a woman deemed eligible for child bearing, is institutionalized. While the person is almost always a male, it need not necessarily be a single individual, nor even a male.
> Families have patterns of socialization, that is children aren't just left to grow up on their own; they favour their close kin, but have incest taboos to prevent sex between genetically close kin; there are statuses and roles, prestige, a division of labour, customs of cooperative labour, concepts of property etc., that is a social structure; men form the dominant element; trade, attempts to predict and plan for the future, government, leaders, laws, conflicts (usually structured around ingroup-outgroup antagonisms) and forms of conflict regulation, ideas about responsibility and intentionality, etiquette and hospitality including customary greetings and customs of visiting kin and others, religious or supernatural beliefs, e.g. around disease and death, and the practice of magic; rituals, especially initiation rites/rites de passage and mourning of dead; aesthetic standards, e.g. how to adorn bodies or shape hair, standards around sexual attractiveness, decorative art, dance and music."

It is obvious that these lists present very broad and general categories, e.g., that **there is** language, dance and music, that **there are** social hierarchies, but there are no specifications. It is very clear that these empirically found universals have nothing to do with the archetypes of analytical psychology.

More interesting than what is included in the list, is what is not included. For example, it has to be noted that the only rituals that seem to be universal are around marriage, initiation, and mourning of the dead. Many people think, for example, that there are universals to child-rearing, which is actually not the case. Even though this is so basic to human beings, no universal structures around child-rearing could be found (Ahnert, 2010).

And even a proponent of the universalist point of view such as Brown argues:

> "For a considerable period the term universal was used without anyone thinking it needed to be defined. During that period the implicit definition was approximately as follows: a trait or complex present in all individuals (or all individuals of a particular sex and age range), or societies, or cultures, or all languages, provided that the trade or complex is not too obviously anatomical or physiological or too remote from the higher mental functions. … I write at, and am a product of, a time when the distinction [between biology and culture] remains fundamental to most anthropologists - even though it is vaguely and falsely conceived. Nothing in human culture comes into being or gets transmitted without consideration of the specifically human genetic makeup. Yet significant aspects of human anatomy and physiology can only be fully understood with some consideration of human culture, which always and everywhere is a crucial part of the environment that interacts with human genes to produce human organisms. Any prophetically conceived boundary between the thoroughly genetically determined and the not too obviously biological is more likely to be a boundary between what has and what has not been interesting to anthropologists." (Brown, 1991, page 42)

- or at least not much - contact with civilization. It is very unlikely that in the meantime strikingly new insights were found in the field.

And Brown, in this paper, has obviously no problem to argue that many of the universals in his list are transmitted by ways of cultural exchange and socialization.

> "A relatively small number of causal processes or conditions appear to account for most if not all universals. These processes or conditions are
>
> 1) the diffusion of ancient (and generally very useful) cultural traits,
> 2) cultural reflection of physical fact,
> 3) the operation and structure of the human mind, and (behind the latter)
> 4) the evolution of the human mind."
>
> (Brown 1991, p. 148)

An important exception to the general rule that human universals are very general and basic, lacking specification is: the striking similarities in fairy tales and myths found all over the world, which were well investigated in anthropology (Aarne & Thompson, 1964). These will be dealt with in a special chapter on "Mythology" (see below).

An important question, which is often not addressed in Jungian publications that make use of the concept of human universals, is how the term universal is actually defined: does universal mean the element has to appear everywhere in the world, in every culture and in every individual (which would be an absolute universal in the terminology of Brown)? And if not in every individual, to which percentage of distribution can we talk about an element being universal?
The question of definition is discussed in detail in Brown's papers (1999, 2000). In his paper "Human universals, human nature & human culture" (Brown 2004) he summarizes the findings from the publications mentioned above:

> "While some universals are or seem to be relatively simple, others are complexes or syndromes (no implication of illness intended). Ethnocentrism and romantic love are examples: both are best understood as complexes or syndromes rather than simple traits or behaviours.
> Many universals have a collective rather than individual referent. Thus music and dance are found in all societies, but not all individuals dance or make music. Child-rearing occurs in all societies, but not all persons rear children.
> Yet other universals are found in all (normal) individuals, although sometimes only in one sex or the other or in particular age ranges. Thus women everywhere predominate in child care and on average are younger than their mates. Children everywhere acquire language with prodigious skill, but adults do not. On the other hand, above the age of infancy everyone employs gestures and such elementary logical concepts as not, and, or, kind of, greater/lesser, part/whole, etc.; everyone classifies; everyone has likes and dislikes.
> Universals at the level of the individual are particularly likely to be close to human nature or to be actual elements of human nature--at the core of which are the evolved problem-solving mechanisms that constitute the human mind. … There are severe methodological limitations on what can be known about universals in general. No one can really know the conditions in all societies, so that any statement about universality is based on some sort of sampling. In most cases this sampling has not been rigorous. Furthermore, the precision with which a real or alleged universal has been described often leaves much to be desired, in part because the original reports or descriptions were provided by different observers and sometimes at widely spaced intervals in time. Thus the confidence one can have in particular claims of universality is quite variable. Given the costs involved in studying even a single society, this range of problems will persist. …
> But only rarely have psychologists conducted their research outside the modernized and mostly western world, so that the cross-cultural validity of the numerous mental processes and traits that they have identified is often in doubt. And some cross-cultural research has indeed shown that psychological phenomena that one might think are unaffected by cultural differences--the perception

> of certain optical illusions, for example--are in fact not universal (many other examples could be given). …
> Examples of universals of psyche or mind that were determined by cross-cultural study but without evolutionary theorizing are dichotomization or binary discriminations, the language acquisition device (as described by the linguist Noam Chomsky), emotions, classification, elementary logical concepts, psychological defence mechanisms, ethnocentrism or in-group bias, and reciprocity as a mechanism for bonding individuals to one another.
> Among the universals identified more recently through testing evolutionary propositions are a facial-template-constructing mechanism that generates a preference for faces that are near the population mean, a social-cheater-detecting mechanism, a mental mechanism for thinking about "human kinds," and a preference in males for skin colours in females that are lighter than the mean (because in the past it correlated with fecundity). Incest avoidance--a phenomenon found in many animal species as well as humans--straddles the boundary, as it is an evolution-minded re-thinking of what for long was one of the most frequently discussed and prototypically cultural human universals: the incest taboo." (pp. 48-50)
> (There is a detailed discussion below, of the incest taboo and other allegedly universal entities which are of interest to analytical psychology and archetype theory.)

There is no doubt that the human being is not a tabula rasa at birth. Nowadays nobody denies that there is an inborn capacity in children to learn language and grammar (language acquisition device), as well as a certain preparedness to be frightened of specific things, e.g., spiders (for an overview see Roesler 2021). In the chapter on biology the empirical findings on innate mental capacities were already presented in detail. Again, the state-of-the-art findings in anthropology make clearly exemplify that the universals being found – and which are, additionally, subject to a fundamental controversy about whether it makes sense at all to look for such universals (Norenzayan & Heine 2006) – have nothing to do with the archetypes of Jungian psychology. It would also make no sense to use the term archetype for these universals, since it is very clear that these are very basic and far from what in Jungian psychology is regarded as an archetype (e.g., the myth of the hero), so it would only continue the confusion that was found in the definition of archetypes.
These problems, together with the fundamental misconception inherent in Jung's approach to anthropology, were pointed out earlier by critics from outside of analytical psychology, such as Petzold et al. (2014):

> "This assertion of the culturally overlapping meaning of archetypes must, therefore, also be critically considered. C. G. Jung assumes a collective unconscious of the human species, but it is based rather on culturally determined interiorised collectivities, for which Moscovicis' (2001) socio-psychological conception of a 'collective mental representation' – conscious, preconscious, unconscious mentalisations – offers an alternative for the explanation of myth forming structural elements (archetypes)" (p. 439f.).

Subsequently, the authors give numerous examples of the same elements or symbols in various cultures having completely different meanings based on geographic or climate conditions. For example, in the north the sun contains a warmth giving motherly power, while in desert areas it contains threatening character and is assigned to the area of evil. It is argued further:

> "The assumption of, as it were, genetically predisposed mythologems and archetypes of heroes and goddesses even comes into the realm of mythotropic conceptualization. What is powerful in archetypes, myths, and symbols must be current in the collective mental representation and passed down in a process of socio-historical transmission, otherwise it is not present. The attempt by Kerenyi, together with C. G. Jung, to see the figures of Greek mythology as pre-images of the human soul must,

in addition to the criticism that it takes too little account of the socio-historical and socio-economic conditions of the ancient world or that it does not seek to create a connection between explanations in terms of mental history, counter the Eurocentrism associated with recourse to antiquity" (p. 441).

Universalism vs. Cultural Relativism/Particularism

The search for universals in anthropology was part of a general approach termed Universalism, which was opposed by the viewpoint of Cultural Relativism or Particularism: as soon as anthropologists, instead of searching for universals, started to systematically look for differences that are dependent on cultural backgrounds, it became clear that the impact of culture is enormous, in fact it shapes the psyche's fundamentals, the personality and the self (Marcus & Kitayama 1991, 1998; Richerson & Boyd 2005; for an overview see Norenzayan & Heine 2006). The influence of culture can even be found in the imagery and the general shape of dreams which reflect cultural viewpoints on the self, individuality and development of the personality (Roesler, Konakawa & Tanaka 2021). As a result, the efforts to discern and taxonomize the universal human have been highly controversial throughout the history of anthropology. Some have questioned whether interesting human universals really exist (e.g., Benedict, 1934), and others argued that such efforts to identify the lowest common denominator of humankind are either misguided, or of dubious value (e.g., Geertz, 1973). More recently, a growing number of voices in cultural anthropology have adopted a post-structuralist perspective, emphasizing the fluidity and ambiguity of culture. There is a marked scepticism in this view towards generalizing from the individual level to the cultural level, let alone generalizing to the level of what is universally human (for an overview see Norenzayan & Heine 2006). One important insight to be pointed out: the biological development of humans cannot be thought of without taking into account the pre-existence of culture. As we have already seen in the chapter on biology, the genetical make-up of humans is oriented towards culture and society and incorporates deeply the social relationships and societal structures in which it develops, so that one could say: the environment of evolutionary adaptedness of humans is culture and society, and not specific natural environments, as they are for animals. What is characteristic of humans is not that they are driven by certain instinctual motivations, which is more characteristic of animals, but their enormous adaptability and flexibility, their capability to adapt to practically all environments by use of cultural and technological achievements – humans can even permanently stay in outer space and will soon be able to survive on the moon and maybe on Mars. This enormous adaptability is reflected in the equally enormous plasticity of the human brain.

The empirical foundation for human universals

Although the search for human universals may seem, on the base of the above discussion, a bit outdated, it may still be interesting for Jungians to learn about the actual empirical findings concerning such universals. In contrast to the grand theories that were characteristic of the 19th and the beginning of the 20th century – in which Jung's thought was deeply embedded – beginning in the 1930s and 40s a wealth of proper empirical descriptions of indigenous

societies was accumulated, allowing for a more precise answer to the question about human universals in this age.

> "Among the many questions that anthropologists ask about humanity are the following: are there characteristics that are found in all human societies, what we might call human universals? And when we look at universals, or at least at very widespread features, what are the ranges of variation? Returning to the example of marriage, we could ask the following questions: is marriage found in all human societies? And what are the various forms that marriage takes? We might ask similar questions about religion. To answer these questions, anthropologists go out into the field, study particular communities, and write reports describing these communities. Questions of universality and variability can be answered on the basis of descriptions of hundreds of human societies." (Stein & Stein, 2008, p.3).

Explanatory systems, in the sense of universalist versus culturally relativist approaches, must to be tested thoroughly with the available data. Today, not only considerable masses of ethnographic data are available, they are also accessible in systematized comparative samples such as the ones presented below. These can be investigated systematically regarding certain questions or comparisons focusing on assumed similarities.

Standard Cross Cultural Sample

The anthropologist George Peter Murdock, mentioned above, very early in the development of systematic comparative studies developed a list of human universals (see above), which overtime developed into the so-called Ethnografic Atlas (Murdock 1967). This later became a university based databank of detailed descriptions of independent indigenous societies, the **Standard Cross-Cultural Sample,** a sample of 186 cultures used by scholars engaged in cross-cultural studies.

> "Cross-cultural research entails a particular statistical problem, known as Galton's problem: tests of functional relationships (for example, a test of the hypothesis that societies with pronounced male dominance are more warlike) can be confounded because the samples of cultures are not independent. Traits can be associated not only because they are functionally related, but because they were transmitted together either through cross-cultural borrowing or through descent from a common cultural ancestor. George Peter Murdock attempted to tackle Galton's problem by developing a sample of cultures relatively independent from each other—i.e., with relatively weak phylogenetic and cultural diffusion relationships. Murdock began with the twelve hundred or so peoples in his *Ethnographic Atlas* (Murdock, 1967), dividing them into roughly 200 "sampling provinces" of closely related cultures. Murdock and Douglas R. White chose one particularly well-documented culture from each sampling province to create the Standard Cross-Cultural Sample (SCCS) (Murdock and White, 1969). The number of cultures is large and varied enough to provide a sound basis for statistical analysis; the sample includes 186 cultures, ranging from contemporary hunter gatherers (e.g., the Mbuti), to early historic states (e.g., the Romans), to contemporary industrial peoples (e.g., the Russians). Scholars engaging in statistical cross-cultural analysis are encouraged to use the set of cultures in the SCCS, since each new study adds to the number of coded variables capable of being used with already existing variables. By focusing scholarly attention on this sample of 186 cultures, the data have steadily improved in scope and quality. The open access electronic journal World Cultures .. functions as the repository of the SCCS, archiving the now nearly 2000 coded variables and publishing a number of papers on cross-cultural methodology. … Murdock also founded the Human Relations Area Files (HRAF) at Yale University in the 1940s. However, the SCCS contains a different set of cultures, uses a different set of ethnographic sources, and can be considered entirely distinct from the HRAF." (https://en.wikipedia.org/wiki/Standard_Cross-Cultural_Sample)

Human Relations Area Files

> "Development of the HRAF Collections began with the belief that valid generalizations about human behaviour, society and culture will only come from studying humans in all their variety, not just humans closest to home. In 1935 at the interdisciplinary Institute of Human Relations, Yale University, under the direction of the Institute's Director, Mark A. May, and Professor George Peter Murdock, a small group of researchers began to design a system that would allow the rapid retrieval of information on a broad range of societies. The effort that began at the Institute was called the Cross-Cultural Survey. It then became the HRAF Collection of Ethnography (often called for short the "HRAF Files"). Although it does not yet contain all the materials in the whole collection, eHRAF World Cultures is the online version.
> The Cross-Cultural Survey was based on a number of principles, the most important of which were: 1) develop a subject-indexing system that would help researchers find materials within documents; 2) collect information on the cultures of the world; 3) use human intelligence to index cultural, behavioral, and background information on a society down to the page and paragraph level; and 4) organize the materials by region, culture, and subject in one location.
> The first step was to develop a subject classification system, the Outline of Cultural Materials (OCM) and an Outline of World Cultures (OWC). Each has undergone many revisions. The OWC was intended to be a reasonably complete list of the world's cultures, but it was never intended that all cultures would be included in the HRAF Collection of Ethnography. Rather the aim was for 400 societies around the world to give sufficient diversity.
> On February 1, 2008, HRAF began hosting its own application retitled eHRAF World Cultures. … Today, almost 400 colleges, universities, libraries, museums, and research institutions in the United States and 25 other countries have full or partial access to the Collection of Ethnography. … For over 60 years, HRAF has served the educational community and contributed to an understanding of world cultures by assembling, indexing, and providing access to primary research materials relevant to the social sciences, and by stimulating and facilitating training and research in these fields." (https://hraf.yale.edu/about/history-and-development/)

Both databanks can be accessed online, the SCCS by its open access online journal World Cultures, eHRAF World Cultures via Yale University: https://hraf.yale.edu.
When using these databanks for studying specific similarities across cultures, it quickly becomes clear that the list of true universals is firstly very limited, and secondly very basic. Additionally, the majority of these similarities can well be explained by geographical closeness, similar environmental conditions or reciprocal cultural influences between similar cultures (Beer & Fischer 2017).

> "The degree of formal similarity observed among independent sociocultural units is a direct measure of the degree of genetic or affiliation or cultural relationship among the units being compared." (Binford 1971, p. 9)

In the following, I will provide detailed examples with a discussion based on the available literature in anthropology, as well as analyses based on the above mentioned databanks.

Religion

Religion is universal. Among the many theories that have tried to explain this phenomenon there are also biological, respectively evolutionary, approaches which argue, more or less in the same manner as Jung does, with the similar makeup of the human brain. There are even theories that argue for a religious gene or a number of such genes - the so-called God Module - but this approach has been criticized strongly and can, on the base of contemporary research in genetics, be discarded (Stein & Stein 2008). What is universal is the fact that there is religion,

but the contents of the specific religions are definitely not universal. Nevertheless, for a discussion of archetype theory, religion is such a crucial field with such far-reaching implications for an evaluation of analytical psychology as a whole, for the topic will be dealt with in a special chapter below.

Incest taboo

There is, presumably, no other concept of such importance for the historical development of the psychoanalytic schools as the incest taboo. And, in fact, it seems to be a universal motif or idea. In a comparative study of 50 randomly selected cultures, the motif of incest can be found in 39 of these mythologies (Kluckhohn 1960). It has always been argued, that the incest taboo has a biological basis, in the sense that it inhibits genetic defects in offspring from biologically close relatives. But the matter seems to be more complex: as the detailed ethological and anthropological investigation by Bischof (2020), "The riddle Oedipus" demonstrates. There is a variety of rules around incest and sexual relations of close relatives in different cultures. In some cultures these relations are even supported, as they are thought to produce supernatural powers. This is evidence for the fact that these biological inhibitions can be transcended by societal rules. The author provides an explanation based on general systems theory/kybernetics which makes no use of any biological predeterminations. In that sense, he points out, the incest taboo is a cultural achievement.

Chapais (2011) has tried to explain the universality of the incest taboo as an evolutionary achievement, linking human development with patterns in primates. This approach was strongly criticized from many sides in anthropology (e.g., Barnard 2014), based on the insight that the incest taboo is a product of categorization, in terms of kinship, which is not to be found in primates. In general, the existence of an incest taboo is often discussed in anthropology in connection with kinship patterns. In the works of Levi-Strauss (1949/1969) kinship patterns are regarded as one of the major categorization principles which characterize human culture. So, although we have seen above that a tendency to categorize seems to be an innate capacity of humans, the structures and contents of the categories applied are consensually seen as a cultural product, and can show considerable intercultural variation.

The incest taboo has often been linked in anthropology with initiation rites: Jung, for example, was strongly influenced by Freud's theory of the Oedipus complex and thus saw male initiation rites as serving the function to resolve Oedipal conflicts, as well as establishing masculine identity. He contends that in societies, where the mother-son bond is particularly strong, elaborate and painful ceremonies are needed to vigorously and decisively break a male child's identification with his mother (and hence with other women). Furthermore, to install him in the psychological and social company of his father's group. This arguably explains why initiation rites seem more important for males than for females. This view is in line with functional viewpoints in anthropology – and surprisingly in contrast to Jung's usual biological reasoning - which argue that initiation ceremonies and their cross-cultural similarities are viewed from the perspective of their social function (Young 1965). Initiation rites will be extensively discussed in the chapter "Religion".

Burials and funeral rites

Concerning burials and the accompanying rituals, a search in databanks as well as in literature shows great variability, as well as in the understanding of death and the hereafter connected with the ways of dealing with the dead - societies were even found, which have now vanished, that disposed of their dead with the garbage.

> "Funeral rituals differ from other rituals in one major respect: there is a dead body. All societies have ways of disposing of the corpse in one way or another. Burial is quite common, but there are a number of variables such as where the grave is located, what the body is buried in, what objects are buried with the body, and so on. Bodies can also be placed in trees to decay, and later the remains may be cleaned and buried. Bodies can be cremated, and the remains kept in a container, buried, or scattered at sea. Among the Yanomamö of Venezuela and Brazil, the cremated remains are ground into a powder. At various times after a person's death, the family gathers together and prepares a banana stew into which some of the cremated ashes are mixed. Then they drink the mixture. And, of course, as we saw with the Fore, there is the custom of eating the body." (Stein & Stein, 2008, p. 11)

The authors give a list of a variety of forms of burials and funeral rites. Different forms of burial exist: in specialized graveyards, in necropolis, but also close to or even beneath the floor of the house. The custom of secondary burials exists in certain regions. This means there is a first burial following the death of the person. Then after some time, when the corpse has decayed, the bones are gathered from the ground and buried a second time, sometimes in special houses; in some cases these specialized houses are even divided in places for the skulls and places for the rest of the bones. In contrast to burials, there is cremation, and there is also a variety of forms to dispose of the ashes: some preserve them in boxes, others scatter them over the sea or into the wind etc. Then there is mummification and exposure of the body, either to the elements of nature or to be consumed by animals. Even though this may seem archaic, this custom is still used in the very highly developed religion of the Zoroastrians in Iran. This also demonstrates that the archaism of a specific burial rite is not necessarily connected with the complexity level of the respective religion.

> "Death rituals or funerals are rites of passage that moved the individual from the status of living person to that of ancestor or other post death status. Funeral severe right among cultures in a number of ways: the form of expression of grief, the role of the ritual in terms of what will happen to the individual in the afterlife, the ritual ways in which the family and community separate themselves from the dead to avoid contamination or illness, how the living are reorganized in society to accommodate for the absence of the deceased, and the method of disposal of the corpse." (Stein & Stein 2008, p. 194)

For example: in the prairie tribes of the Native Americans, a very long time of mourning for the dead is common, whereas in the Pueblo peoples the deceased are supposed to be quickly forgotten. It has even been argued that the existence of forms of burials do not necessarily imply that there is an idea of a hereafter or life beyond; it could also be an expression of the difficulties the living have with letting go of their dead relatives (Wunn 2019). This could also be the reason why, in some cultures, the remains of the dead relatives are buried below the floors of the houses, so as to keep them close to the world of the living (see also chapter "Prehistory").

Mating behaviour, couple bonding, and marriage rules

As was pointed out above (see chapter “Biology”), there seems to be a biological basis for the human tendency to form stable, long-term, monogamous couple bonds. In a study conducted with the Standard Cross-Cultural Sample (see above), it was found that in the over 850 societies investigated, in which more than 80% theoretically allowed for polygamy (which means that men in marriages are allowed to be married to more than one wife), only a minority of 5 to 10% of the men acted on this (Fletcher 2013). 70% of all the hunter gatherer societies in this sample were mainly monogamous, allowing only slightly for polygamy. The theory behind these findings is, that in the development of Homo sapiens, early hunter gatherer societies tended to be more polygamous, whereas with growing cultural differentiation, cooperation and the development of technology, the societies become more and more monogamous. In this context, an interesting finding is that the highest percentage of polygamist societies - and in that sense less-developed, i.e. more characterized by hunting gathering economies - is found in Australia. This would speak for the hypothesis, that immigration into the Australian continent via the South Asian/Indonesian land bridge, which ended about 40,000 years ago, created a more ‘primitive’ hunter gatherer society in Australia compared to the development in Eurasia. Also, genome analyses of the ancestry of several hunter gatherer societies speak for the fact that monogamy was the dominant couple model since the emigration of Homo Sapiens from Africa 60,000 years ago and was transferred from there all over the world (Müller-Schneider 2019, pp. 93-98) (see also chapter “Prehistory”).
There is another social advantage which arises from monogamous couple bonds: in combination with the incest taboo (see above), marriage rules lead to the fact that different social groups, e.g., hunter gatherer groups, become connected through kinship relationships. This supports the development of larger societies and civilizations and is a hindrance to continuous warfare, which would have weakened early human societies. So, there is no empirical support for the widespread prejudice of the “promiscuous primal horde“ or the idea, also present in Jung, that humans originally had a promiscuous and polygamous orientation.
These findings demonstrate that there seems to be, at least on a very basic level, a biological basis for human couple bonding. Still, monogamous marriages are by far not universal; more than 20% of the world‘s indigenous societies practice other models. Also, as was demonstrated above, the reasons that these models have developed are not only biological but result from the development of societies and the social problems they have to deal with. So in sum, these findings do not support the idea of an archetype of marriage/monogamy, at least not in the sense of an autochthonous development all over the world. Another finding also speaks against this assumption: there are some societies in the world which have polyandrous models of couple bonding, which means that one woman is married to several men. The societies are almost exclusively to be found in the region of Tibet and the surrounding Himalayas. This provides strong support for the assumption, that seemingly archetypal patterns have been distributed via migration and cultural exchange.

Jung on sexuality, marriage and relationships in general

In general, Jung dealt with marriage and couple relationships more on the level of symbols and symbolic meanings. There is one well-known exception: his text "Die Ehe als psychologische Beziehung" (Marriage as a psychological relationship) (1925, GW 17). It has to be noted, that there is a specific historical background to the genesis of this text: in contrast to the time after the break with Freud and the subsequent retreat from social contexts, when dealing with his inner turmoil, which was followed by the time of the First World War, in the 1920s Jung attempted to intensify academical contacts to scholars whose work was interesting for him. One of these was Graf von Kayserling (Bair 2003). When he made contact, von Kayserling invited Jung to participate in a conference on marriage and couple relationships, and asked him to present a paper. Although this may not have been Jung's major field of interest, he – seemingly very quickly – prepared a paper and attended the conference. The paper later was added to the collected works. Therefore, some scholars have speculated that the model presented in this text should not be overemphasized in its importance for Jung's thinking in general, but may be more representative for his personal problems and connected thoughts around the topic at that time (Bair 2003).
In the text, Jung presents the following model of marriage: in a couple there is a container and a contained, with the container being the greater mind and the other the smaller. Since the greater mind contains the smaller, this person does not get fulfilled completely, which to Jung means that this partner automatically "looks out of the window". In the same line Jung also states his views on sexuality: "Viele Frauen haben keinerlei Verständnis für die männliche Sexualität – sie sind zudem ihrer eigenen völlig unbewusst. Bei Männern ist das anders. Sexualität kommt über sie wie ein Sturm" (Many women have no understanding of male sexuality – they are also totally unconscious of their own. Men are different. Sexuality comes over them like a storm; CW 17, para 330, transl. CR). Again, this view reflects widespread theories of male and female sexuality typical for the 19th century – and thus outdated even in Jung's time - as stated for example in the famous book on the topic by Krafft-Ebing:

"Ohne Zweifel hat der Mann ein lebhafteres geschlechtliches Bedürfnis als das Weib. Folge leistend einem mächtigen Naturtrieb, begehrt er von einem gewissen Alter an ein Weib. Anders das Weib. Ist es geistig normal entwickelt und wohlerzogen, so ist sein sinnliches Verlangen ein geringes. Wäre dem nicht so, so müsste die ganze Welt ein Bordell und Ehe und Familie undenkbar sein. Jedenfalls sind der Mann, welcher das Weib flieht, und das Weib, welches dem Geschlechtsgenusse nachgeht, abnorme Erscheinungen." (Krafft-Ebing 1886, S. 12 f.) (Without any doubt, the man has a livelier sexual need than the female. Following a powerful biological drive, from a certain age he desires a woman. The woman, in contrast, if she is mentally normally developed and well-educated, has only a small sexual desire. If that were not so, the whole world would be a brothel, and marriage and family would be unthinkable. In any case are the man who flees the woman and the woman who desires sexuality abnormal appearances. Transl. CR)

Taken together, Jung concludes, this state of affairs leads the man to look elsewhere for satisfaction. It is obvious that Jung not only describes his own marriage from his perspective but at the same time justifies the affair he had over decades with Toni Wolff, among others. It is well known and documented, that Emma Jung wished to divorce from her husband at least three times and suffered extremely for many years because of his rejection (Bair 2003, Healy 2017). This year-long suffering was confirmed by many of Jung's followers, for example Ruth Bailey, Peter Baynes and others. Fowler McCormick: "There isn't the slightest doubt in my mind that this relationship was a torture and a painful thing for Mrs. Jung to bear." (Healy 2017, p. 155). Different commentators suspected that the reason she did not divorce her

husband, was the fact that she would have lost her whole capital, as this had, according to Swiss law, become her husband's when they married. Jung did not only expect his wife to endure him having an affair, he also enacted the affair in public. He forced his wife to include his mistress into their household, which was an act of psychological cruelty. Emma only had the evenings to spend with her husband, and even then she was only allowed to sit quietly in his room and read while he was working on his texts or reading a detective novel. There were no conversations (Bair 2003).
So, as far as it concerns his wife, he seemingly did not show any compassion, nor did he take any responsibility for his actions and affairs:
"What could you expect from me? – the Anima bit me in the forehead and would not let go." (Bair 2003, S. 248) – which implies: the archetype is always overpowering and inevitably imposes its will on the person, there is no personal responsibility.
There are several psychoanalytic investigations focusing on the question why Jung acted this way and what this has to do with his early relationships (Winnicott 1964, Smith 1996, Atwood & Stolorow 1975). This is not the place to expand this question, I would merely like to point out the main argument here: all of the authors agree that Jung suffered a lot from his mother's depression and periods of her hospitalization, and tended to turn to his nanny instead, a triangle which he reproduced in his marriage. The suffering he caused to his wife can be interpreted as a form of retaliation towards his ("the") mother.
At first Jung tried to analyze his wife himself, with the hope that it would make her a more interesting person for him. This attempt failed. After that he wrote a letter to Freud on January 1st 1910: "Die Voraussetzung einer guten Ehe, so scheint mir, ist die Erlaubnis untreu zu sein" (The precondition for a good marriage, it seems to me, is the possibility to be unfaithful; transl. by the author) (Jung 2012). Jung stated at different times of his life explicitly that a man had a right to be unfaithful: "I need more than one wife" (C.G. Jung Oral History Archive at the Countway Library; https://cms.www.countway.harvard.edu/wp/?p=3208). In the years around 1910 Jung was obviously very much occupied with the question, where a man was to turn to with his sexual needs. This can be seen in different essays from that time, where Jung occupies himself with authors that plead for a sexual liberation (Healy 2017, p.67). Jung even goes as far as arguing, that in his view the free expression of sexuality is essential for the individuation process. This attitude to the subject disappeared after the affair with Toni Wolff began. Interestingly enough, when revising these texts for publication in the collected works, Jung took out the passages in question about sexuality. Here an example, which was later taken out:
"Instead of waging war on himself it is surely better for a man to learn to tolerate himself, and to convert his inner difficulties into real experiences instead of expanding them in useless fantasies. Then at least he lives, and does not waste his life in fruitless struggles."
(Healy 2017, p. 69)

Male and female societal roles, power and dominance

Sanday (1981), in her book "Female power and male dominance: on the origins of sexual inequality", systematically investigated gender roles by making use of the Standard Cross-Cultural Sample, in order to look at the cultural context of sex-role configurations. Of the 186 societies which were included in the sample, 156 could be used for direct comparisons. One insight was, that in regulating secular power and dividing it between the genders, sacred

symbols played a crucial role. Also, many religions deal with the question of how the differences between the sexes came about and how men and women should relate to one another and to their environment. The author comes to the conclusion "that male dominance is not an inherent quality in human sex-role plans, as many feminist writers of the 1970s had assumed, but a response to particular environmental pressures, whether social or physical." (Bowie 2004, p. 130). Sanday found that in many cultures female is associated with nature, whereas male is associated with culture and dominance. Nevertheless, the author points to the permeability between the categories of female and nature in some societies, but not all, and secondarily men are not unequivocally aligned with culture, so that in a number of societies there is a reciprocal flow regarding the power roles.

> "The variations in sex-role plans found in different societies show that they are cultural constructions rather than genetic … Historical and political factors, as well as the environment in which people live, will affect the ways in which they interact. Sex-role plans will in turn change the social and natural environment." (Bowie 2004, p. 131)

Hewlett & Hewlett (2008) provide an example for this culturally influenced diversity by comparing African hunter gatherer (Aka) versus agricultural (Ngandu) societies, which live geographically closely together. Looking at sex roles, love and couple bonding, they found:
In the Aka hunter gatherer society, there is equality on all levels, couples are monogamous in majority, have an emotional style of bonding with flexible roles; men are involved in child-rearing and education in the same manner as women. The search for nutrition is equally divided between men and women; all everyday activities happen together and violence between partners is very rare.
In the Ngandu agricultural society very rigid hierarchies, rules etc. exist, with a strong ancestor cult; marriages are often polygamist and relationships rely on material support with very rigid sex roles; child-rearing and education happens exclusively through women and elder siblings, and also the provision of nutrition is in the responsibility of women; meals are taken separately, while men receive more calories, and often also sleeping happened separately; marital violence is widespread.

Conclusion[13]

It can be summarized, that in the field of anthropology, Jung referred to theories which were highly problematic, from a contemporary point of view even flawed, and which were outdated and strongly criticized even in Jung's lifetime. From these, Jung also favoured the most problematic, namely Bachofen's and Frazer's. Beyond that, these theories, and as a consequence also Jung's thoughts, contained racist elements, as they are part of what has been characterized as colonial thinking, i.e., a devaluation of indigenous societies as being on a lower level of cultural as well as psychological development.
In the summary of contemporary viewpoints and insights in the field of anthropology, it was clarified that these take a view on cultural characteristics being largely influenced by

[13] The findings on anthropology presented in this report were discussed in detail and confirmed by interview with Prof. Dr. Michael Bollig, Department of Social and Cultural Anthropology, Universität Köln/Germany, a specialist for intercultural comparison and comparative ethnology.

environmental and context conditions, and also by developments on a societal level, and not so much by the biological makeup of humans. Adaptability itself is seen as the truly human characteristic. In so far, cultures are always adaptations to certain environments and conditions, as well as to certain societal structures and ideas and beliefs about hierarchies, sex roles etc. A seemingly archaic indigenous tribe, e.g., San bushmen, can be seen as better adapted to their environment than e.g. civilized Europeans.

In general, contemporary anthropological theories emphasize diversity and question the assumption of universality of basic characteristics of human societies. Even where universals were found and are still supported by contemporary viewpoints in anthropology, these empirically supported universals can by no means be equated with Jung's archetypes or used as 'proof' for archetype theory. The universals in the sense of cultural patterns and symbols that Jung claims to be (e.g., in Jung et al. 1964), actually do not exist!

This tendency to emphasize the impact of dynamics on a societal and cultural level over biological influences, which can be found also in theories from the first half of the 20th century, has gained more and more influence in the development of anthropology. It points to a problem – as far as I can see – in Jung to take into account sociological and cultural perspectives. It is well-known that Jung was critical of the dynamics of groups and emphasized the role of the individual in psychological as well as cultural development. I would go as far as stating that Jung had considerable difficulties to include – maybe even to understand – sociological argumentations, as can be seen for example in his negative attitude towards Durkheim's theory, which is still regarded as valuable in contemporary sociology. To put it very simply: Jung always regarded biology as more important than culture, and seems to have had no theoretical understanding of the dynamics of society and culture, whereas in anthropology in general there has been a seminal shift from the emphasis on evolutionary factors to today's emphasis on contextual factors and dynamics inherent in societal structures and cultures themselves. I assume that this owes to Jung's academical training as a physician, and thus as a natural scientist, which seemingly limited his knowledge and understanding of theorising from the viewpoint of social and cultural sciences. In this sense, Jung's anthropology does not transcend the limits of evolutionary biology, and thus gets entangled in the contradictions and errors outlined above, whereas anthropology at least from the mid-20th century on has become a science of culture.

I would therefore conclude, that what was defined as Theory 2 inherent in Jung's theorizing around archetypes (an anthropological theory about human universals which come about through the biological makeup of humans including the assumption of homology of phylogeny and ontogeny; see chapter 3), has to be regarded as refuted, if not deeply flawed and misconceptualized from the beginning. Furthermore, I would propose not to use the term archetype anymore for any kinds of anthropologically defined human universals, if there are any, as this would further continue the confusion around the definition of the term archetype, as pointed out above. Instead of continuing the misleading use of the term archetype for the investigation of cultural similarities and characteristics, - which I still see as one of the major topics of analytical psychology – I would propose to use the concept of cultural complexes for this kind of research. The concept of cultural complexes, as presented by Singer & Kimbles (2004a, 2004b), is very much in line with contemporary theories in the social sciences and in

cultural studies; it is much more careful than archetype theory in making far-reaching assumptions; it has a clear definition and methodology; finally, it succeeds in including an analytical viewpoint on unconscious factors into a useful interpretation scheme for societal and cultural phenomena (see also final chapter).

7 Religion

> *"Rebirth is an affirmation that must be counted among the primordial affirmations of mankind. These primordial affirmations are based on what I call archetypes. In view of the fact that all affirmations relating to the sphere of the suprasensual are, in the last analysis, invariably determined by archetypes, it is not surprising that a concurrence of affirmation concerning rebirth can be found among the most widely differing peoples" (CW 9/1, para. 207)*
>
> "One can standardize the words taken from a primitive vernacular, like totem, and use it to describe phenomena among other peoples which resemble what it refers to in its original home; but this can be the cause of great confusion, because the resemblances may be superficial, and the phenomena in question so diversified that the term loses all meaning. " (Evans-Pritchard, 1972, P. 12)

It has already become clear in the chapter on anthropology, that Jung's ideas about universalities and cross cultural similarities also refer to the field of religion; on the other hand, in comparison to the universals already discussed above, the field of religion has its own dynamics and peculiarities, which will be dealt with below in detail. Jung published extensively on religion, the above quote stems from his text on the – assumed – archetype of rebirth, which is explicitly a religious concept. It will be pointed out below, with reference to comparative studies in religion, that the idea of rebirth is not universal, as Jung claims.

Jung's impact on religious studies has been and still is immense (Dourley 1990). Unfortunately, it cannot be said that the same is true vice versa, which means that since Jung's days analytical psychology has only very little taken into account the developments in religious studies, at least not when it comes to archetype theory.

Eliade's monolithic approach and its legacy

When we investigate the field of religion, the question whether there are universalities in religion, in how religions develop and how they can be categorized, there is no way around the seminal works of Mircea Eliade, scholar of comparative religion. In several encyclopaedic works, he investigated the religions of the world (Eliade 1954, 1959). He was already mentioned as one of the founders of so-called grand theories, even though he was active well into the second half of the 20th century. But his approach and how it is structured, belongs to the systematic of older approaches, in so far as he applies monolithic schemas for the explanation of the development of religions. One is the binary opposition of the sacred and the profane (Eliade 1959). On the other hand, he discovered a schema that seems to be almost universal, which consists of a triad: first, there is a great god who is unknowable and ineffable. In most of the simpler religions this god remains unworshipped and has therefore been called the lazy god. Secondly there are his sons, his messengers, who act as the intermediaries between man and the great god. Thirdly, there are humans.
Eliade has been enormously influential in the development of the anthropology of religion. So have been his works on the concept of cosmogony (Eliade 1954, 1959). Cosmogonies are sets of myths in the sense of sacred narratives explaining how the world and man came to be in the present form. Creation myths give out service to the most profound human questions such as who we are, why we are here, what is the purpose of life and death, and how are humans placed in the world and cosmos in time and space. According to Eliade, rituals are the

reproduction of original creation myths, but on a microcosmic scale. Thus, by participating in a ritual, e.g. a ritual of the end of the world and its recreation, the participant was born anew, began life over and over again, as if it were the moment of birth.
Eliade‘s monolithic schema of interpreting the historical development of religion has been criticized strongly by a number of contemporary authors, e.g. Oestigaard (2011):

> “Moreover, anthropologists, sociologists, and historians of religion have either ignored Eliade or simply dismissed his works, claiming that his method is uncritical, arbitrary, and subjective and hence his works cannot be taken seriously. His sweeping generalizations and universal structures are not historically falsifiable, and his phenomenology is as normative as theology. Eliade‘s approach is, however, consistent in the way that his aim is to interpret trans-historical meaning and religious experiences making ontological claims about human nature and being as such, although this is difficult within the history of religion as a human science. Eliade has, nevertheless, precisely emphasized the irreducible character of religious experience, and he has stressed that it is impossible to grasp the essence of religious experiences by means of physiology, psychology, sociology, etc. Nevertheless, although one may be sympathetic to his position where one aims to understand religion on religious criteria only, to accept religion in its own terms is really to deny that it has any ideological function, since all religious phenomena are historical and all data are conditioned and consequently religious phenomena cannot be understood outside of its history.“ (p. 80)

Nevertheless, the concept of cosmogonies is useful in differentiating between different types of religions, namely transcendental religions, e.g., Christianity or other monotheistic religions, and cosmogony centered religions, which can often be found in hunter gatherer or other early human societies. In cosmogony centered religions sacrifice as a ritual practice has a major religious function and is one of the central features. In early human societies and civilizations, the idea was to return the life-giving energy back to its divine sources by way of sacrifice, whereas in transcendental religions the creator god exists independent of his creation, or the energy bound in that creation.
This demonstrates that there are important differentiations to be made between different forms of religions. This is also the main problem in Eliade‘s approach and other monolithic theories which try to explain assumed similarities or even a common source of religion. The empirical data have shown more variation than Eliade - and these other early theorists - were willing to incorporate into their theories.

> “Moreover, when Eliade claims that the only function of myths is to create a sacred cosmos from the primordial chaos, and that all rituals are repetitions of the cosmogenic myths, he gives these structural patterns a privileged ontological status and denies that religion can be understood in other premises in terms of social, cultural, or psychological factors.“ (Oestigaard 2011, p. 85)

Eliade knew the theories of Jung and in some instances even refers explicitly to his works. He was also eager in his works to provide support for Jung‘s conceptualizations. But even though he took this attitude, he clearly states that religion is always a matter of social, linguistic and economic factors, it is therefore formed by humans and by human societies in their respective contexts. Even though he tried to reduce the different religions from all over the world to some basic interpretive schemas, he clearly points out that there is an endless variety of forms of religion and religious practices, and that no unitary formula or ultimate definition will do justice to these labyrinthic compositions. He emphasizes the multifaced and sometimes even chaotic conglomeration of practices, beliefs and ideas which can be subsumed under the

phenomenon religion and that any hypothesis which tries to find simple, elementary forms of religion is just an unproven hypothesis (Eliade 1959).

Comparative religion: From the grand theories to contemporary approaches

As was demonstrated earlier, a general problem in 19th and early 20th century theories in anthropology, which attempted to explain the development and origins of religion, is the ethnocentric viewpoint the theorists take, as well as the problem that they applied the already mentioned scale of primitive/savage to civilized/developed. Bowie (2004) provides an account of such a distinction between ‚primal' and ‚world religions':

> "The supposed features of a world religion:
> - it is based on written Scriptures.
> - it has a notion of salvation, often from outside (a coming deliverer).
> - it is universal or has universal potential.
> - it can subsume or supplant a primal religion.
> - it often forms a separate sphere of activity.
>
> The supposed features of primal religions:
> - they are oral - the culture is literate, the religion lacks written Scriptures and formal creeds.
> - they are this-worldly in orientation.
> - they are confined to a single language or ethnic group.
> - they formed the basis from which world religions have developed.
> - religion and social life are inseparable and intertwined, and there is no clear division between the sacred and profane or natural and supernatural.
>
> These categorizations are not without utility, or they would not have survived so long. They do, however, as numerous scholars have pointed out, beg many questions, and are at best intellectual constructs rather than descriptions of reality. To take the world religions first, to what extent can Taoism or Confucianism be considered to have universal potential? They are both commonly referred to as world religions, but are largely confined to Southeast Asia." (Bowie 2004, p. 26)

It can definitely be stated that the fact that humans have religion is universal. Even contemporary theorists speculate about the evolutionary and genetic background respectively function of this universal fact. It has to be noted, though, that what is seen as universal is the mere fact of the existence of religion and religious beliefs, and this is by no means support for the far-reaching assumptions of archetype theory in the sense of the above quote, that the contents of religious beliefs and ideas are universal.

> "In this sense, brains have been disposed by evolution to belief and even evolutionary materialists concede that religion plays a role in human well-being. It is easy to see how these converging mechanisms rapidly came to be used to rationalize or solve existential problems that otherwise have no worldly solution, such as the inevitability of death or the threat of deception by others. Research in this area based on cognitive psychology, neuroscience, cultural anthropology, and archaeology is beginning to reach maturity, and a number of generalizations can now be seen to be shared between all modern religious systems. In a phylogenetic sense these shared beliefs are best explained as deriving from our evolutionary origins. These universals include:
>   - the cosmos and its living creatures have inherent worth
>   - religious and ecological preservation are integrally linked: individuals and communities have responsibility towards the environment.
>   - The world is infused with supernatural agency: humanity is spiritually linked to and affected by the cosmos.

- Individuals maintain social relationships with supernatural agents.
- Individuals generally entertain highly anthropomorphic expectations about the supernatural agents.
- The minds of supernatural agents are implicitly expected to function like our own, even thou this is at odds with our explicit beliefs about them.
- Individuals are usually willing to subscribe to the religious norms of their own social groups, at the expense of being viewed as wrong by other groups.
- Individuals are only aware of some of their beliefs; a large amount of implicit, unconscious tenets underlies them.
- Religious beliefs are often concerned with issues of purification and danger, invoking ritual behavior designed to deal with these.

The most obvious use of religion is to encode and preserve ecological information. The origin of deities and other supernatural agents may, therefore, be seen as personifications of ecological processes. .. Religion therefore involves a costly commitment to a counterintuitive world of supernatural agents who are believed to master existential anxieties." (Pettitt 2011, p. 330-32)

It also has to be noted that contemporary scholars of religious studies clearly state: religions are transmitted from one generation to the other by means of communication and learning processes (Wunn 2019). There is also definitely no continuity in the shape of religion from prehistory until today (Wunn 2005). Even though religions seem to have their inherent dynamics of evolution, recent theories criticize earlier conceptions and ideas which were based on far-reaching speculations with practically no evidence, including conceptions of bear cults, fertility rituals, goddesses, widespread cannibalism etc. Eliade, for example, based his far-reaching assumptions about the connections between Palaeolithic cave paintings, shamanism and contemporary forms of so-called primitive religion on just one painting in the French cave Trois Freres, that of the ‚shaman-like' so-called great sorcerer (Witzel 2012, p. 255).

Again, as we have seen above, those earlier theories, which were characterized as the grand theories of the 19th and early 20th century, have been dismissed by contemporary research. It is also criticized today that these earlier speculations referred to far-reaching comparisons with recent hunter gatherer societies.

Examples for misconceptions:

Hunting magic as Palaeolithic religion: The scholar of mythology Joseph Campbell (1971), who in his seminal work on the myth of the hero strongly referred to Jung and took up major ideas from his works - and by doing so wished to support Jung's theories and ideas - was one of the scholars who presupposed an unquestioned parallelism of the mythologies and religions of Palaeolithic human groups and societies with those of recent hunter gatherer peoples. The precondition of his conclusions, though, is his conviction, even his strong insistence on the idea of a biological and cognitive-spiritual identity of mankind over thousands of years. Based on these presuppositions Campbell – as well as other authors - have insisted that Palaeolithic groups had a differentiated religion which was mainly based on hunting magic. Contemporary scholars clearly reject these ideas, since there is absolutely no evidence for practices which could be interpreted as hunting magic (Hodder 2001, Wunn 2005).

> "A claim that evidence was found for Middle Palaeolithic animal worship c 70,000 BCE (originating from the Tsodilo Hills in the African Kalahari desert) has been denied by the original investigators of the site." (Narr 2021)

The earlier misinterpretations can be explained insofar as they referred to archaeological reports, which were based on unsystematic and even poor excavation methods, which were widespread in the archaeology of the 19th and early 20th century, and which were only changed by what today is called New or Experimental Archaeology (see chapter "Prehistory"). But even without these poor archaeological findings, Campbell's approach can be characterized as a circular conclusion in so far as he assumed - without any evidence - that Palaeolithic hunters practiced hunting magic as it can be found in recent hunter gatherer societies, and that therefore these early human groups and societies shared the same mythology with contemporary ethnicities.

The "prehistoric bear cult": Another example of widespread misconceptions about prehistoric religion is the theory of a prehistoric bear cult, which was formed in the first half of the 20th century. It refers to findings of bear bones and skulls in caves which were thought to have been inhabited by prehistoric humans. These bones were found in a certain systematic order, which was then interpreted as the remains of a religious cult of the cave bear with specific rituals connected with it. This theory assumed a continuation of these assumed prehistoric bear cults to practices in the Arctic regions of Siberia and North America of comparable bear cults, which have been documented in detail in anthropology. The theory argued that these bear cults originated in prehistoric times, that these were spread over all of Eurasia and North America and continued up to the present day, as they could be found in the rituals and religious practices of peoples living in the Arctic region. These ideas and theories have been rejected by contemporary scholars based on two insights (Wunn 2005, p. 74-79):

The early theories had been founded on very poor excavation practices in caves mainly in Germany. It has to be noted that the caves in which the bones and skulls were found are subject to periodical flooding, which then lead to processes of sedimentation. Contemporary reconstructions could demonstrate that the positions of the skulls and other bones can be well explained by such processes of sedimentation, transportation of the bones and skulls through water, and other physical processes which take place without any influence from human beings – so the seemingly meaningful placements are just the result of natural fossilization processes.

The second reason for the rejection of these earlier theories are detailed comparisons by contemporary anthropologists regarding the different forms of hunting magic and bear cults found in contemporary Arctic societies (e.g., Ainu). These investigations could demonstrate that there are actually large differences between rituals and beliefs of different contemporary ethnicities, so that it is not possible to draw a line of continuity from earlier practices to the contemporary ones. Contemporary rituals of hunting magic and bear cults in Arctic societies are embedded in their complex religious belief systems as well as their environmental and economic conditions. It can be summarized that there is no evidence for any kind of bear cults and other practices and rituals of hunting magic for the middle and upper Palaeolithic.

The same applies to ideas which attempt to draw a line from assumed hunting magic practices to more elaborate forms of animism – the religious veneration of animals or Lords of animals as well as the identification of the hunter with an animal ghost or soul, called totemism. There is no doubt that such practices and beliefs do exist in contemporary hunter gatherer societies and go back well into history, but:

> "It is not possible to determine to what extent animalism had already assumed the character of true totemism in the Palaeolithic Period; the early existence of clan totemism is improbable because it occurs primarily among peoples who are to some extent agrarian, and possibly a certain kind of sedentary life was prerequisite to its development." (Narr 2021)

Cannibalism: Another popular theory in the first half of the 20th century was the idea of a common, if not universal, practice in prehistoric peoples to eat the bodies of their enemies, and of their deceased relatives, an idea which is ironically referred to in contemporary anthropology as the man-eater myth. It could be demonstrated that these ideas were founded on accounts of adventurers, which could by far not be interpreted as serious archaeology or ethnography. Even if these practices were reported by ethnographers, they were usually not reported as eyewitness accounts, but were referring to secondary sources. Accumulations of shattered bones and destroyed skulls found in archaeological excavations were quickly interpreted as the remains of prehistoric cannibalism. As in the case of the above reported bear cults, the position of the bones and other remains could, in fact, well be explained by natural processes, e.g., they could be identified as the remains of hyenas living in caves in the times of the lower Palaeolithic (Wunn 2019). Cuts in the bones and distracted skulls, which were in earlier accounts interpreted as the remains of the use of knifes and attempts to open the skull and eat the brain, could again be interpreted as sedimentation and fossilization processes, e.g., when bones are pressed in the sediment against sharp stones or moved in the ground (Wunn 2005). In general, the same explanations could be found in contemporary accounts for earlier ideas about funeral rites and the positioning of human skulls in the middle Palaeolithic. This is notwithstanding that in some contemporary hunter gatherer societies ethnologists reported such practices as eating the remains of deceased relatives in the context of funeral rites - but they are definitely not universal.

> "In finds belonging to the Palaeolithic Period, pieces of human bodies as well as the bones of other animals are found scattered throughout the archaeological layers and are sometimes broken or charred. This is often taken as evidence for cannibalism, but other interpretations are just as likely (e.g., the action of carrion-eating animals [such as hyenas] turning up the bones to the surface and thus causing their burning by later fires at the same place). To be sure, the finds allow the interpretation of cannibalism; however, they do not necessarily or intrinsically require it but rather permit that explanation if one proceeds from the prior conviction that cannibalism already existed at that time. This obsolete conception, still held by some scholars today—i.e., that cannibalism is an especially "primitive" phenomenon and therefore very ancient—must be abandoned. Ethnological studies show clearly that cannibalism appears almost exclusively in the practices of agrarian peoples, that is, in a later cultural stage, and evidently is essentially bound up with religious or magical conceptions in which cultivated plants play a large role. Even if a Palaeolithic cannibalism existed on a large scale, it could not be explained by means of concepts that originated in a cultural stage so differently structured." (Narr 2021)

In general, it can be summarized that contemporary archaeology, and the conclusions that are drawn from the findings in contemporary theories of the anthropology of religion are much

more cautious in interpreting the material, they attempt not to carry preconceptions and monolithic explanatory models into the documentation of the findings etc. In sum, this leads to the insight that our knowledge about the religion in the Palaeolithic is very restricted and may remain so in future since it is almost impossible to reconstruct religious beliefs just from the very restricted archaeological findings we can have of that time.

The theory of religious evolution

Instead of assuming that religion develops out of evolutionary features of the human mind or even genetic foundations, the scholar of religion Robert N. Bellah (1964) developed a model of how religions develop out of their own structural dynamics in a form of evolutionary process; these ideas were based on the concepts of the evolution of social systems developed by the sociologist Talcott Parsons. The general idea in this theory is that religions develop over five distinct stages from primitive beginnings lastly to the individualized belief systems of present times. The factors driving this evolution are processes of differentiation inherent in religion itself. Bellah assumes five stages: primitive religion, archaic religion, historic religion, premodern religion and modern religion. Primitive religion, for example, is characterized by the lack of religious organizations, which are separated from other societal organizations, there is no church nor any priests. Differentiation in society is organized based on age, sex and kinship relations. Women are not excluded from religious life but may have their own rituals. Religion takes an important role in society; it creates solidarity and introduces the members into their rights and duties. What is very important for a discussion of archetype theory is the insight, which Bellah could present convincingly, that these developments are not connected with features of the human brain, but they are closely connected with the economic system and social organization of the respective ethnicities and groups, which again relate to the environment they were living in.

This is different from the earlier grand theories of the 19th and early 20th century which assumed a teleological process, which could be observed in every part of nature as well as in society, which leads necessarily from primitive structures to lastly perfect forms. An example of this is Lamarck's idea of a universal drive to perfection, an idea which strongly influenced Jung's psychology. Inherent in these older theories is the general assumption that European civilization and religions are the crown of the creation, a viewpoint that has already been characterized as colonial thinking. Contemporary approaches do not include such value judgments, in the sense that so-called primitive religions can have extremely complex cosmologies compared to much simpler modern religions as for example Christianity.

> "In evaluating all such attempts it must be remembered that even seemingly primitive tribes, so one used to say, such as the headhunting Dayaks of Borneo, have myths and ritual tales that … amount to some 15,000 pages, once collected." (Witzel 2012, p. 369)

If we call prehistoric religious practices primitive, this does not necessarily mean that they consist of simple forms; they may even have very complex cosmologies. The term primitive refers to the social institutions that are inherent in the religious forms, as for example the institutions of priests, religious organizations etc. Additionally, it has to be noted that societies

with primitive forms of religion may have elaborated technologies in practical life, whereas peoples living on a technologically simple level may have quite complex religious beliefs and practices (Wunn 2005).

In the view of Ina Wunn (2019), anthropologist of religion, religions have developed in adaptation to the respective peoples' natural environment as well as their social and political organization. They have not developed out of assumed - and up to date not verifiable - functions of the human brain or other physiological conditions, but on the way of cultural tradition, i.e., processes of communication. Usually, members of a society learn religious beliefs from their mothers, on a vertical line of transmission from one generation to the other. Only if there is horizontal communication between different social groups with different religious points of view there will be change in religious ideas, because otherwise the processes of transmission are very stable over long time. Based on these processes, religions have developed into a great variety, which may have some features in common. But contemporary scholars stress the fundamental differences between contemporary religions as well as between religions from prehistoric times and contemporary hunter gatherer societies or other small-scale societies (Wunn 2005). This also means that the religions of today's hunter gatherer societies or those of simple agricultural civilizations cannot longer be seen as the original religions – instead, they are also at the end of a long series of developments in the form of religion. Contemporary theorists would also clearly deny ideas such as that religions develop somehow automatically on a unilinear scale, following undeniable natural laws - an idea that characterized the above-mentioned grand theories; such ideas and approaches today are regarded as refuted (Wunn 2005). Since religions always serve certain needs of the peoples that developed them, they are also subject to change, as also the environments and contexts as well as the social organization and technological level of these peoples change over time.

The evolution of first religions

Based on these fundamental considerations, Ina Wunn (2019), one of the leading scholars in the field of history of religions, presents a history of the development of the first religions in Palaeolithic times, which is summarized in the following account. She stresses the point that, in contrast to the earlier, above-mentioned, grand theories she applied a systematic method of comparison which is based on a detailed analysis of the environmental contexts in which the respective peoples and societies lived, and this is additionally paralleled with the respective archaeological findings. By archaeology the author refers to what is called New Archaeology or Experimental Archaeology which makes use of systematic scientific methods to analyse the data and findings (see chapter "Prehistory" for details). This also includes a thorough analysis of the living conditions, technology and practices of contemporary hunter gatherer societies, not in the sense that she parallels their beliefs with prehistoric belief systems or religions, but in the sense of understanding the living conditions and the means for securing survival in societies which are reliant on hunting. These studies enabled archaeologists to understand what the typical remains of a hunter gatherer group look like in their usual context, to become able to analyse and interpret archaeological findings from

prehistoric hunter gatherer groups. Unfortunately, even in many contemporary accounts of the development of religions earlier insufficient methodologies in archaeology are still referred to, which has led to the situation that in the anthropology of religion many of the above-mentioned outdated ideas and approaches have remained.

About 90,000 years ago the first humans began to bury their dead, but without having any ideas that could be called religious. Wunn assumes that the burials had a territorial aspect, as they demonstrated the claim of the hunter group over certain hunting territories. That is also the reason why the dead would be buried in the village or even in the ground beneath the floor of the houses, a practice which lasted until Neolithic times. On the other hand, the burials were a means to cope with the sorrow and bereavement about the loss of a relative. Out of this practice developed first beliefs of a life beyond death. So, at the base of the development of religions are, on the one hand, territorial claims, on the other ways of coping with existential fear. In the upper Palaeolithic, these developments led to the painting of caves, which can also be understood as a way of demonstrating a claim on this habitat. The pictures that were used make use of universal threat and appeasement (apotropaic) signals, mainly the presentation of an erect phallus or a vulva, often combined with the presentation of the female breast as a sign of appeasement. Both elements are combined in the female figurines with large breasts presenting a vulva (e.g., Venus of Willensdorf). Anthropologists of religion were able to understand these universal, biologically based gestures and signs based on ethological research; these apotropaic signals include the presentation of the genitals, the female breast, the hand held out in defence, the menacing stare of the eyes etc. These signs or gestures contain the same meaning independent of language and can be understood in all human societies (in this sense, they are, according to Wunn, truly universal). This can explain the use of these apotropaic signs in art and sculpture from prehistoric times way into antiquity, in the form of ancestor figures, temple guardians, border posts, demons and talismans. The presentation of the buttocks, in contrast, signals the willingness for coupling and can therefore be understood as a submission gesture.

These considerations of fundamental human gestures which are thought to be universal is partly supported by Witzel (2012, p. 271-72). He provides the following list of ‘panhuman gestures’, which he believes are derived from our primate ancestors and are therefore independent of language: pacifying smile; threatening bearing of teeth; threatening staring of the eyes; the demonstration of the erect penis as a threat and power gesture with its modern variation of raising the middle finger; the exposure of the female posterior as an invitation to sex and as a demonstration of submission; the presentation of the vulva, knees raised and spread out as a gesture of female dominance; the demonstration of female breasts as a pacifying gesture; the presentation of erased palm is used as a sign of denial and as a protecting device. All these signs can be found in abstract form already in Palaeolithic art. But he also adds some gestures which are in fact not universal, but have different meaning in different cultures, e.g., the shaking of one’s head, which in some cultures means yes, in others no; the Tibetan projection of the tongue as a greeting. The same applies to some symbols which (for example in Jungian psychology) have been interpreted as being universal:

> "For example, in contemporary West Africa the ubiquitous Indian, Buddhist, Jain, Amerindian, and so on swastika sign has no relation to the course of the sun, as it does in many other cultures, but rather, indicates monkey's feet." (Witzel 2012, p. 274)

The described form of proto religion developed in Europe during the Ice Age, migrated from there to the East, and reached the Near and Middle East, the so-called Fertile Crescent, by around 10,000 years ago. When in the Fertile Crescent agriculture was invented, these religious ideas developed into first conceptions of a realm of the dead and a female figure which was responsible for birth and death, for growing and decaying and for the renewal of life itself. The territorial claims developed into practices of ancestor cult, which was practiced by conserving the bones of the dead, keeping their skulls, sometimes visible in erect position, or later through methods of mummification. This became even more important for the development of agriculture, which created a need for legitimation of the claims on agricultural land. But from this time onward regional differences develop and lead to significantly different religious ideas and traditions. So, regarding religion in the upper Palaeolithic, it can be summarized that the only plausible interpretations of the findings speak for the existence of first ideas of a life beyond death, and the existence of an idea of a primal mother responsible for the creation of life – but, nota bene, only in Europe and the Fertile Crescent. These primal mother figures were not thought of being universal goddesses but were worshipped as individual ancestors of a specific family or group. In later times, when the first cities and states were formed in Mesopotamia, the need arose to unify these divergent groups and tribes and their specific ancestor figures, and this happened by creating unified mythologies which incorporated the specific mythologies of the divergent groups. The same happened to the figurines of worship, which were melted into one great goddess of life/creation on the one hand, on the other hand this was the birth of polytheism, as all the divergent gods and goddesses were melted into the polytheistic pantheon.

Since agriculture, as can be demonstrated convincingly, was invented originally in the Fertile Crescent it can be assumed that with the proliferation of agricultural techniques from the Near and Middle East to Europe, Asia and other parts of the world, this polytheistic religion migrated with the technological developments and thus spread over considerably parts of the Old World, it namely influenced religion in Greece and the Mediterranean as well as in Iran. On the other hand, the described development also happened parallel, e.g., in Egypt, under the same conditions, that is the pressure to create larger political units and establish political hierarchies. The different development of Israel/Judah shows that there were a variety of possibilities to deal with the same problem. In the case of Israel, the authorities, instead of creating a polytheistic pantheon, chose a way to unite their divergent protective gods and goddesses of the different tribes and towns into one god figure. This went parallel to the extinction of older cult places and temples, which were intentionally destroyed and levelled, so as to give authority to the Temple in Jerusalem.

Wunn (2019) summarizes:

> "This model of religious evolution proves that religions cannot be scaled as more or less developed, and therefore cannot be connected with a scale based on value judgments. Instead, each religion of a people has to be regarded as an ideological adaptation to the respective environment. … This not only speaks clearly against the assumption of a - up to date not verifiable - brain function which generates religion, moreover it can explain why the human brain does not bring about the same kind of religion

> in all times - because religion does not automatically develop out of physiological conditions, but because religions are cultural accomplishments and are inherited on the same way as all culture: via communication processes. … Religion does not develop because the brain automatically produces certain connections, but instead because from earliest childhood on we learn religion. Together with ethical norms, the foundations of our social behaviour, we also take over religion, and this happens mainly on the base of vertical communication from the mother to the child." (p. 332-34; transl. C.R.)

Even though this account of the development of religions is one of the most elaborate and well empirically grounded, it is not undisputed. There is an extensive critical discussion of Wunn's hypotheses in Witzel (2012, pp. 255-261), even though he agrees with many of her fundamental assumptions.

No universal/primal religion to be found

Based on these fundamental considerations in contemporary approaches to the history and development of religions, some basic elements in the anthropology of religion can now be reconceptualized.

Totemism

The 19th and early 20th century theories that were discussed above and were characterized as grand theories - among them the theories of Frazer and Durkheim - relied heavily on the concept of totemism (along with shamanism) to describe and explain assumed universal features of religions and especially the origins of religions. Totemism was regarded as the earliest form and the root of religion. This view was based on an evolutionary perspective that carried the assumption of a progression from primitive, that is animistic, to modern, civilized religions that were monotheistic. They attempted to provide evidence for this assumption by looking for data about the most primitive societies.

> "Despite having occupied many leading anthropologists for the best part of the century, totemism as a concept is now seldom discussed, and by many is dismissed altogether. The association of totemic systems with early or primitive societies has been unfortunate, leading to the use of Australian aboriginal beliefs as a representative of prehistoric types of cosmology. While Australian aboriginal cultures may have maintained greater continuity over time than Western cultures, there is no evidence that they are in any sense ancestral to non-Australian peoples, or that their belief systems were once universal. These views imply that simpler societies are ahistorical and static, which is very different from claiming that they are both adaptable and conservative. … The idea of totemic sacrifice as a primary and universal religious act does not find cross-cultural support." (Bowie 2004, p.137-39)

So, for contemporary scholars in anthropology and the history of religion totemism is not a universal form of religion but a specific religious practice in societies characterized by a clan structure, and is therefore seen as just one way among many to form a religious system and to relate to the surrounding environment.

Animism

The same that was said above about totemism applies also to animism and the theories accompanying this phenomenon. In the above-mentioned grand theories, there was the common notion that animism - meaning that also inanimate objects are thought to have a

soul - is a specific feature for so-called primitive societies as well as for primitive modes of thinking, as can be found in children as well as in mentally insane - which was apparently the same idea Jung had in his theory. These ideas are continued in theories attempting to explain the development of religions referring to evolutionary forces. These ideas parallelize the ways of thinking in early Homo sapiens in the Palaeolithic and that of children respectively thinking in states of regression and psychopathology. Insoll (2011) summarizes the debate and also points out the problems with such cognitive processualist approaches to religion, because of the "universalizing perspective employed, that is a defining hey-presto moment of religious complexity subsequent to a number of evolutionary stages" (p. 1009), which is not supported by contemporary scholars. He also points out evidence which speaks against such assumptions: cross-cultural studies have found that some hunter gatherer groups do not depict animals in visual art; in some cases of rock art and cave paintings some animals appear wounded by spears, which would be incompatible with the respect that would be due to a totem.

> "The utility of the terms animism and totemism is questionable, and various anthropological observers have commented upon their problematical status and that of related terms such as ancestor worship and shamanism. Geertz, for example, has described all these terms when applied to religious traditions as denying their individuality and as insipid categories by means of which ethnographers of religion devitalize their data. Similarly Wendy James has noted that such concepts as totem, taboo, animism, ancestor worship, tribal gods, and so on carry too much of a burden from older evolutionary thinking about religion." (Insoll 2011, p. 1004)

Ancestor cults

The same as was said about animism and totemism applies also to the idea of ancestor cults when referring to findings from the Palaeolithic:

> "Interpreting the presence of ancestor cults based on archaeological materials has validity in some contexts, but if ancestors and ancestor cults are deemed interpretively relevant for archaeology then ethnographic analysis usually tells us that they should not be thought of as operating in isolation, but, as already stressed earlier, as part of a multiple package of phenomena, practices, and beliefs whose configuration and importance can change over time. For instance, the study of the Baktaman clearly indicates that the interlinking between sacrifice and ancestor veneration in stating that the focal operation in every Baktaman ritual is sacrifice. Similarly, among the Tallensi, complex configurations of ancestors exist, as described, but believes in these and their associated ritual practices operate alongside other frames of reference such as earth cults and totemic observance. It is when we privilege singular ancestral interpretations with supposed universal applicability that interpretive complexity and subtlety is lost." (Insoll 2011, 1055)

Ritual

Eliade (1954) based his explanatory system of religion on the analysis of mythology, and for him ritual is a re-enactment of primal myths, so they can be seen as performances of cosmogonic events brought into the present. As with other forms in the field of religion, also rituals are seen by contemporary anthropology from the perspective of their function, for the individual as well as for groups or societies. This means that they are seen to be closely

connected with organizational forms of groups and societies, power relations, the forming and guidance of behaviour, to provide social harmony and balance, and on the personal level to modulate emotions. Thus, all rituals, including religious rituals, seem to be grounded in the everyday human world and serve certain functions in everyday life conduct.
Contemporary anthropologists also point to the problem that it is often not easy to identify a ritual as separated from other everyday practices, and it seems that it depends very much on the definition of the anthropologist. This means that a certain activity which is called ritual is not automatically and universally recognizable, but it is more a category for analysis and interpretation by Western observers; the difference between ritual and non-ritual is relative rather than absolute (Bowie 2004). So, there is also not a single or simple explanation of ritual, but it has to be recognized that rituals are multifaceted.

> "Ritual is not, however, a universal, cross-cultural phenomenon, but a particular way of looking at and organizing the world that tells us as much about the anthropologist, and his or her frame of reference, as the people and behaviour being studied. This does not mean that as a category ritual has no explanatory or interpretive value, but we would do well to beware universal, essentialist interpretations of actions defined by the anthropologist as a ritual." (Bowie 2004, p.151)

It also has to be noted that religious rituals are driven by the same cognitive system that guides everyday practice, which could explain the difficulty to differentiate between the two when looked at from an outside perspective.

> "Another fundamental distinction is often made between religious and nonreligious rituals. Obviously, religious rituals refer to ceremonies that involve the belief in supernatural beings, while nonreligious rituals do not. Examples of the former would be prayer, baptism, shamanistic rites, pilgrimages, etc., while illustrations of profane rituals are coronations, birthdays, greetings, etc. However, the distinction between the sacred and the profane, or the supernatural and the social, is often difficult to make and in many contexts even not present at all. For instance, since the fundamental work of Durkheim, it is acknowledged that religious rituals have important social functions, with regard to, for example, social cohesion, uniting people by their belief, the establishment and maintenance of power structures, making social differences appear as supernatural." (Verhoeven 2011, p. 118)

It has been argued that to the modern Western rational mind rituals are often regarded as distinctly sacred, non-functional, and irrational. This kind of perspective is not found in all societies. In fact, it is by now well-known that strict separations, as for example between the sacred and the profane, nature and culture etc. are utterly meaningless to many traditional small-scale communities all over the world.

> "Given the many different definitions, attributes, typologies, and approaches used by researchers, as well as the fact that in many societies ritual and religion are inextricably bound up with every aspect of life, it has been argued that ritual is not only a multidimensional, but also a holistic phenomenon. Thus, in many contexts rituals are basic mechanisms for the proper operation of the sociocultural universe, relating social and supernatural domains. Ethnocentric assumptions regarding the sacred and profane, or other taken for granted distinctions should therefore be treated with suspicion, especially when dealing with small-scale prehistoric societies. The many dimensions of ritual make it not only a very interesting but also a rather difficult subject, especially for archaeologists." (Verhoeven 2011, p. 127)

Rites of passage

An important position in the debate about ritual takes Arnold van Gennep‘s (1909) work on rites of passage, in which he investigates transition rituals, which mark a change of status, and which are performed in ritual actions. These rites of passage can be observed in different societies and deal with passages around birth, initiation, marriage, and other changes of social status. He developed a framework which is applicable to practically all ritually performed passages, assuming these have a threefold structure: the first stage is that of separation from the current state or status, followed by a middle stage, in which the person is betwixt and between, before in the final stage of reintegration the transformed person is reintegrated into the group with a new status (summary in Bowie 2004, p. 163).

> “As a summary of his work on rites of passage van Gennep came to three general conclusions: 1. Beneath the multiplicity of forms a characteristic threefold pattern emerges. This occurs in all rites of passage and within different stages of a rite of passage. 2. The middle or transitional (liminal) stage can acquire a certain autonomy within a ceremonial whole. 3. The passage from one social position to another is identified with a territorial passage, such as the entrance to a village or house.“ (Bowie 2004, p. 166)

> “Our interest lies not in the particular rites but in their essential significance and their relative positions within ceremonial wholes - that is, their order. … The underlying arrangement is always the same. Beneath a multiplicity of forms, either consciously expressed or merely implied, a typical pattern always recurs - the pattern of the rites of passage.“ (Van Gennep, quoted in Bowie 2004, p. 167)

So here seems to be a universal pattern which is not fundamentally questioned even by contemporary anthropology; it has to be noted, though, that the supposed threefold structure is an explanatory concept, an analytical tool, and should not be reified. Also, any assumptions about a biological foundation of these patterns have been dismissed in anthropology (and also by Van Gennep himself), instead the emphasis lies on the social functions of these ritual forms. Van Gennep himself, as early as 1909, criticized the above-mentioned theories and their colonial thinking as well as their evolutionist viewpoint: first he criticized the characterization of indigenous societies as primitive, which he saw as far-reaching speculation, since in his own investigations he found that they were neither uniform nor homogeneous and in regards to their social mechanisms as complex as so-called civilized societies; second he criticized the method, e.g. found in Frazer’s Golden Bough, to draw elements out of the context and interpret them by looking at surface similarities, instead of investigating their inner mechanisms in depth. This is interesting, because Jung knew Van Gennep’s seminal work and also used it in his argumentation but seems to have not acknowledged this critique. In this sense he misused Van Gennep as a support for his universalist, evolutionist ideas.
Van Gennep’s ideas were further developed by the anthropologist Victor Turner (1974, 1991) in his studies on initiation rites. These theories were later criticized since they drew heavily on male initiation rites and were not applicable to female initiation. Bruce Lincoln suggested an alternative threefold structure for women‘s experiences and rituals including the stages of enclosure, metamorphoses, and emergence. He emphasizes the transformative effects of such rituals. Bowie (2004, p. 184) summarizes:

> "Rituals attempt to enact and deal with the most central and basic dilemmas of human existence - continuity and stability, growth and fertility, mortality and immortality or transcendence. It is the potential of rituals to transform people and situations that lends them their power. A ritual may create a docile wife or a fierce warrior, a loving servant or an imperious tyrant. The ambiguity of ritual symbols and the invocation of supernatural powers magnifies and disguises human needs and emotions because rituals are performed, sometimes in terrifying circumstances, the messages they carry act at a psychobiological level that includes but exceeds the rational mind. Symbols and sacred objects are manipulated within ritual to enhance performance and to communicate ideological messages concerning the nature of the individual, society, and cosmos. Far from being an epiphenomenon of religious behavior, rituals are fundamental to human culture. They can be used to control, to subvert, to stabilize, to enhance, and to terrorize individuals and groups. The study of ritual can indeed provide a key to an understanding and interpretation of culture."

Instead of assuming that rituals, even if they seem to have a universal structure, are based in the psychobiology of humans in the sense of a collective memory with a genetic base, this account implies that rituals have a universal structure because they aim at the psychobiological makeup of humans, to activate or channel, yes even to manipulate human emotions to serve certain functions. This is paralleled by the insight, mentioned above, that human behaviour is not genetically coded, but humans have a set of preformed emotional systems which, when activated, lead to specific preformed action patterns. So human behaviour can be activated, transformed, but also manipulated by activating certain emotions. It seems that rituals are designed to do just that.

Shamanism

> "Shamanism is one of these terms which is often used very broadly, referring to many different phenomena, some of which bear little relationship to one another or to any original derivation. Most writers, however, agreed that shamanism is a technique rather than a religion, and that the shaman is a religious specialist existing within many different religious and cultural contexts. … The word shaman is thought to have originated with the Chukchi of Eastern Siberia, where it refers to a religious specialist who has the ability to enter a trance state in order to communicate with and appease the spirits for the purposes of healing, fertility, protection, and aggression, and to act as a guide to the souls of the dead." (Bowie 2004, p. 190)

Halifax (1991), in her summarizing work on shamanism, gives a list of defining features: there is an initiatory crisis, often connected with illness or a disability; a vision quest; ordeals that the apprentice has to undergo, which can include experiences of dismemberment or even symbolic death followed by regeneration; the idea of a sacred tree or axis mundi; spirit flight; the ability to travel transcendental worlds by entering ecstatic trance; and the function of a healer and intermediary between the tribe/people and a reality beyond.

In anthropology there have been several theorists who assumed that shamanism is something as the original or primal religion, which already existed in the Palaeolithic. An outstanding protagonist of this way of thinking is Mircea Eliade with his encyclopaedic work on "Shamanism: archaic techniques of ecstasy" (1964). He assumed that shamanism is a specific phenomenon which can be found all over the world in ancient as well as contemporary religions. Also, contemporary religions include shamanic elements, but Eliade postulates that there is something as an original and pure shamanism.

In popular works on archaeology cave paintings from the Palaeolithic have been interpreted as products of shamanic rituals or practices, and there has been the interpretation of these

paintings and carvings as ornaments of sacred chambers in which shamanic rituals were conducted. There is also a debate which sees shamanism as the Celtic religion ('Druids') which is interpreted as the predecessor of contemporary European religions.

> "Such claims are very difficult to verify and owe more to 19th-century theoretical evolutionist debates then to contemporary anthropological discourse. Eliade's work has, however, been extraordinarily influential and is widely quoted by writers on shamanism, most of whom accept his definitions and classification of shamanism without question." (Bowie 2004, p. 193)

Shamanism has been investigated thoroughly by Russian anthropologists, also because it is mostly found in the Arctic region, namely Siberia (Hultkrantz 1993). These investigators usually have been more cautious in interpreting shamanism, and regarded it not as a single, unified religion but a cross-cultural practice of religious rituals and healing procedures. In this scholarly tradition a more restricted definition of shamanism is used, which is seen as a specific cultural practice and worldview which is characteristic of the circumpolar or Arctic complex. Parallels can be found throughout the Americas and also in Southeast Asia, although there are wide divergences between the practices in these regions and those from the Arctic.
In the Russian scholarly tradition, definitions were specified which apply exclusively to this circumpolar complex of shamanism: the shaman is a master or mistress of spirits, which he/she can get under his or her control, by a complex of methods and techniques which are transmitted from master to apprentice. Shamans have a special social position in their community and can give a theory about their practice (Bowie 2004).
Practices characterized as shamanism may be widely distributed but are showing different constellations of traits which do not occur in Siberian shamanism (Hultkrantz 1993). In general, contemporary anthropologists tend to restrict the definition to the circumpolar complex with a certain degree of cultural continuity (e.g. Bowie 2004).

> "One can standardize the words taken from a primitive vernacular, like totem, and use it to describe phenomena among other peoples which resemble what it refers to in its original home; but this can be the cause of great confusion, because the resemblances may be superficial, and the phenomena in question so diversified that the term loses all meaning." (Evans-Pritchard, 1972, P. 12)

> "The desire to reserve the use of the term shamanism to the circumpolar regions, with the recognition of related concurrences in Asia and the Americas, is, however, confined to scholars writing for the academic market. So handy a term, which can mean almost whatever you want it to mean, has achieved a broad currency in popular literature and in the popular imagination." (Bowie, 2004, p. 196)

Witchcraft

As with other examples described above, in contemporary anthropological accounts of religious ideas about witchcraft and the respective social and cultural practices, which are indeed found in a variety of cultures, these can well be explained by the social context and the social relationships in which they are embedded in. It is assumed that witchcraft reflects interpersonal behaviour between people in stressful situations and that stressful behaviour is frequent in particular social relationships. Bowie (2004) gives an example for these relationships from the Guinea Coast culture area:

> "The Nupi and the Gware are neighboring societies in the Guinea coast culture area. They live in similar habitats and interact socially and economically with one another. Their social organizations are very similar; they even speak closely related languages. And many aspects of their religious practices are

> similar or identical. These two societies accept the existence of witchcraft, and the details of this belief are similar except for the sex of the witch. Among the Gwari, witches are both men and women; among the Nupe they are always women, although the operation of a woman's witchcraft activities must be aided by a man. There are ways of countering and preventing the operation of witchcraft. Among the Gwari it is through rituals that rid the entire community of witchcraft. Witches are identified through divination, and the victims are both men and women. The pattern among the Nupe is different. Here the witchcraft of women is controlled through secret activities of the men.
> According to our hypothesis that witchcraft accusations are signs of difficult social relationships, we might want to examine differences in interpersonal relationships in the two groups. Among the Nupe the general picture is one of antagonism between men and women, reflected in the fact that witches are always women and men have the ability to control the activity of female witches. Further study reveals a major difference in marriage relationships in the two groups. Among the Gwari, marriage is generally free of tension, but this is not the case with the Nupe. This is likely due to the differences in the economic systems. Among the Nupe, married women can become itinerant traders and have the potential of economic success. Their husbands are often indepted to their wifes, and wifes take over certain economic tasks that usually fall within the sphere of activity of man. These include paying for feasts and gathering together the bride wealth for sons. Men are angry and resentful over the situation but really cannot do anything about it. In addition, among the Nupe, itinerant traders can be married women who leave young children in the care of extended family, and even refuse to have children, to be free to ply their trade. Although men condemn this activity as immoral, once again they are helpless to do anything about it. It is this anger and hostility that are projected into the world of witchcraft, in which witches - interestingly, visualized as itinerant traders - are women who can be controlled by the men. Thus, men have power over women in the realm of witchcraft but not in the real world." (p. 229-30)

Compared to European and North American ideas about witchcraft and the practices of witches (Evans-Pritchard 1981) it becomes clear that there are many differences compared to ideas in small-scale societies. Again, it can be demonstrated that these differences can be well explained through the social context in which the phenomenon appears. Interestingly, contemporary studies about the persecution of witches in Europe in late medieval times, which made use of court documents of trials against witches, found out that most accusations against these women came from their female neighbours, which could be interpreted as speaking for the above-mentioned hypothesis, that witchcraft is associated with stressful interpersonal relationships, in this case presumably jealousy and female rivalry (Lütz 2018). Evans-Pritchard (1981) concludes that beliefs around witchcraft serve a number of functions in societies, it provides explanations for the unexplainable, especially for misfortune and how to deal with it, and it serves to define morality.

Conclusion

> "What such comparisons do teach us is that religious behavior may have universal elements, but that it is also highly dependent upon its social and physical environment." (Bowie 2004, P. 214)

Again, as was found for anthropology in general, it can be summarized that beyond the mere fact of the existence of religion, no truly universal elements in the field of religion could be found; the same applies to the idea of a primal religion, which actually does not exist. It could be demonstrated that earlier ideas regarding assumed universals, e.g. about shamanism or hunting magic, as well as theories constructing a linear scale of development from primal or original to contemporary religions were based on poor documentation and data analysis, or were prejudiced misconceptions from the beginning. Similarities as well as differences found

in cross-cultural comparisons can well be explained by the social, economic and political contexts as well as natural environments in which these phenomena occur, and to a great extent also through cultural exchange (see also chapter “Prehistory”). Contemporary accounts of the anthropology of religion have departed from assumptions that specific religious beliefs and practices come about through the biological makeup of humans. This does not imply, on the other hand, that there is not such a thing as a universal and fundamental human need for spirituality and transcendence. It is also not denying the idea inherent in Jung’s theorizing around archetypes, that the study of religions can teach us what – broadly speaking – is ‘good for us humans’. So, for example, a number of religions have explicit diet rules, e.g., the rule in Judaism as well as Islam not to eat pork meat, which makes a lot of sense since in the climate of the near East and Arabia this kind of meat can quickly develop dangerous bacteria. Religious rules and practices can also serve human needs on a psychological level, e.g., rites of initiation can help loosen the strong bonds between children and their mothers and can thus help to take the step into adulthood, and it can be demonstrated that cultures with a lack of such initiation rites have more problems with adolescence (Zoja 1989). In that sense, the study of religions and religious practices and beliefs, as has been practiced in analytical psychology for decades, can provide psychological insights which can be of help in the practice of psychotherapy. But it is not necessary for this approach to insist on problematic assumptions that such helpful rules come about through the biological makeup of humans or are universal at all.

8 Prehistory

In the analysis of Jung's statements and definitions around the concept of archetypes, a basic element was identified: the idea that archetypes have developed in the prehistory of humans. There is the idea in Jung that the archetypes have formed over thousands of years in prehistory, as a 'precipitation of experiences' of early men. They are a heritage that has come upon us modern humans from early times, in some sense as our archaic nature, linking us to our ancestors in prehistory. So, together with the above-mentioned idea of homology of phylogeny and ontogeny, Jung's theories about archetypes contains a whole set of ideas and assumptions about the life and development of humans in prehistoric times. Therefore, the state-of-the-art in studies of prehistory, or palaeoanthropology, will be summarized in the following – with a special emphasis on aspects of religion[14]. This will provide further evidence for what was presented in the chapter "Religion".

Problems in the archaeology of prehistory

> "When assessing potential evidence of ritual and religion in the upper Palaeolithic - the period from roughly 40,000 to 10,000 years ago - it is often difficult to decide whether one is seeing something of deep significance or instead something mundane: was all cave art necessarily profoundly meaningful and mystical? Do footprints in deep caves do represent ritual visits, or simply the bravado of youngsters? Was the breakage of an object a ritual, or an accident? Were bone fragments stuck into cave walls and floors as part of a ritual or for practical reasons? Is the positioning of a bear skull part of a mystical rite, or the result of a child playing with it? It is all too easy to project our own preconceptions and wishful thinking on to the mute archaeological evidence, and one could cite countless examples of unwarranted and purely speculative hypotheses involving ritual in this period. The evidence requires a more objective and sober assessment." (Bahn 2011, p. 344)

The above quote points out the general problems that archaeologists of prehistory are confronted with when having to interpret findings from prehistory. When assessing the state-of-the-art in prehistoric studies and the historical development of theories and concepts in this field, one becomes aware of the endless sequence of highly speculative, in some cases even bizarre, theories and ideas that have developed over the last 150 years in the discipline. An interesting example for such misconceptions and misinterpretations was reported in the German scientific journal "Bild der Wissenschaft" of July 2014:
Palaeontologists investigated a cave in South Africa which contained paintings on the walls, including colour handprints; this cave was especially interesting since it contained footsteps of a number of people. These must have been conserved from the time in which the paintings were created, from the upper palaeolithic. The researchers engaged three professional hunters and trackers of the San Bushmen, who had the ability to interpret footprints, and asked them to provide their expertise on the possible occurrences in that cave. The results were quite sobering: in contrast to earlier interpretations by scholars, who assumed that the paintings and the footsteps where the remains of a prehistoric ritual, presumably a dance, the Bushmen experts found out the footprints to belong to of a group of children with one female adult. They also analysed the sequence of footprints and assumed that this was a group of

[14] The summary and conclusions of studies in prehistory presented here were confirmed by interview with Prof. Dr. Brigitte Röder, professor of pre- and early history, University of Basel/Switzerland.

children in play supervised by an adult, and as part of the play they had created coloured handprints on the walls. So instead of being the remains of a prehistoric ritual or shamanistic dance, their interpretation was that of something like a prehistoric kindergarten, in which the supervising adult tried to engage and occupy the children with different forms of play, maybe while waiting for the other adults to return from hunting or gathering.

When it comes to prehistory, we also have to take into account that what has been found may not necessarily be representative for the everyday life and culture of that time (Wunn 2005, 2018). So, for example in the case of cave paintings, these were preserved only in caves of which the entrance was blocked in very early times, thus the climate in the cave was constant and the paintings were preserved. Some scholars even assumed that in the Palaeolithic the inhabited landscapes were covered all over with paintings and rock art, as can be still found today in the Sahara Desert as well as in Australia. In Europe and other northern regions nothing of the sort was preserved, due to the humid climate (Trachsel 2008).

To explain findings from the Palaeolithic, very often parallels have been drawn to contemporary hunter gatherer societies, based on the assumption that both lived on the same cultural level and can thus be compared. This approach has been strongly criticized from many sides:

> "Care should thus be taken, with Wunn and against Eliade, not to mechanically compare modern hunter gatherers with their ancestors many thousands of years ago. The few hunter gatherers remaining today are, like us, modern humans with a long history, and the current state of mind cannot automatically be projected back to 50,000 years ago or to more recent times. If some of the ancient patterns have been maintained by their myths better than in other mythologies, this must be the object of additional, detailed study." (Witzel 2012, p. 261)

> "Care has to be taken if models are imported and, without any verification, are applied to prehistoric cultures of Europe. This approach is based on some assumptions which are often not made explicit, and which can be characterized as follows:
>
> - the spectrum of human behaviours follows certain basic rules and laws, and therefore under comparable conditions similar cultural characteristics develop [it is not difficult to identify the basic pattern of Jung's thinking in this description, C.R.]
> - the spectrum of [contemporary; C.R.] ethnographic examples cover all possible conditions, which are to be found in the prehistory of Europe. So, one only has to find the appropriate model.
>
> It has to be noted, that the conditions and the characteristics of human behaviour alone leave enough space for different cultural solutions. Individual accomplishments, charismatic personalities, natural events, cultural feedback (e.g., taboos) or merely chance may lead to individual history, on the base of which similar conditions lead to very different developments. Cultural structures have historically developed and are therefore mostly more individual than one would assume from the perspective of theoretical models. Also, it is more than likely that those societies which were ethnographically described, may cover only a part of all the possible cultural models. … Lastly, it has to be pointed out that in prehistory some imported models from ethnology are still in use, which there have already been refuted, a fact that may not have been acknowledged in the field of prehistory." (Trachsel 2008, p. 223; transl. C.R.)

Mithen (2003) makes clear:

> "There are no isolated stone age tribes in the world today. … We must, as always, be cautious of such accounts. Archaeologists must not be tempted by the present; they must keep returning to the analysis of artifacts and the pursuit of excavation. There are no shortcuts to the prehistoric past." (p. 358)

These warnings may lead us to the sobering insight that there are considerable limits to what we can learn about prehistory. In fact, many things, e.g., what the religious beliefs of these people were, we will probably never know, because it is impossible to be reconstructed from the few remains that we have of these illiterate societies. As was pointed out above, the remains we can find and investigate are only those able to survive the impact of climate, sedimentation etc. over tens of thousands of years – and these are probably not representative of the everyday life, the culture and the belief systems of the people.
To provide a basis of knowledge of the development of humans over what is called the Stone Age, on which later more detailed discussions of certain aspects can build, the most widely accepted theory in palaeoanthropology of the development of Homo Sapiens will now be presented.

The migration of Homo Sapiens out of Africa and over the world

In prehistory, palaeoanthropology and archaeology, it is standard knowledge today that anatomically modern humans, Homo sapiens, first appeared in Africa some 300 - 130,000 years ago and started to migrate out of Africa and all over the world around 60,000 years ago - the so-called Out-of-Africa theory. This period coincides with the beginning of the ice ages, which made the northern parts of Europe and Asia uninhabitable, forcing the Homo sapiens to live on hunting mainly large animals (e.g., mammoth, wild horses, reindeer etc.). This in turn made cooperation between the hunters necessary, and this supported the development of cooperative abilities (see also chapter “Biology”). Migration of the Homo sapiens along the shores of the continents followed, and only in periods of receding glaciers was it possible to inhabit northern zones and to move across the Bering Strait land bridge into the Americas. On the other hand, because there was so much water frozen in the glaciers the sea level was much lower, which created land bridges connecting Southeast Asia with Indonesia, Australia and Papua New Guinea on the one hand, and Siberia and Alaska over the Bering Strait land bridge (Witzel 2012, Wunn 2005).
The anthropologist Michael Witzel (2012) provides a detailed overview of this theory of the Homo sapiens’ migration and the empirical evidence which backs this concept. The theory can be regarded as very well established in anthropology, as there are empirical findings on several levels, leading to parallel results and supporting the reconstruction of the migration routes of Homo sapiens out of Africa into the different parts of the world (see also Buss, 2015). There is evidence on the following levels:

- archaeological findings
- genetic analyses
- to a certain extent: comparisons of physiognomy/physical anthropology
- comparative linguistics
- these findings go parallel with investigations in comparative mythology, which demonstrate that similarities and differences in mythological motifs as well as in whole systems of mythologies can be well explained by these routes of migration. These findings will be presented in detail in the chapter “Mythology” (see below).

Archaeological findings

Already in the 19th century and - intensified - in the 20th century there have been many archaeological findings of remains of early humans, mostly bones, skulls or in some cases only teeth, which can be traced back to the different forms and preforms of members of the species homo according to their anatomical features. These findings can also be dated, e.g., by making use of the so-called C-14 method (for details see Witzel 2012). There have been many findings which allow for a reliable and coherent reconstruction of the first occurrence of anatomically modern humans, Homo sapiens, in Africa and the migration over thousands of years of these early groups into the Near and Middle East, Asia, and to Europe, where they met the Neanderthals. There is still some debate about the confrontation between Homo sapiens and Neanderthals, but the earlier theory that Homo sapiens extinguished the Neanderthals today seems to be refuted. It is more likely that the two groups sometimes had friendly contacts, and there must have been coupling between Homo sapiens and Neanderthals, since all modern humans living today have a certain, although small, amount of Neanderthal genes in their genome (see also Krause 2019). But there is no denying that it was not an equal mix, as the findings clearly show that Homo sapiens displaced the other early forms of homo in the territories they inhabited. The spread of humans to large parts of Eurasia took place during the warm period between the second to last ice age (52,000 to 45,000 years ago) and the last one (25,000 to 15,000 years ago). The findings of human remains (bones) goes parallel with findings of stone tools as well as places of periodical settlements (fireplaces, remains of hunting etc.). Especially the stone tools can be placed on a timescale of technological development and can thus be dated. Yet another level of archaeological findings is early rock art found in France/Spain, the Sahara, central India, and Timor as well as in South Africa, New Guinea, and Australia. This appearance of the first form of human art around 40,000 years ago is often connected with the development of the human capacity to symbolize and to be creative, which is called the 'symbolic revolution'.

> "The most common scenario has the ancestors of all non-African Homo sapiens emerge from Eastern Africa, cross the narrow straits of Aden, and expand rapidly - at a rate of at least 1 km per year - along the coast of Arabia, India, and Southeast Asia (Sunda land). They reached the Andamans and Malaysia by 55 kya[15], perhaps even by 65 kya. At the famous Niah Cave in Sarawak (Malaysia), we have dates from 41 kya, including a skull from 40 kya, and on Flores we have a date of 42 kya. From Sunda Land, the emigrants turned northward toward China (Zoukoudian, 42-39 kya) and Okinawa (at 32 kya) or crossed over several narrow straits in Eastern Indonesia until they reached Timor. From there, they traversed a wider expanse of ocean to reach Australia by at least 45 kya. A similarly wide gap separated easternmost Sunda land near Sulawesi from New Guinea. … The exodus out of Africa had lasting effects: it resulted in the permanent spread of humans around the globe." (Witzel 2012, p. 245-46)
> (See attachments for a detailed map of the routes of migration)

There is, of course, a major problem here, as such archaeological findings must be interpreted, they do not speak by themselves. This is especially important in so far as we are interested in the present context with findings pointing to archetypes, so we are dealing here with symbolic, even spiritual data. Many religions and rituals, for example in Australia, use perishable materials or may even not use any materials at all which could persist. It would be

[15] Kya = 1000 years ago.

even difficult for contemporary rituals to be observed, e.g., by Pygmy, San, or Australian aborigines, to interpret them only by the material remains.

In general, in modern archaeology the experts are much more cautious, compared to the earlier mentioned grand theories, in interpreting the findings. There is a good overview in Harrod (as quoted by Witzel 2012) which demonstrates the careful methodology applied by contemporary archaeologists. The general idea is to very carefully collect and document the findings, before applying any theory or interpretation to the findings, so as to prevent the excavation from overseeing or destroying material that would speak against a certain theory. The same care is applied in the interpretation of the findings; again, the general idea is to allow the support of different theories without excluding an explanation rashly or prematurely. Just to give an impression of the course of interpretation some of the 18 steps are quoted here:

> "[…]
> - select objects of secure archaeological provenance and dating.
> - Identify that the object is a human made artifact or art. […]
>
> 14. Rule out background noise, such as carnivore marks, natural fractures, and so on. […]
>
> 1. If the subject appears symbolic, identify whether code, icon, or signal. […]
> 1. Consider limits of interpretation, amplifying meaning for them and for us. […]
> 1. Attempt to systematically reconstruct tentative prehistoric beliefs, rituals, or myths; criteria may include
>   - Coherence, consistency, and comprehensiveness of accounting for the semiotic evidence.
>   - A rigorous critical method, such as mythic group theoretic structure or set theoretic inclusion/exclusion dialectics.
> 2. Check adequacy and validity of the decoding. […]" (quoted in Witzel, 2012, p. 257-58)

It also should be noted that we can only form theories today on the base of the remains that were found. We cannot rely on the fact that what was found is representative for what has been in prehistoric times. The rule is: the absence of evidence is not evidence of absence. When we go back as far as Palaeolithic times it is also the question whether what could remain over such long periods of time tells us enough about what is really important. These limitations of archaeology have to be kept in mind when we use archaeological evidence to support or refute any contemporary theories.

Nevertheless, in the present context, the most important point for our discussion of archetype theory is the fact that the migration routes of Homo sapiens over the world can be reconstructed with sufficient reliability.

Regarding the above-mentioned route, of course the most copious remains of Homo sapiens are found inside Africa, whereas only very few early artifacts and bones have been retrieved along the above-mentioned exodus path along the southern shore of Asia. This is due to the fact that the sea level in that time was some 50 m lower because of the large amount of water frozen in the ice age glaciers. Since these early humans were so-called beach combers, which means they collected large amounts of their proteins in the form of seashells and other maritime foods, they stuck very close to the seashore. So, it can be assumed that their remains are today covered by seawater, if they are not totally destroyed. But there have been found respective remains on one major inland route, the so-called Narmada Valley corridor, which transgresses central India from the west coast to a small strip of land that leads to the Ganges plains near Patna. In this corridor many ancient remains and rock art have been found, the

latter supporting the above-mentioned theory. Also, the arrival in Australia is well-documented by early finds and can be dated to 43,000 BCE. Papua New Guinea, which was then part of the Australian continent, was settled by 32 kya and the Solomon Islands by 28 kya. Regarding Australia, there is reliable archaeological evidence for a much later immigration from Southeast Asia by around 3000 to 1000 BCE, which is also documented by the introduction of the dingo dog. It can also be traced back by the so-called x-ray style of painting in cave paintings, which is well preserved and still executed in northern Australia. This also speaks for very early prehistoric capacities of humans to cross the oceans by boat (see also below for maritime contacts).

The central and northern sections of Eurasia were inhabited, as is now believed, by around 52 to 45 kya, after the end of an earlier Ice Age allowed settlement in these northern territories. Europe was reached via the near East, which was repeated later after the Neolithic Revolution, when agriculture was introduced into Europe from the Fertile Crescent, that is the Levant, southern Anatolia and Mesopotamia (see below). Northern China, Mongolia, Siberia, Korea, and Japan were reached by settlements around 42 to 39 kya, as can be documented by the discovery of a Homo sapiens skeleton at Zoukoudian near Beijing. Central Asia, in contrast, was inhabited comparatively late as well from the East as from the West, probably due to harsher climates there.

Immigration into the Americas via the Bering Strait/Aleutian land bridge is now believed to have started around 20,000 BCE in three different waves. As has been pointed out earlier, these first immigrants into the Americas very quickly transgressed the whole continent and reached the southern parts of South America by around 12,500 BP, as is documented by findings at Monte Verde in Chile.

> "One might at first be surprised that Clovis [the first immigration wave; CR] descendants could reach Patagonia, lying 8000 miles south of the US Canada border in less than 1000 years. However, that translates into an average expansion of only 8 miles per year, a trivial feed for a hunter gatherer likely to cover the distance even within a single day's normal foraging." (Diamond 1997, p. 45)

It is important to note that the last of these waves must have happened just before the breakup of the land bridge from Siberia between 11 and 7 kya. This immigration consisted of the group of Na Dene speaking peoples (Athabascan, Navajo, Apache), which certainly brought with them Siberian types of religious ideas and practices as well as mythologies. These groups remained in the northern parts of Canada and in Alaska for thousands of years, until they finally moved into the Southwest of the United States into their today known territories, probably due to climate changes, and expelled the ancient Anasazi culture from there. Still today there are strong tensions between the descendants of this ancient culture, the Pueblo and Hopi people, and the Navajo.

> "In sum, the available archaeological evidence largely agrees with that provided by genetics, linguistics, and comparative mythology. It closely follows the two geographically and ultimately climate based migration patterns of middle and upper Palaeolithic humans: first, around 65,000 BCE, an early exodus out of Africa up to Australia … ; then, another move northward, during the interglacial period round 40,000 BCE, and into the Americas after 20,000 BCE." (Witzel 2012, p. 251)

Genetic analyses/Archeogenetics

In general, there are two ways of how analyses of the genome could be used to reconstruct the genealogy of Homo sapiens. The first way is to compare the genome of contemporary living humans: all of today's living human beings share a high amount of gene sequences in their DNA, albeit minor differences. There are special sections of the genome which are known to change (mutate) faster than others. For some of the sections the speed of change over time can also be computed (especially for the mitochondrial DNA, mtDNA). Thus, from the number of differences in these sections the distance of different individuals or peoples from the next common ancestor can be reconstructed (via principal component analysis, for details see Witzel 2012, pp. 207-231).

> "Over the past two decades, it has become well-known that anatomically modern humans (Homo sapiens sapiens) can be traced back to a single woman in Africa who lived well over 100,000 years ago. We all share derivatives of her mitochondrial genetic features (mtDNA), while that of her female contemporaries has been lost. The date of our ultimate common female ancestor can be estimated at some 130,000 years ago. Two derivative versions of her mtDNA endured in two major types (haplogroups L1A and L1B) in Africa, while all other humans descend from the East African subgroup, L3. These people departed Africa around 65,000 BCE, crossed the then much narrower street of Aden, moved eastward along the Indian Ocean shore (the southern route), and reached Southeast Asia and Australia within a few thousand years. Based on studies of bottlenecks in the gene pool, it is believed that initially only some 10,000 or even as few as 2000 migrants were involved. Over the next 40,000 years, these hunter gatherer and beachcombing groups continued to spread from their outposts along the shores of southern Eurasia all across the rest of the world. … Genetically speaking, the DNA of the Sahul land populations (New Guinea and Australia) and other refuge areas, such as the Andamans, differs markedly from that in the rest of Eurasia, where later derivates predominate. These are by and large restricted to Eurasian and American populations speaking Nostratic, Sino-Tibetan, Austric, and Amerindian languages, while their DNA is limited to populations with the early derivatives of the L3 mtDNA haplogroup, M and N, which are dated at ca. 54 kya and probably belong to the same endemic migration." (Witzel 2012, p. 210)

These analyses, for example, allow to differentiate between the general European population and some remnant populations which have been isolated during the last ice age, namely the Basque and the Sardinians. Consequently, genetic traits can be shown that stand out against much of Europe, and so do their languages and also their mythologies (or what remains of them).

The second way to make use of genome analyses in Paleohistory was recently made possible through advances in genome sequencing. For a number of years now, it has become possible to extract the DNA from prehistoric bone findings, even human remains more than 100,000 years old. From these remains the genome could be extracted and sequenced. As was pointed out above, there are enough archaeological findings of human remains on the route described above, which makes it possible to reconstruct, by referring to the above-mentioned changes in the human genome, the genetic development of Homo sapiens starting from his exodus from Africa and even before.

This approach to genome analyses is called archeogenetics. Johannes Krause, director of the research group for archeogenetics at the renowned Max-Planck-Institute for Evolutionary Anthropology in Leipzig, Germany, which was at the forefront in the scientific research in this new field, has given a comprehensive overview of the history of this research and a summary

of the findings (Krause 2019). In sum, the findings of archeogenetics strongly support the above-mentioned model of the spread of Homo sapiens over the world starting in East Africa. Based on comparable theoretical models about the speed of mutations in certain parts of the human genome, it was possible to reconstruct the migration routes from archaeological findings of human remains from the different parts of the world. The starting point of this Exodus around 65,000 to 60,000 years ago is supported. Since the northern part of the Eurasian continent was covered largely with ice or was in general uninhabitable until the end of the second to last ice age, immigration into Europe did not start before 40,000 years ago. It could be reconstructed that the route the immigrants took followed the Danube River from the shores of the Black Sea into central Europe. The arrival of these modern humans in Europe goes parallel with the emergence of Palaeolithic art in the sense of cave paintings, rock art and small figurines (see below). From these findings of artistic objects, and also from the genome analyses, it could be reconstructed that first there was quite a large population in Europe at that time, and secondly that these human groups seemingly had plenty of food from hunting so that they could find time for artistic creations. The post glacial planes and forests of central Europe were then filled with hunting game, and since these Homo sapiens hunters had high competencies in cooperation, they were able to provide lots of nutrition for their groups and tribes. These findings apply to the period between the two last glacial periods, i.e., roughly between 40,000 years and 25,000 years BCE. When the last ice age started the European hunter gatherers had to move southward again and brought their genes back into Anatolia. This again clarifies that there was not just one direction of migration of Homo sapiens, but there were, mainly due to the climate changes, several movements forward and backward over the last tens of thousands of years. This can be reconstructed through the archeogenetic genome analyses. It is important to note, because it can explain similarities in artistic objects, cave paintings, religious beliefs, such as burials, by physical contact and cultural exchange. After the end of the last ice age the genetic analyses even speak for the fact that this mobility and cultural exchange was intensified. After the invention of agriculture in the Fertile Crescent and southern parts of Anatolia, this mobility brought, together with the genes of these peoples, the technology of agriculture and ceramics to central and northern Europe via the Balkan and the Danube corridor.

It was even possible to reconstruct the last common ancestor of Europeans and Americans: In the Baikal region north of Mongolia, the so-called boy of Mal'ta was found, who lived 24,000 years ago. His genome is the missing link between Europeans and the native Amerindians, because both groups share the same amount of his genome. It could be reconstructed that the common ancestors of Europeans and Amerindians, the northern Eurasians, inhabited the large region in central Asia 24,000 years ago, which includes the steppes north of the Black and the Kaspi Sea, of Kazakhstan and Mongolia and moved from there to the West into Western Russia and Europe as well as to the east, to Northeastern Siberia and via the Bering Strait land bridge into the Americas. The genome of contemporary Europeans consists to a large part (c. 40%) of the genes from these northern Eurasians as well as from immigrants from the Fertile Crescent (c. 60%), which immigrated into Europe after the invention of agriculture.

Human remains from Stone Age times are often to be found together with stone tools, in some cases even together with artistic objects or signs for burials. This allows for drawing parallels between genetic developments, migration routes and cultural developments. In general, it can be summarized that for Neolithic times (11,000 BCE until historic times) there is clear evidence for intensive exchange between human groups over large distances; for example, there are findings of ceramics and early gold products which were produced in the Fertile Crescent and were seemingly exported to the north of Europe, to the British Isles and even to Scandinavia. The same applies to East-West trade routes. But even for Palaeolithic times, there is clear evidence for trade over long distances, so for example ornaments made from seashells from the Atlantic were found in central Germany (Trachsel 2008). There is evidence for even earlier contacts in the form of trade of early shell bead necklaces, which were found in Israel as well as in Algeria, which speak for trade contacts over large distances, at least in the north of Africa as early as 130,000 to 100,000 years ago (Diamond 1997, p. 39).
A very important consequence of the findings of archeogenetics is the insight that there are no pure human races on earth, and they may even never have existed. All human beings today share a large amount of genes, the differences are very small, and even differences in physiognomy, e.g., skin colour, can be partly explained by differences in gene expression, i.e. epigenetic variations. Lastly, we are all the offspring of immigrants. This research also makes clear that to assume something as “Jewish genes” existed (which Jung still believed) is nonsense. From the viewpoint of human genetics, it has even become impossible to speak of human races. Also, the role of genes for typical human characteristics, especially mental capacities, should not be overestimated; for example, variations in intelligence are not due to genetic factors, variants of the respective genes are similarly distributed all over the world, and individual differences can be well explained by differences in environmental conditions – in this case: education.

Physical anthropology

It is possible to further support the findings from genetic analyses with reference to anthropometric data in the sense of shape of the head, facial features, skin colour etc. While doing so, we must be careful, since visible features of contemporary humans can be misleading.

> “External body features, such as skin colour, and body size and shape, are highly subject to the influence of natural selection due to climate. It is risky to use these features to study genetic history, because they reveal much about the geography of climates in which populations lived in the last millennia and little about the history of fissions of a population. It will not tell us when the people separated, nor from which pre-existing peoples they descended.” (Cavalli-Sforza 2001, p. 115)

Nevertheless, the findings from genetic analysis can be supported by pointing to striking differences and similarities between contemporary peoples which were investigated by multivariate measurements (see Witzel 2012, pp. 202-207).

Comparative Linguistics

In comparative linguistics, it is possible to place a certain spoken language on a scale of closeness versus distance to other languages and thus create a family or genealogical tree of the relationships and in part also origins of languages, a so-called cladistic pattern (Witzel 2012, p.213; see maps and graphs in the attachments). Witzel (2012) provides a detailed overview of the findings of comparative linguistics, which allows for a reconstruction of the development of the languages of the world and, parallel to that, of the routes of migration of homo sapiens. It could also be reconstructed through archeogenetic analyses that the Homo sapiens groups that left Africa around 65,000 years ago already were capable of speaking a complex language (Krause 2019) – e.g., genes for the innervation of tongue, lips and other muscles responsible for controlled modulation of the voice, as well as for the above-mentioned language acquisition device (see "Biology"). It is impossible to speak of different levels of development of contemporary languages in the sense of more primitive versus more elaborate languages, since it can be demonstrated that all languages have developed over a comparable period of time from one shared predecessor, which is most probably the language of the early humans that left Africa at 65 kya.
For our context the crucial point is that these findings, which are well established in comparative linguistics, strongly supported the above-mentioned account of the routes of early humans in their spread over the world. We will later see, in the section on mythology, that these language families are closely related to the families of mythologies which were reconstructed by Witzel (2012). This of course has to do with the fact that myths need to be told in a certain language.

> "Once we combine the evidence of male NRY and female mtDNA lineages, … a picture emerges that largely overlaps with that of major language families and, importantly for the present undertaking, with mythologies." (Witzel 2012, p. 231)

Conclusion

It can be summarized that the overall model of the spread of Homo sapiens from Africa around the world, the routes of migration as well as the dates of inhabitation, is very well empirically founded. Data and findings from different fields of research go parallel and support this model, as outlined in detail by Witzel (2012). This model is well established in anthropology and is supported by the leading scientists in the field (Krause 2019, Diamond 1997, Buss 2019, Cavalli-Sforza 2001, Trachsel 2008).

Prehistoric maritime contacts

There is some surprising evidence for prehistoric maritime contacts between the continents, that is transoceanic contact (Witzel 2012, Mair 2006, Trachsel 2008; see also Sorensen and Johannessen 2006) - which provides even more support for the assumption of physical contacts and cultural exchange in prehistoric times.
The use of boats to travel from one coast to another across the open sea must have been practiced by humans as early as 35,000 years ago, because without this the inhabitation of

Australia would not have been possible; it can even be reconstructed that from the Indonesian Isles which are closest to the Australian continent it was never possible to see the Australian coastline. This implies that the immigrants to Australia departed into the unknown (Diamond 1997, p. 41) – which, from my point of view, tells us a lot about the spirit of these early humans.

> "Thus, early Australians and New Guineans were probably capable of intentionally traveling overwater to visible islands, and for using watercraft sufficiently often that the colonization of even invisible distant islands was repeatedly achieved intentionally" (Diamond 1997, p. 42) - 35,000 years ago!

Also (as can be seen in the map in the attachments), the inhabitation of the islands in the Pacific (Polynesia, Hawaii, Easter Islands) took place in the first, partly even in the second millennium BCE (Witzel 2012, Diamond 1997). Early maritime – and thus cultural - contacts are also evidenced by the introduction of certain animals and plants (for details see Sorensen and Johannessen 2006, Witzel 2012, Diamond 1997):

1. The dingo dog was introduced into Australia by maritime contacts from India around 3000 years ago
2. Pre-Columbian spread of Polynesian chicken and of the sweet potato to South America
3. From 13th century Hawaii there is a traditional account of a Japanese shipwreck
4. Traditional accounts by Native Americans of sightings of Japanese ships on the West Coast of North America before 1700 AD
5. Findings of antique Chinese anchor stones in California and other findings that speak for very early prehistoric Chinese transoceanic expeditions, for which there are also written reports in China (Cheng Ho).

But even in the face of such contacts, the question remains of how much these contacts could have influenced the development of culture or religion in the respective regions or populations. Since mythology and religion are generally very conservative, it can be assumed that even if there may have been such contacts, their influence may even be regarded as irrelevant.

There have been findings of European Solutrean culture types in Topper in South Carolina, Cactus Hill in Virginia, and Meadow Croft in Pennsylvania, and these sites are dated to 14,250 to 15,200 BP. This raises the question of whether there were very early European immigrants – traveling over or along the then still existing ice shields covering the North Atlantic - that contributed to northern Amerindian culture and myths (Witzel 2012).

This is a thesis strongly supported by the anthropologist and adventurer Thor Heyerdahl (1978). Already in the 1930s and 1940s Heyerdahl argued that there had been prehistoric maritime contacts across the oceans, namely from South America to the islands in the Southern Pacific, as well as from Europe/North Africa to the Americas. He became famous in the attempt to support these theories by reconstructing prehistoric boats and using them in tests to cross the oceans. He succeeded: the Kon Tiki expedition with a wooden float from Peru to the Easter Islands and Polynesia, and the reed boat Ra by which he travelled from Egypt along the North African coast and across the Atlantic Ocean to South America. These expeditions provided the evidence that technically it was possible in prehistoric times to cross the oceans. Apart from these quite adventurous footings, Heyerdahl provides a large amount of highly convincing evidence for prehistoric maritime contacts and cultural influences across

the oceans and between continents, namely between ancient Mediterranean cultures and Meso and South America, and between Peru/Chile and Polynesia. Among this evidence are some of the already mentioned crops that apparently have been introduced into prehistoric cultures from faraway lands, namely the sweet potato, the coconut, the squash, cotton, chili pepper, and others (for details see Heyerdahl 1978, pp. 228-237). Of the more speculative kind may be Heyerdahl's thesis that the earliest high civilizations in Mesoamerica, the Olmec, were actually immigrants from the Mediterranean. It actually is still an unsolved riddle in prehistory why the Olmec civilization appears out of the sudden on the Mexican/Caribbean coast around 1200 BC (see also Meggers 1975). There is clear evidence that all the later Amerindian high cultures (Maya, Aztec, Inka) are descendants from this early culture. There are surprisingly many parallels/similarities between characteristics of the Olmec culture and ancient Mediterranean cultures, namely Egyptian, Hethit and Phoinician (especially the latter were well known for their high technical capacities in shipbuilding and navigation). The following is a list of the specific parallels between these two cultures:

1. a social hierarchy, in which the kings claim to be descendants of the sun
2. brother-sister incest marriage in the royal family
3. a fully developed system of scripture
4. a striking similarity in the system of hieroglyphs of early Mexico and the Hittite culture
5. the technology of producing paper, and a manner of producing long scripture roles
6. a habit of producing colossal statues without any practical function, the production of which needed large masses of people
7. even more specific: some of these colossal statues show the face of a bearded man, who fights a colossal snake which stands on its tail, surrounded by hieroglyphic inscriptions (and it has to be noted that Amerindians do not have beards, so the question is from where they knew this motif)
8. a technology, up to the present-day unknown, to cut colossal blocks of stone and put them together into large buildings without mortar and with exact joints
9. the technology to transport these colossal blocks of stone with more than 100 tons weight over large distances
10. religious buildings and temples are ornated with plaster, showing polychrome frescoes of priest kings and processions; there is especially the repetitive motif of a man with a bird's head standing on the back of a feathered snake (e.g., La Venta)
11. the construction of pyramids of the Mesopotamian Cicurrat type, which are astronomically oriented. There are even more specific similarities: ceremonial stairs which lead to a temple on the top; a sealed and hidden gate to a secret staircase inside which leads to a grave chamber; this has a specific heptagonal cross-section, a specific ventilation system etc.
12. a specific technology of weaving and specific weaving patterns
13. a singular way to tie and knot ropes etc. (Heyerdahl 1978, pp. 87-90)

Even if one may view this theory as speculative, there is no doubt that Heyerdahl provides very convincing evidence that there has been oversea migration and trade in prehistoric times - and as soon as there is trade there is also an exchange of cultural ideas and beliefs.

Isolationism vs. Diffusionism revisited

The central point about these findings for our discussion on archetype theory is the very convincing evidence, which speaks for diffusion in a broader sense and thus for physical contact and cultural exchange on a broad level for very early periods in prehistoric times. As pointed out above, there is evidence speaking for trade connections over large distances for periods as early as 100,000 years ago. Even if these connections may be speculative, the experts agree that at least for the upper Palaeolithic well established trading connections and cultural exchanges over large distances on all continents have to be taken for granted. Above all, since we are all descendants of the first human groups which left Africa about 60,000 years ago, these groups apparently had a complex language and, presumably, as a consequence also social rules and practices as well as mythological stories, it cannot be ruled out that basic similarities between distant cultures are remnants of this common ancestry.

Witzel (2012) notes that in archaeology as well as in comparative mythology the positions of isolationism versus diffusionism (sometimes also called migration theories) have changed over time a bit like fashion (see also the above discussion in the chapter "Anthropology"). Recently again isolationist views of the development of archaeological cultures have again dominated discussions, as the general viewpoint on cultural changes is preferably explained by strictly local developments. It certainly has to be noted that there is a much greater influence of local developments, societal, climatic and other environmental conditions as classic archetype theory usually allows to consider. Nevertheless, the evidence for the above-mentioned theory of the spread of Homo sapiens over the world is so well grounded in empirical evidence, that it is difficult to deny it.

For the discussion of archetype theory this has far-reaching consequences, as it clearly speaks against the theory of isolationism and therefore also against Jung's assumption that similarities in culture, religion, mythologies etc. are the result of autochthonous developments based on innate archetypes. The ideas of innate archetypes as well as of isolationist development ('autochthonous development' in Jung's terms) are based on the assumption, even the logical requirement, that any physical contacts and cultural exchange can be excluded. But as soon as there is such convincing evidence as presented above for migration, physical contact and cultural exchange, this assumption can no longer be maintained. The similarities in religious ideas and practices, social patterns, mythologies etc. then can well be explained by physical contact and cultural exchange.

It is generally assumed in research in prehistory that as soon as humans and goods migrate, so do ideas and ideologies (Trachsel 2008, p. 249). Often the line of development or the roots of migration can be reconstructed, as in the account presented above. The case is more difficult if similar developments appear in different regions at the same time.

> "One such case is the invention of the wheel. The idea behind it is, although ingenious, but also just functional, which is the reason why different peoples at different times could have the same idea." (Trachsel 2008, p. 249; transl. C.R.)

In this context, the famous cultural virus theory (Cullen 2000) should be named, which argues that, similar to biological viruses, certain ideas or cultural elements can spread in a viral form from one person to another or from one human culture to another. This is interesting, because

this theory includes the three main principles of biological evolution: reproduction, which means that cultural elements are transmitted via repeated practice, e.g., in the case of rituals; variation, which means that cultural elements are not reproduced always in the same form, as they are adapted to local conditions; selection, which means that those cultural elements are transmitted and survive which serve existential needs or improve the adaptation of humans to their environments.

This theory is also supported by the studies of Cavalli-Sforza (2001), who found that the development of mankind is based on the transmission of information through communication and learning, which applies to all the aspects of human life, including religion. She demonstrated that, based on these fundamental considerations, the similarities can be explained by migration and communication processes of cultural exchange over time, which can be paralleled with genetic, linguistic and cultural findings.

Trachsel (2008) points out that, with the arrival of Homo sapiens in Europe around 40,000 years ago, cultural development goes much faster than biological development, which means that the habits and capacities humans acquire from that time are a consequence of cultural exchange and education and not of biological imprinting. This can also be seen in the considerable regional differentiation, which even speeds up with the beginning of the Neolithic and agriculture (see below).

Religion in the Palaeolithic

Based on the above insights concerning the spread of Homo sapiens over the world, the routes of migration, physical contact and cultural influences, we will now turn to some elements in the field of religion in the Palaeolithic, which were discussed intensively in palaeoanthropology and which are of interest for the discussion of archetype theory.

As a rule, in prehistoric research, the following archaeological findings are usually seen to be connected with cosmological ideas and beliefs, i.e., religion in the broadest sense (Trachsel 2008, p. 226):

1. graves
2. manipulations on human remains
3. depositions
4. a special treatment of symbolic or prestige goods
5. artifacts/buildings without any obvious profane use
6. representations/buildings with astronomic references
7. figurines/representations of all kinds.

Sources for understanding prehistoric beliefs around death are scarce and can only be reconstructed with a considerable amount of speculation. It seems that in prehistoric times concepts of death included two steps: first a non-material part had to be extracted from the physical body, which was dealt with in the first part of a funeral rite. The second part focused on the body, which was either transformed through cremation, pulverization etc. or was brought out of sight by burial etc. So, death is a change of status in the sense of Van Gennep's (1909) rites of passage and thus ritual must deal with this status change. In this, grave goods have a certain function, which may include farewell, deposing of goods that have become

impure through death, a signifier of status, means for the journey, an entrance fee for the other world, equipment for the other world or a signifier of status in the other world. A general insight of research in prehistory, is that the forms of burials, grave goods and the characteristic of remnants show significant regional variation as well as over time, without any systematic to be detected - so they could also be seen as a kind of fashion (Wunn 2019, Trachsel 2008).

Burials

It seems that burial rites incorporating grave goods were invented by early Homo sapiens 100,000 years ago and were spread to other groups of hominids when Homo sapiens spread from Africa to the Near and Middle East. Before these 'Out-of-Africa' Homo sapiens groups reached other parts of the world, no places referring to burials could be found in these regions. (Liebermann 1993, p. 163).
It can be stated that burials seem to be one of the universal practices, even though there is a great variety of how the dead body was placed, whether there was the use of grave goods or not, the postures and orientations of skeletal remains and tombs etc.

> "The corpses, accompanied by stone tools and parts of animals, were laid in holes in the ground and sometimes the corpses were especially protected. .. From the Upper Palaeolithic Period on, the burials manifest richer grave goods; however, it is not possible to conclude from this that religious concepts had changed. The same holds for the adoption of other burial practices, as, for example, secondary burials, in which the bodies were first allowed to decompose fully and then the bones were buried, or in the burning of bodies (evident from the Neolithic Period). From these facts it is not possible to infer the existence of a definite belief in souls; it is also not possible to determine the advent of such concepts from archaeological evidence. Even the increase in the discoveries of grave goods, occasionally also including other human remains, is evidence not for a change of religious concepts but for increased needs of the dead in the beyond—i.e., needs after death that are dependent on economic and social status in life. Analogies to recent phenomena demonstrate that it is not possible to connect particular burial customs with particular notions of the beyond, or to any other religious conceptions. .. Ritual deposition of skulls is confirmed for the Middle Palaeolithic Period. From even earlier periods, however, individual or multiple human skulls and long bones have been found within a single site (for example, associated with Peking man). It is not necessary to interpret these findings as remains of headhunting or developed skull cults; for even today some simple hunting and gathering societies have the custom of preserving such parts of corpses for long periods of time and even of carrying them around on their bodies. The same practice is observed also to have occurred in the Upper Palaeolithic and even later periods; but it is not possible to infer an elaborated ancestor cult directly from such prolonged connections of the living with the dead […]" (Narr 2021)

Nevertheless, this made scholars infer that when burials existed, it meant there were also ideas about a place beyond, a life after death, a soul etc. (Taylor 2011)

> "Arguments for the cognitive emergence of Homo sapiens often rests on the interpretation of the earliest human burials and the assumption that these, if correctly identified, imply minds complex enough for the idea of a religiously conceived beyond; these often conflate four things: i) the emergence by whatever means of religion; ii) the increasing emotional impact of death with increased intelligence (as pining becomes concrete bereavement and is then formalized by mourning); iii) specific treatment patterns for corpses, some of which may be, more or less accidentally, more archaeologically visible; iv) some belief in souls." (Taylor 2011, p. 97)

The already mentioned grand theories of the 19th and early 20th century acknowledged the fact that there was an extraordinary global diversity in indigenous religious beliefs in relation

to death practices, although Van Gennep applied his tripartite model of rites of passage also to burials and the treatment of death. Taylor (2011) states that for anthropologists internment is a puzzling phenomenon and gives a short overview over the multiple forms of burials found by archaeology: 128,000 years ago anatomically modern humans in the near East were buried with pigs jaws and burnt flint tools; 60,000 years ago in Iraq an Neanderthal was perhaps buried with a garland known as the grave of flowers; and 25,000 years ago there were elaborate burials of adults and children with hundreds of drilled sea-shell beads and deer-antler tools; there are triple burials of women who were apparently not capable of becoming pregnant buried with two men on both sides, one of them touching her pelvis. As a consequence, anthropologists have inferred that burials in Palaeolithic times may not have been practiced with all members of a community, but only with special persons, perhaps those of higher rank in the hierarchy. There is also a wide variety of practices of dealing with the dead, ranging from burial in the ground, cremation, dismemberment, etc.

> "This has caused archaeologists many interpretive problems on the assumption that the perceived patterning must be due to overarching religious views in relation to death being expressed in a coherent way, but also subject to drift or change as religious conceptions changed for whatever internal or external reasons. But it may be that it is often a mistake to attempt to 'read' the patterns for any particular archaeological culture as reflective of a unitary religious practice." (Taylor 2011, p. 95)

In contemporary standard comprehensive overviews of prehistory, no author will miss to point to the immense diversity and global variation of forms of burials and funeral rites, which is usually interpreted as speaking for the fact of different regional developments in culture and religious practices (e.g., Trachsel 2008, Narr 2021).

Palaeolithic cave paintings and rock art

In the European Upper Palaeolithic (between 40,000 and 12,000 years ago) rock art and cave paintings appear between 36,000 and 10,000 years before our time and go parallel with the appearance of Homo sapiens in Western Europe. Stone age art in the sense of cave paintings can be found in southern France and Spain, the Sahara, upper Egypt, but there are also equally old paintings found in the Urals (Belaya River), central India (Bhimpetka area), New Guinea, Australia and Eastern and especially southern Africa, for example in caves in Namibia dating about 27,000 years ago. Australian aboriginal rock art is primarily totemic and thus inherently different from at least European cave paintings. There have been a number of attempts to interpret this art ranging from hunting magic, totemic signs, mythological markers, art for art's sake, and shamanism etc.

Witzel (2012) uses these findings for his argumentation on the different levels of development of mythological systems, since this Palaeolithic art appears rather suddenly around 40,000 BCE, which has also been called the creative explosion, and he sees it as evidence for his theory off the development of northern or lower Asian mythology as a later and more developed form of mythological systems (see below chapter "Mythology" for details). He criticizes older accounts, e.g., by Joseph Campbell, who argued that this explosion is first attested and would be originating from late Palaeolithic Europe.

Together with this art, the first image and sign systems appear. It can be demonstrated that already in the Upper Palaeolithic in the settlements of the ice age hunters and in the caves used for settling and painting the first mnemotechnies systems of images and symbols can be detected. It has been claimed in Jungian circles (e.g., Jung et al. 1964) that in these first sign systems universal, i.e., 'archetypal' symbols appear, for example the spiral. In a special issue of the German scientific journal 'Bild der Wissenschaft' (2013), the global findings of such symbols were presented in a map (see attachments), providing evidence that there is not even one truly universal sign or symbol to be found in prehistoric caves respectively rock art; the sign found most often (70%) was the line – even the most orthodox Jungian would not argue that the line is an archetype. Spirals were only found in 7% of all the places, and by far not on all continents.

The assumed connections between cave paintings, shamanism, and altered states of consciousness

It was already mentioned that there have been a number of interpretations of the meaning of Palaeolithic cave paintings, starting with the assumption that these reflect hunting magic practices and rituals.

> "In the interpretation of the art of the Upper Palaeolithic, scholars have given great importance to magic because, for example, missiles (spears and arrows) were drawn on the pictures of animals. This has been interpreted to mean that an effort was made to ensure and compel the success of hunters through magical action. But this interpretation is highly speculative, and it remains uncertain what these drawings mean. It is just as difficult to decide whether or not other pictures, sculptures, abstract symbols, amulets, and similar objects were used to make magic in this and later periods." (Narr 2021)

It will be pointed out in detail in the chapter on religion that ideas of Palaeolithic hunting magic practices and rituals were based on poor excavation methods and misinterpretations of archaeological findings and are today rejected by scholars in palaeoanthropology. Another problematic interpretation was proposed by André Leroi-Gourhan (1964), who argued that the paintings and especially the symbols should be understood as sexual symbols, a viewpoint based on Freud's psychoanalysis – a viewpoint that has been dismissed by contemporary archaeology. The next step in the line of interpretations was to draw a connection between the cave paintings and assumed early forms of shamanism. The general idea, as presented by Lewis-Williams & Clottes (1998), was that shamanism was the characteristic and universal religion of Palaeolithic times. These prehistoric shamans used techniques of ecstasy, e.g., music and dancing, but also hallucinogenic substances. These states of ecstasy, as was argued, where interindividual similar all over the world and thus created the experience of universal images, which were then painted on the walls of the caves, which were thought - in this model - to have been sanctuaries or ritual places for such ecstatic experiences - which is also known as the neuropsychological model.

> "Early interpretations of the paintings (at least 30,000 years BP) focused heavily on sympathetic hunting magic, and even a rather undefined shamanism. This changed dramatically with the suggestion, first made in the late 1980s and elaborated ever since, that the cave walls were used by shamans to fix the visions that they had experienced while in an altered state of consciousness (ASC), combining the sensory deprivation of the dark with the aftereffects of trance. Crucially, it was argued

> that this process was hardwired into the human brain and that the types of images, or entoptic phenomena, seen in the ASC could be classified in clear stages ranging from initial vortexes and geometrics to final forms that were determined by cultural context. Thus the paintings were argued to represent not just the emergence of shamanic beliefs, but also a vital moment of human cognitive evolution embodying the brain's ability to enter trance and invest it with cultural significance." (Proce 2011, p. 991)

There are two major problems with this model, the reason why it is rejected by contemporary paleoanthropologists: the assumption of a worldwide distribution of shamanism, which sees shamanism as a primal or universal religion; secondly, the belief that there are typical, universal images hardwired into the human brain, which can be released by certain ecstatic techniques or hallucinogens.

> "Over the decades archaeologists and art historians have wrestled with interpreting the meaning of cave art and the role it played for people of the upper Palaeolithic. David Lewis Williams believes that the art was part of a religious experience and are graphic representations of experiences of altered states of consciousness, either created while in or immediately after coming out of an altered state. Lewis Williams points out that when people enter altered states there are some experiences that appear to be universal, because they result from the biology of the brain. One is the sensation of flying. Another is that of being drawn into a vortex, which is often perceived as the entrance to a tunnel that leads to another world such as an underworld. He theorizes that upper Palaeolithic peoples saw the caves in terms of such experiences. They were the entrails of the underworld. The walls of the caves were seen as a membrane between the everyday world and the world of the spirits." (Stein & Stein, 2008, p. 112)

In some cases, so-called theriomorphic figures can be found in the cave paintings, which depict figures with a human body, but an animal head, e.g. a bird's head or the head of a deer. In the line of argumentation mentioned above these are seen as pictures of shamans conducting rituals in the caves (Lewis-Williams & Clottes, 1998).
This parallelization of cave paintings with recent shamanistic traditions and practices has been strongly criticized recently (e.g. Wunn 2019), because this is based on the widespread mistake in anthropology to parallel a recent religion, e.g., that of the bushmen in southern Africa, with the religion of Palaeolithic groups, although these are separated by several thousand kilometres of distance and lived in very different natural environments: tropic savanna versus subarctic steppe; finally, they are separated by at least 30,000 years of history of religious development.

In an overview of research on shamanism, Proce (2011) investigates the phenomenon, its distribution and the connection of contemporary forms of shamanism in indigenous peoples with Palaeolithic/prehistorical religious forms. Historical papers about shamanism, which took an ethnocentric or even racist perspective, tended to perceive shamanism as a primitivism characteristic of lower races, a viewpoint which is definitely not shared by contemporary scholars. Also, Mircea Eliade's widely used publication 'Shamanism: archaic techniques of ecstasy', first published in French in 1951, which is actually still quoted very often - also Jung referred to it - has a number of shortcomings which are not shared any longer by contemporary scholars. Especially problematic is the focus on ecstasy, whereas in recent publications shamanism is seen as a collection of practices deeply embedded in the social and cultural structure of the respective ethnicities. It was argued by earlier scholars, and this is in the same line as the typical Jungian argumentation, that by shamanistic practices and rituals,

and especially the use of hallucinogenic substances, these would activate neuropsychological structures of the brain which then produced similar states of consciousness, in prehistoric man as well as in contemporary subjects. This neglects the fact that different hallucinogenic substances produce very different states of consciousness, but more importantly, in the actual practices of shamans as they were documented in ethnographic research it is more the ritual itself than any substances which produce ecstatic states.

> "The problematic focus on ecstasy, ultimately deriving, we must remember, from a work written in the 1950s, is also the primary reason why the modern, popular definitions of shamanism are so broad, extending far beyond what many anthropologists would accept." (Proce 2011, p. 991)

Where there is some evidence for connections between prehistoric forms of religion and shamanism in general, other findings speak clearly against the – also Jungian - hypothesis that this reflects basic universal structures of the human mind/psyche. The main point is that shamanism in its precise definition (as it is used in contemporary anthropology) can be found in a defined world region, which is called the circumpolar region, broadly including the northern regions of Europe, Asia and North America:

> "The archaeological support for the idea of the circumpolar shamanic complex is very clear. .. There are also more clearly quantified details. One example comes from the work of Karl Schlesier who in studying Tsistista (Cheyenne) religion has demonstrated an astonishing 108 direct parallels with features of Siberian shamanism." (Proce 2011, p. 991)

This speaks for the fact that shamanism has migrated with the latest wave of immigrants from Asia over the Bering Strait land bridge into the Americas (the already mentioned Na Dene wave), and that the influences have been bidirectional. This would again support the migration hypothesis of religious ideas and practices, pointing against Jung's assumption of a biologically-based universality of certain ideas.

> "The same conclusion can be reached through studies of cosmological ideas such as the ‚world support', manifested as either a tree, pillar, post, or a nail that holds up the cosmos. In material form it is depicted in various ways, for example on totem poles, and Hultkrantz has shown that the idea is found all across the circumpolar zone. He concludes that the world pillar, we may insist, genuinely represents an archaic, circumpolar world view. Since circumpolar culture, besides being an adaptation to the Arctic and sub-Arctic environment, typifies the culture of Mesolithic-Palaeolithic origins it seems probable that the world pillar and its associated mythic-ritual complex may be traced back to this time and age." (Proce 2011, p.991-92)

The above interpretations are even more strongly criticized by the palaeontologist Paul Bahn:

> "Unfortunately, this entire approach proved bogus, being founded on a distortion, misuse, or misunderstanding of the term shaman and the phenomenon of shamanism; on outdated, distorted, or utterly erroneous neuropsychological data; and on highly selective and distorted data from southern Africa as rock art motifs and ethnographic testimony. The supposed three stages of trance, one of the cornerstones of this approach, and copied endlessly from author to author without the slightest effort to check their validity, only occur when one has ingested a very small range of hallucinogens, most notably LSD, and certainly has no applicability whatsoever to ice age art. The resulting obsession with trance interpretations led to some amazing claims - for example, that the supposedly mutilated hand stencils in France's Gargas cave were the result of people cutting their fingers off so that the pain might help induce altered states of consciousness. Besides, the above-mentioned careful planning of much cave art and the tremendous artistry involved in its production cry out against it being simply an accumulated record of images seen in trance. Moreover, trance - which is never clearly defined, there are over 70 kinds - is in no way a reliable indicator of true

> shamanism, most often in Siberia, the shaman simply pretends to enter an altered state of consciousness. One of the favourite pieces of evidence used by the proponents of the shamanic hypothesis was the therianthropes, half man/half animal figures, which they naturally saw as depicting shamans. Unfortunately, such figures are extraordinarily rare in cave art (about six are known) so they cannot possibly be seen as a representative of ice age art, let alone a key to its understanding. In any case, why should one see them as shamans rather than mythical beings, or gods, or sorcerers, or men dressed as animals, or simply creatures of the imagination?" (Bahn 2011, p. 350/51)

This line of criticism in contemporary anthropology could be continued endlessly. Lewis-Williams was criticized heavily, for example, because of grounding his theory in a selection of only 40 out of thousands of cave paintings. Again, as already seen in the chapter on anthropology, such theories attempt to explain the endless variety of a phenomenon from Palaeolithic times with just one monolithic explanatory model, making it necessary to deny obvious contradictions and falsifications. For example: a maximum of 40% of the depicted animals have been hunting game and were edible by the Palaeolithic hunters – so it makes little sense to interpret them in the context of hunting magic. It is much more likely that these prehistoric humans, when creating art, pictured what was impressive in their natural environment, which was their world of living. So, the interpretation favoured by most of the contemporary anthropologists is that the animals depicted were chosen as they symbolized strength and power, maybe life itself.
Another interesting finding of contemporary systematic and unprejudiced investigations: typical artistic styles characteristic of a specific time period or region can be detected in the paintings. Typical for the Gravettien (27 000-23 000 BP) are reddish silhouettes of animals and the so-called hand negatives; both motives do not appear later.
In the Solutréen, 23 000 - 17 000 BP, the typical motifs are three-dimensional animals in action; reddish colour was no longer used, whereas black being a favourite. Typical for the Magdalénien, 17 000 - 10 000 BP, were three-dimensional black animals at rest, often with crossed legs. Such fashions speak again clearly for the hypothesis of cultural exchange - in a defined period of time all of the paintings show the same style from Spain to Ukraine. Apparently, these early hunter gatherer groups migrated over long distances. It is known from the Inuit of Greenland and North Canada even from historic times that they travelled for thousands of kilometers just to meet other groups or relatives and have festivals (Züchner 2009).

Wunn (2005) also argues against the interpretation of cave art as being representative of hunting magic. A large percentage of the animals pictured in the paintings do not belong to the usual hunting game, e.g., lions and other large carnivores. The majority of the cave paintings do not show direct correlations with the pictured species of animals and the preferred hunting game of the respective human populations. She also points out that in the Palaeolithic cave paintings only 4% of the paintings show humans or humanlike figures. Even these are often very schematic and it's not clear why, as many cave paintings show high artificial capacities of the painters in picturing animals, even using perspective etc. The abstract signs and symbols found in many caves originally were interpreted as simplified presentations of weapons, tools or cabins, but again, since the painters were able to picture animals of their environment very naturalistically, this hypothesis was given up again. What

she criticizes strongly, is that many early interpretations are based on the very poor quality of documentation of the findings of the cave paintings, which were often documented in the late 19th and in the first half of the 20th century. So, for example, the drawings of Henri Breuil, on which many interpretations were based, are viewed from today's perspective as being strongly influenced by artistic fashions of his age, and, even more problematic, also include first interpretations of the paintings. She argues that, based on this poor documentation in many cases, many of the interpretations are flawed. In sum, she argues, from a contemporary point of view of anthropology, and with modern careful methods of interpretation of such findings, it may not be possible to reconstruct the world of ideas of these Palaeolithic painters that are behind the cave paintings (e.g., only one of 1000 strokes in such paintings can be interpreted with certainty). Also, the parallelization between these cave paintings and the level of cognitive development of its artists with the art and cognitive development of children is not scientifically tenable. As pointed out above, the Palaeolithic artists as early as 36,000 years ago (e.g., Grotte Chauvet) were able to use perspective in the presentation of different kinds of animals. She points out that the later female figurines, which were highly abstracted, are a later development, which would mean that the simpler artifacts are products of a later period. So, it is not possible to draw a line from so-called primitive ways of thinking and a certain form of art connected with it to the development of thinking and artistic behaviour in contemporary children and adults, e.g., in indigenous populations. So, the argumentation in many earlier theories that Palaeolithic art is the result of a generally lower or even more immature level of consciousness (which can also be found in Jung and Neumann) today is clearly refuted.

Wunn also strongly denies the interpretation that some of the abstract signs and symbols, e.g., arrows etc., are the product of inborn archetypal patterns, in contrast. She interprets them as being the expression of acquired schemata, which were widespread in the respective world of ideas of Palaeolithic humans.

She also explicitly refers to the interpretation of pictures which mix elements of animals and humans, as for example the famous painting from Trois Freres, as the representations of early shamans. She denies this interpretation, referring to the studies of Victor Turner (1991), who found out that in contemporary indigenous peoples such mixed forms are used, e.g., in initiation rites, to stimulate the initiands to think about the differences between humans and animals, so that these paintings may best be interpreted as ways of grappling with these differences and what it is that makes one a human being.

Her general interpretation of Palaeolithic cave art is that it represents the strength, aggressiveness and power which these prehistoric humans experienced in the animals of their environment and by which they were fascinated. They are also used as symbols or signals of defence, and that could be the reason why they are used in caves, of which many were found to have been used as settlements, so the paintings would have served as a means of protection of these safe places.

Bahn (2011) summarizes the debates around the meaning of cave art with the following harsh commentary:

> "All of the blanket explanations put forward so far for cave art are deeply flawed, usually bending the facts to fit the theory, grossly exaggerating the frequency of certain pet themes, or employing

> erroneous data on neuropsychology and ethnography. Clottes has even claimed that all decorated caves are the result of magical religious practices; but it is hard to see what can justify such a statement. Those who make such claims tend to ignore the open air rock art of the upper Palaeolithic, perhaps because it looks more secular; but we know from studies of rock art in places such as Australia that open air rock art can be just as mystical, powerful, or dangerous as anything in deep caves. Future discoveries and studies will doubtless bring new questions as well as new theories, but it is vital that the evidence be assessed soberly and objectively, without preconceptions or fantasy." (p. 351)

So, for the discussion of archetype theory, it can be summarized that the contemporary state-of-the-art research in prehistoric cave paintings does not support the ideas of archetypes behind these paintings. Following Whitley, it can also be summarized that nothing speaks for the existence of a uniform primal religion:

> "Rock art is often conceptualized primarily as a hunter gatherer phenomenon, hence the occasional use of the generic term cave art, implying just this association. Although hunter gatherers commonly made this art, it was also produced by agriculturalists, occasionally even in state-level societies. Given the diversity in religions that this implies, a similar wide range of variation is known for the described origins of this art, what it symbolizes, which social and gender groups made it, and how it was used ritually -with distinctions sometimes existing even between why the art was made and how it was subsequently employed. Further complicating this circumstance, the origin, meaning, and use of rock art does not perfectly correlate with specific kinds of religious systems (such as shamanism versus totemic cults versus formal priestly religions)." (Whitley 2011, p. 308)

Prehistoric female figurines and the myth of a Great Mother

Another important topic from palaeoanthropology, which has often been used to argue for archetype theory, namely the existence of a universal religion of a great mother goddess, are the findings of female figurines from a large period of time covering the upper Palaeolithic as well as the Neolithic.

> "Small female figures, the so-called Venus statuettes, appear for the first time in the Upper Palaeolithic Period. In some cases, they are very schematically formed, and it is often difficult or impossible to recognize female attributes. In other cases, however, they are naturalistic representations of corpulent women whose secondary sexual characteristics (their breasts and buttocks) were given special prominence, though their faces, feet, and arms were almost completely neglected. Such strong emphasis on the anatomical zones that are related to the bearing of children and nourishing them easily conveys to one the idea of female fertility. Nevertheless, it is not necessarily true of all these small figures." (Narr 2021)

An example for such universalist interpretations of the findings is the theory proposed by Helen Begnini (2013). In her book, *Emergence of the Goddess*, she argues that the consistency in design of these featureless, large-breasted, often pregnant figures throughout a wide region and over a long period of time, suggests they represent an archetype of a female Supreme Creator. Prehistoric humans, she argues, connected women as creators innately tied to the cycles of nature. Through this, it was believed that women's birth and menstrual cycles aligned with lunar cycles and tides.

In analytical psychology, Neumann (1949) in his history of consciousness attempts to locate its beginnings in the Stone Age cultures of the great mother goddess, the animal mistress. He draws a line to the later agricultural societies of the Neolithic era that also worshipped still fertile femininity in the mystery of the germination and growth of plants from the

seeds, which these societies depended on for their existence.
Zabriskie (1990), in her paper on "The feminine", provides a good example for the classic conception in analytical psychology concerning the role of the feminine in the shape of the great mother goddess and its role in prehistory, connecting it with far-reaching assumptions about the roles of men and women, and male and female, in the history of societies:

> "A Great Mother from whom the race came was imagined, and as humankind came to value its existence and thus its sources, a mother goddess came to be revered, and feared, by her mortal children. For just as the earth received the dead, as trees held corpses in their trunks, and as receptacles preserved ointments for the dead, so female and woman were associated not only with the celebration, birth, and support of life, but also with grief, death, and the taking of life. When exuberant and generous, nature could be relied on to give, satisfy, feed, and protect, but in other moods, it might threaten, deprive, and reclaim. Whereas its bounty and beauty were to be enjoyed and appreciated, it's dangerous and death dealing epiphanies were to be confronted or escaped, overcome or transcended…. As human groups consolidated into tribes; tribes into cities; and cities into states, kingdoms, and empires, hierarchical structures, perceived as masculine, evolved apart from nature, which was increasingly perceived as feminine. Larger tasks were undertaken with heavier tools and organized workforces in the building of cities; longer wars were fought with increasingly complex weapons and stratified armies. Physical size and strength and phallic, single-minded aggression were admired and idealized. It may well be that male bonding and man's separateness and detachment from women and children were positively reinforced for the sake of distant hunts and battles. Such shifts in gender perspective and values were manifested in the structures of society's, in their crafts and arts, and in their mythologies and religions. As male rulers and conquerors of ascendant civilizations sought to have their agendas and appetites reinforced by male gods, goddesses in many cultures lost primary status to increasingly patriarchal and domineering father God's. As the Western world evolved, the female deities of its cultural cradles and nurseries were diminished or suppressed." (p. 268-69)

The theory that a great mother goddess was worshiped in the upper Palaeolithic and in the Neolithic, for which the female figurines were thought to be evidence, was put forward by the archaeologist Marija Gimbutas (1989). She interpreted the figurines that were found as being evidence for a universal prehistoric religion that was later destroyed by presumably Indo Germanic tribes invading the Eastern Mediterranean and near East. This theory was strongly connected with ideas of a matriarchy, characterized by a peaceful society concentrating on fertility rites, and that the memory of this golden age was later destroyed by male historians. The archaeologist and excavator of the famous Anatolian Neolithic site Catalhöyük, Mellart, supported such ideas with his interpretations of the figurines that were found in this Neolithic settlement. But the archaeologist Ian Hodder (2014), who continued Mellart's excavations in Catalhöyük, could not confirm these interpretations. The only enthroned goddess that was found, was an isolated find and thought to be a protecting figure for a granary. Figurines that could be interpreted as a mistress of the animals were only found thousands of years later in the Bronze Age. All the other representations in the Neolithic settlement were centered around hunting and wild nature and not around agriculture or fertility. So, the newest interpretations even question the role of a female goddess or great mother as being of high importance for the Neolithic agricultural societies (Hodder 2014, Fehlmann 2011). In the same line, Narr (2021) points out:

> "No known direct continuum connects these earlier Palaeolithic figures to similar ones of the early Neolithic and later periods. In settlements and shrines of these later periods are found large numbers of female figurines of widely differing types. They may have been representations of deities and

> symbols or, perhaps, votive offerings, somehow connected with female fertility. .. Not all female figures can, however, be understood merely as fertility symbols; rather, in many cases they are assumed to be house gods or representations of ancestors, and, especially when appearing in graves, as substitutes for the bodies of maids, wives, and concubines. An appearance of a large number of smaller figures suggests a votive or magical usage." (Narr 2021)

One interpretation came from McCoid and McDermott who suggested that because of the way these figures are depicted, such as the large breasts and lack of feet and faces, these statues were made by women looking at their own bodies. They suggest that women during the period would not have had access to mirrors to maintain accurate proportions. This theory also provides an explanation as to why many of the Venus figures do not have faces or heads, as the creators would need mirrors to do so. However, Michael S. Bisson critiqued this theory by suggesting that alternatives, such as puddles, could have been used as mirrors (Fagan & Beck 1996).

In general, contemporary scholars are much more careful in interpreting these findings and some are even highly critical, characterizing earlier far-reaching assumptions of a primal religion of the great mother goddess as being just fantasies without any evidence.

> "Goddesses have been important figures in many religious systems, although how important they were for the earliest religions is a matter of some debate. Some scholars believe that early human religion centered on fertility, a lunar circle as opposed to a solar one, and the worship of a goddess. This is largely speculated and based on findings of small carvings of female figures with exaggerated characteristics thought to be connected to fertility. Although matriarchy, or rule by women, never existed in the past, the role of women in these prehistoric foraging societies was almost certainly greater than that in contemporary agricultural and industrial societies." (Stein & Stein, 2008, p. 210/11)

We have to be careful, as Julian Thomas (2011) points out, referring to the ideas

> "[…] of a Great Goddess that had been developing within romantic thought during the previous century. As Hutton points out, the association of the earth with the female sublime is a thoroughly modern conception, dressed up as a rediscovered primal truth. The various elements of the Goddess theory (a central female deity presiding over a golden age of matriarchy that was eventually destroyed by patriarchal warrior bands from the North) were eventually pulled together by the classicist Jane Ellen Harrison at the start of the 20th century [who was actually quoted by Jung, CW 11, para. 197, and praised as "very instructive"; CR] . In Britain, the vision of the great goddess was championed by Jacquetta Hawks during her late career, by when she had elected to write to a more popular audience. In 'A land', Hawks described the worship of the goddess or Earth mother as having been brought to Britain from the Mediterranean, and characterizes the female deity and her son/lover as the archetypal gods of the ancient world, from which all others were derived. She went on to argue that the scarce chalk figurines from some causewayed enclosures, and the disputed figure from Grimes Graves flint mine, were representations of the white goddess. Here, Hawks was explicitly leaning on Robert Graves' work of poetic mythology, which draws together themes from Welch, Irish, Greek, and Middle Eastern texts. As with her reliance on Jungian psychology this reveals a willingness to see Neolithic religious practices as having been underpinned by symbols and themes that remained unchanged for millennia, and which relate to fundamental human dispositions. This kind of essentialism was characteristic of its time. … Like Hawks and Crawford, Gimbutas tended to conflate material from over a wide geographical area, in the service of a rather grand vision. The cost of this was a degree of insensitivity to the contexts from which figurines were recovered, and the practices in which they may have been engaged. Despite these failings, Gimbutas continued to have a massive following in the eco-feminist movement, for, however flawed her methodology, the image of a peaceful matriarchal past is a deeply attractive one. Equally, the notion of a primordial female deity remains a potent one within mainstream Neolithic archaeology, emerging periodically as a default explanation." (p. 347/75)

Jung and Neumann, of course, were very much drawn to this fantasy theory, as they already favoured Bachofen (1861) and his ideas about matriarchy.
In the same line as Thomas a number of contemporary scholars criticize those interpretations as being in total neglect of the context of the findings.

> "There also are widespread sculptures of the erroneously so-called mother goddess. This includes small statues of the Venus type that are very common in Europe (Willendorf in Austria, Desna, Don River) and beyond, for example, in central Siberia. Some of them are typically corpulent, and others, rather slender. As they commonly lack feet, they must have been inserted into the ground or in some other kind of pedestal or niche and would then be classified as cult objects. The interpretation as mother goddesses is, however, very much open to question." (Witzel, 2012, p. 260)

Wunn (2005) takes a comparably critical stance and points to far-reaching speculations around these female figurines in earlier theories. From her point of view, these Palaeolithic figurines were depictions of individual females and not a generalized type, certainly not a goddess. She criticizes that in earlier speculations, the context of the findings was not considered. For example, in Eastern Europe these figurines were found in the context of the houses and close to the hearth, which, from her point of view, point to the fact that they were used as protective (apotropaic) devices and guardian spirits. Interpretations as a depiction of goddesses are not justified. She also strongly criticizes early interpretations as being quickly inserted as interpretation of these figurines being goddesses, without considering alternatives. Even for the Neolithic cultures in Anatolia and the Fertile Crescent, she denies the existence of a ruler or lady of the animals (which for example Neumann stresses in his account of mythology), as she questions the existence of such a clearly developed form of religion and the existence of defined gods and goddesses in such an unstratified society. At best, it can be assumed that these figurines in the Anatolia Neolithic were seen as depictions of a primal mother in the sense of a far ancestor, which was worshipped.
In the same way, Lauren Talalay is critical of such interpretations: "While most of the interpretations are provocative, many are simplistic, ignoring the profound social and, perhaps, political complexities that likely motivated the manufacture of figurines in early, nonliterate societies." (Talalay 1993, p. 37). They may be idols and may have had the function of religious sacrifices but could also have been just toys for children.
In Hacilar, in Anatolia, a figurine was found which shows the meeting of a female and a male, which was quickly interpreted as being a representation of the hieros gamos (holy marriage). Wunn (2005) takes this as a good example for carelessness in the interpretation of such archaeological findings: in a more detailed investigation it was found that both figures wore clothes, which would exclude the interpretation of holy marriage.

It can be summarized that the interpretations of the female figurines that were found, and that stem from various periods of time ranging from the middle Palaeolithic to the Neolithic, range from being evidence of the universal cult of the great mother goddess on one end, to just being toys for children on the other end. These interpretations were often closely connected with far-reaching speculations about matriarchy, which all contemporary historians argue has never existed in reality (von Schaik & Michel 2020). Even if there were cults of a female goddess this does not necessarily mean that there was also a political rule of

women. It also has to be noted that these figurines were found in a territory from the Pyrenees to the Ural, covering a period of more than 20,000 years, that they were found in very different contexts (e.g., graves, houses, garbage holes etc.) and that these female figurines present only 3% of all the representations of humans and animals from the Palaeolithic and Neolithic that were found. Also, the interpretation as speaking for the existence of fertility cults is problematic since in hunter gatherer societies a high fertility is not welcome, because it may lead to problems in providing enough food for the group. For Neolithic societies which use mainly agriculture to provide their nutrition there is certainly a connection to fertility cults, but the fertility refers to the crops and not to humans. There are figurines which are interpreted as being connected with pregnancy, childbirth etc.; these were probably worn as amulets and served the function of protecting the mother to be. It also has to be noted that in the large Neolithic Temple site Göbekli Tepe, which is considered the first religious temple of mankind, not even one female figurine was found.

The Neolithic

> "The Neolithic Revolution, or the (First) Agricultural Revolution, was the wide-scale transition of many human cultures during the Neolithic period from a lifestyle of hunting and gathering to one of agriculture and settlement, making an increasingly large population possible. These settled communities permitted humans to observe and experiment with plants, learning how they grew and developed. This new knowledge led to the domestication of plants. Archaeological data indicates that the domestication of various types of plants and animals happened in separate locations worldwide, starting in the geological epoch of the Holocene 11,700 years ago. It was the world's first historically verifiable revolution in agriculture. The Neolithic Revolution greatly narrowed the diversity of foods available, resulting in a downturn in the quality of human nutrition.
>
> The Neolithic Revolution involved far more than the adoption of a limited set of food-producing techniques. During the next millennia it transformed the small and mobile groups of hunter-gatherers that had hitherto dominated human pre-history into sedentary (non-nomadic) societies based in built-up villages and towns. These societies radically modified their natural environment by means of specialized food-crop cultivation, with activities such as irrigation and deforestation which allowed the production of surplus food. Other developments that are found very widely during this era are the domestication of animals, pottery, polished stone tools, and rectangular houses. In many regions, the adoption of agriculture by prehistoric societies caused episodes of rapid population growth, a phenomenon known as the Neolithic demographic transition.
>
> These developments, sometimes called the Neolithic package, provided the basis for centralized administrations and political structures, hierarchical ideologies, depersonalized systems of knowledge (e.g. writing), densely populated settlements, specialization and division of labour, more trade, the development of non-portable art and architecture, and greater property ownership. The earliest known civilization developed in Sumer in southern Mesopotamia (c. 6,500 BP); its emergence also heralded the beginning of the Bronze Age.
>
> Current evidence suggests that Neolithic material culture was introduced to Europe via western Anatolia. All Neolithic sites in Europe contain ceramics, and contain the plants and animals domesticated in Southwest Asia: einkorn, emmer, barley, lentils, pigs, goats, sheep, and cattle. Genetic data suggest that no independent domestication of animals took place in Neolithic Europe, and that all domesticated animals were originally domesticated in Southwest Asia. There is strong evidence for causal connections between the Near-Eastern Neolithic and that further east, up to the Indus Valley. There are several lines of evidence that support the idea of connection between the Neolithic in the Near East and in the Indian subcontinent.
>
> On the African continent, three areas have been identified as independently developing agriculture: the Ethiopian highlands, the Sahel and West Africa. By contrast, Agriculture in the Nile River Valley is thought to have developed from the original Neolithic Revolution in the Fertile Crescent.

> Maize (corn), beans and squash were among the earliest crops domesticated in Mesoamerica, with maize beginning about 4000 BCE,[75] squash as early as 6000 BCE, and beans by no later than 4000 BCE. Potatoes and manioc were domesticated in South America. In what is now the eastern United States, Native Americans domesticated sunflower, sumpweed and goosefoot around 2500 BCE." (Narr 2021; see also Trachsel 2008)

Conditions for the life of humans changed considerably at the end of the ice ages; larger areas of Europe and Asia were inhabitable, for the late hunter gatherer societies this seems to have been a platitude of game to hunt. In the region of the Fertile Crescent, which is today the south-eastern part of Turkey/Anatolia, Syria and the eastern coast of the Mediterranean (Levant) as well as what is known as Mesopotamia, which is mainly today's Iraq and parts of Iran, the conditions were so comfortable, that hunter gatherers societies started building the first temples, which were excavated in the last two decades, namely Catal Höyük and Göbekli Tepe (Schmidt 2016).

In this region agriculture was invented; it can be demonstrated empirically that the original wild forms of the culturalized crops known today together with the wild forms of today's domestic animals have their origin in this region, which speaks for the fact that agriculture was invented only here and not independently but simultaneously at different places in Europe, Western Asia etc (Schmidt 2016). Even the hill is known on which the originally wild form of wheat, as it is known today, was found: "In 1997 the wild wheat still growing on the Karacadag (in Anatolia close to Göbekli Tepe) was identified as being the closest known genetic relative of modern domestic wheat" (Mithen 2003, p.67). From this region of the Fertile Crescent, agriculture together with the whole culture of the Neolithic and its religious ideas wandered into Europe, Asia and into the north of Africa (Lichter 2005). Other scholars (Trachsel 2008) point to the fact that rice was domesticated from several forms of wild rice at different places in Asia almost at the same time, that is, independently in China, India etc. The same applies to the cultivation of corn in the Americas. So, what was said above applies mainly to Europe and western Asia as well as North Africa.

The Neolithic culture that developed in the Fertile Crescent together with its religion, again, is dependent on and strongly influenced by its Palaeolithic and Mesolithic predecessors.

> "The change took place about 10,000 BCE, at first, it seems, in the Western Fertile Crescent. It was caused by the drier climate of the younger Dryas. … The new economic system was carried forward rapidly in a north western direction by population expansion, while it spread more slowly South-westward and eastward by cultural transmission (acculturation). It took 2000 years to reach the Nile Valley, and it was halted at the eastern end of the Iranian plateau and in the dry climate of the Indus Valley for another 2000 years, which were needed to develop plants that fit the South Asian climate. On the other hand, rice was domesticated separately in the Yangtze River area at increasingly early dates, and there seems to have been another area of agricultural development in the Ganges Valley. Agriculture is spread rapidly around the end of the Dryas, at the beginning of the Holocene about 11,000 years ago. This can also be shown in linguistic data." (Witzel 2012, 264)

The main finding for the discussion of archetype theory is the insight that, once agriculture had developed in a region, it quickly spread from there together with other technologies and religious ideas and social practices (e.g. hierarchies), which has been called the 'Neolithic package' (Trachsel 2008). This Neolithic package – first identified by Gordon Childe (1958) - included, apart from the technologies of agriculture and herding of domesticated animals, ceramics, architecture of settlements, specified religious beliefs, namely the cult of a Great

Mother Goddess (Mithen 2003). This cult centres around cycles of life, death and renewal, the seasons etc. because agricultural societies are dependent on these cycles and deal a lot with the right time for the sowing of seeds ('burial of the dead body') which 'die' in the ground, but miraculously their life is renewed in spring (see for example the Demeter cult and the mysteries of Eleusis). It should be noted that, contrary to Jung's and Neumann's statements, the idea of a Great Mother Goddess is not universal but restricted to those territories which received the Neolithic package originating in the Fertile Crescent, so it can only be found in agricultural societies in Europe, Western Asia and North Africa, which were influenced from the Near East cultures (Witzel 2012). The same applies to the idea of rebirth - according to Jung a universal archetype – which is closely connected with the mythological structures around the idea of the great mother goddess, i.e., ideas of a cycle of death and renewal. These can only be found in Neolithic cultures influenced by the Fertile Crescent, and later spread with the missionary activity of Buddhist monks along the Silk Road to other parts of Asia and as far as Korea and Japan.

There is more evidence for the close connection between agriculture and the Mother Goddess: the Neolithic temple at Göbekli Tepe, in the foothills of the Southern part of the Anatolian highlands. This first Temple of mankind, built in a period starting 12,000 to 9000 years ago, before the invention of agriculture, contained images of a number of animals, among them foxes, bulls, snakes, spiders, birds, lions, wild boars – but no Mother Goddess, not even one female, there are only male figures. Some of them bear irrigated phalluses, which reminds us of the apotropaic figurines and symbols of the upper Palaeolithic. Therefore, paleontologists (Schmidt 2016, Wunn 2006) interpret these images of animals on the temple walls, again, as Guardian figures protecting the place from evil powers etc. Since the constructers of the temple were still hunter gatherers, the imagery provides evidence that the cult of a mother goddess is initiated with the invention of agriculture. This would also clearly speak against the assumption of an archetypal nature of the Great Mother, as it can be demonstrated how closely connected this belief is with the conditions of an agricultural society, and it therefore is not to be found in hunter gatherer societies (Mithen 2003).

The reason for the quick spread of agriculture and its associated practices could be that agricultural societies grew faster and needed new territories, but also that the quality of living improved so much through agriculture that hunter gatherer groups that came in contact with these technologies, quickly changed to this new form of existence. Whatever the reason, we have to note that as soon as a society has taken over agriculture and its technologies, it can be found that the societies have intensive social and political contacts with neighbouring societies and also with regions far away via trade.

> "The Middle East served as the source for many animals that could be domesticated, such as sheep, goats and pigs. This area was also the first region to domesticate the dromedary. Henri Fleisch discovered and termed the Shepherd Neolithic flint industry from the Bekaa Valley in Lebanon and suggested that it could have been used by the earliest nomadic shepherds. He dated this industry to the Epipalaeolithic or Pre-Pottery Neolithic as it is evidently not Palaeolithic, Mesolithic or even Pottery Neolithic. The presence of these animals gave the region a large advantage in cultural and economic development. As the climate in the Middle East changed and became drier, many of the farmers were forced to leave, taking their domesticated animals with them. It was this massive emigration from the Middle East that later helped distribute these animals to the rest of Afroeurasia. This emigration was mainly on an east–west axis of similar climates, as crops usually have a narrow

> optimal climatic range outside of which they cannot grow for reasons of light or rain changes. For instance, wheat does not normally grow in tropical climates, just like tropical crops such as bananas do not grow in colder climates. Some authors, like Jared Diamond, have postulated that this east–west axis is the main reason why plant and animal domestication spread so quickly from the Fertile Crescent to the rest of Eurasia and North Africa, while it did not reach through the north–south axis of Africa to reach the Mediterranean climates of South Africa, where temperate crops were successfully imported by ships in the last 500 years. Similarly, the African Zebu of central Africa and the domesticated bovines of the fertile-crescent – separated by the dry Sahara Desert – were not introduced into each other's region." (Narr 2021; see also Diamond 1997)

These trade connections and activities were intensified after the invention of metallurgy, as tools from metal were so immensely effective, and on the other hand the technology to produce metal was quite elaborate (Trachsel 2008). There is even some evidence pointing to the fact that in a territory including the whole of Europe, Western Russia, Anatolia and the near East there was a standard measure for cast ingots made of bronze. These standard casts were found all over that territory, and it is assumed that, since metal does not decay, they were used as a standardized currency, which also allowed for an accumulation of property as a result from successful agriculture (Trachsel 2008, p. 66). The intensification of long-distance trade connections also applies to the trade of salt (e.g., Hallstatt culture) and amber; there are also signs for a veritable ceramics industry with an intensive export economy. In burial mounds of the local elite of that time, so called "Fürstengräber" (Princes' tombs), e.g., in Ukraine, but even as far away as in Sweden, imported ceramics from Greece as well as gold jewellery from the Mediterranean can be found.

This is interesting for a discussion of archetype theory insofar, as that if there are trade connections it can be assumed that this was accompanied by an exchange of ideas and practices. On the background of these insights, it has to be assumed that cultural exchange between the near East, the Mediterranean and the rest of Europe, the north of Africa as well as way into Asia was established as early as 8000 years ago, which makes it almost impossible to argue for an isolationist position, as Jung does.

Civilizations

As a result of the Neolithic Revolution about 6500 years ago the first civilizations developed, and in contrast to the pre-Neolithic nomadic societies, these now developed hierarchies of gods, whereas it is assumed that non-sedentary societies do not have polytheism.

> "The decisive factors that brought about the early civilizations were the new kinds of economic and social organization, the large-scale exploitation of human energy, the formation of ruling classes, hierarchical organization, and the administrative division of labour. Under such conditions polytheism, which had undoubtedly been nascent before, could develop fully. The social order is mirrored in the conception of city and state gods and of a hierarchically organized "state of gods" with a division of labour. The concentration of power and people in one place, in contrast with the wandering of earlier nomadic cultures, enabled fixed central shrines to become influential." (Narr 2021)

Summary on religion in the Stone Age

Wunn (2005, 2018), in her detailed overviews of archaeological findings and the different interpretations around prehistoric religion, pledges for a very careful approach to these

matters. Again, she reminds us of the fact that the few things that have been found may not be representative at all of the world of ideas of these early humans and prehistoric societies. She concludes that, to the present point, it may not be possible to reconstruct the religious world of these prehistoric human populations, if they even had religion at all - of the latter we cannot be sure, there are many alternative interpretations for the findings presented above. She is therefore, in general, very critical of earlier accounts such as those of Tyler (1871) or Eliade (1954, 1959, 1964). This applies to the following constructs, theories and interpretations:

The assumption of widespread **cannibalistic practices** in the Palaeolithic were found to be misinterpretations and could not be verified with the findings, but where the product of preconceptions. These were followed by strong interpretations, attempting to justify certain theories. The typical scratches that were found on prehistoric bones, which gave rise to the assumption of cannibalism, could be well interpreted as being the result of scavenger bites or just of mineralogical processes.
The same applies to the assumptions of **hunting magic** practices, especially so-called **bear cults**, which did not withstand critical follow-up examinations. There is absolutely no archaeological evidence which could justify these interpretations. And again: if there are such practices to be found in contemporary hunter gatherer societies this is by no means proof of the fact that such practices existed in Palaeolithic times. Also, the assumed sacrifices in the aftermath of hunting are mere speculation and can even not be found in contemporary hunter gatherers as for example the San bushman of the Kalahari or the pygmies in the Congo.
Palaeolithic cave paintings are understood as a form of action art, by which the prehistoric humans attempted to understand their environment. Therefore, they tried to paint those beings, mainly animals, in their surrounding environment which impressed them most.
It is probably the same with the **female figurines**: Wunn argues that in the beginning these depictions were representations of individual women but were also an expression of the female power of giving life, which was certainly highly impressive for prehistoric humans. Only later, she argues, these depictions of females became more abstracted, and were used for protective purposes. In general, all these forms of art can be seen as an expression of the fascination of prehistoric humans with the facts of life and death and the power connected with it. She is very critical of the interpretation which sees these female figurines as expressions of a Palaeolithic great goddess or mother goddess, as she argues that such developed forms of religion in the sense of a Pantheon or individual gods and goddesses did not exist in that time. This would only start with the Mesolithic, where sculptures can be found of the vulva presenting or heraldic female (e.g., Catal Hüyük). They can be seen as a continuation of depictions from the upper Palaeolithic which served the function of protection (apotropaic). These presentations clearly can be interpreted as expressions of a cult of a primal mother or female goddess. But again, and in contrast to typical Jungian interpretations, it can be demonstrated that this cult of a female goddess initiated in Anatolia and spread from there, together with the technology of agriculture, to Europe, into Asia and partly into North Africa. It has to be noted, also in contrast to Neumann's assumptions, that the cult of the mother goddess is neither universal nor pan-human but restricted to those regions in Europe and Asia

(and partly North America) that were influenced by the religious ideas and technology initiated in Anatolia and the Fertile Crescent. So, already in Anatolia, not only a mistress of the animals can be found, but also a lord of the animals. So, it is not fully clear, whether the female goddess had a position of primacy. It can even be generally said that the Neolithic religion developed in the Fertile Crescent and from there spread into those regions and territories which also took over the new technology of agriculture - and in those territories which remained to be hunter gatherer societies no signs for this developed Neolithic religion can be found. It also has to be pointed out that, even where the Neolithic religion was taken over, it was partly strongly adapted to regional practices and ideas, as can be seen for the different consecutive cultures in Europe which can be identified by their ceramics (Linienbandkeramik, Glockenbecherkultur etc.), some of which can clearly be differentiated from the Anatolia Neolithic culture (so for example Neolithic cultures in central Europe, from a certain point on, practiced collective burials for the dead and developed special structures for these, e.g., megalithic structures, in contrast to practices in Anatolia; also the houses and the settlements were quite different from those in the Fertile Crescent). From a certain point on, the European cultures also developed their own original forms of cults/religious practices, as can be seen in the megalithic culture which originated in the West of Europe (Brittany etc.).

With the Neolithic culture of Stichbandkeramik in central and western Europe the first **megalithic structures and stone circles** can be found – it has to be noted that megalithic structures can be found only in Europe and the near East. These stone circles are oriented along the cardinal points and other important astronomical data in the course of a year, the most important of which is the winter solstice. But these astronomical points are not the main focus or use of the stone circles, as has been argued in a number of dubious publications, some of which even assumed that the stone circles and other megalithic structures were something as early astronomical centres (Burl 1999). In contrast to this assumption, contemporary archaeologists assumed that the stone circles were mainly burial grounds, and the astronomical orientation points were used as a calendar serving the aim of memorizing the dead.

> "An especially noteworthy kind of burial is that of the megalithic (huge stone) graves that appear in various areas from the Neolithic Period on. It is probable that in this practice there was also a vital believed link between the living and the dead, and that occasionally sacred areas and gathering places were connected with such graves. The practices of the megalith builders were probably rooted, to a considerable extent, in ideas about the dead and in ancestor cults to which their stones gave a particular durability and a monumental form. It is more difficult to explain the individual erect stones (menhirs), which, of course, could be the symbol or seat of ancestors, especially where they show indications of being sculpted in human form. It surely would be a mistake, however, to look for a uniform interpretation of all megalithic monuments or even to speak of a distinct megalithic religion. The megalithic monuments are rather to be understood as a complex of grandiose manifestations of ideas that could well have been diverse, but among which the cult of the dead, nevertheless, played an important role." (Narr 2021)

Apart from this important religious function, they were also used as a calendar for important agricultural data, such as when to sow the seeds. Another important function certainly was to mark territorial claims (which became especially important in Neolithic times with the first agricultural societies), therefore the structures are often to be found on hilltops where they could be seen from afar. This is also the reason why the structures had to be gigantic, so to

present the strength and power of the building group. There is also an interesting economical interpretation of why at a certain point in the Neolithic these megalithic cultures suddenly emerge: after a few thousand years of agriculture the soil had become impoverished, which led to a situation of food deprivation, making it even more important to mark the claims on certain territories.

In some of these megalithic graves rock carvings of menacing eyes were found, which by contemporary anthropologists of religion are connected with the above-mentioned mother goddess of the Fertile Crescent, which in central and western Europe took over the role of a goddess of the underworld. The menacing eyes have the function to protect the buried from evil influences. The same applies to representations of necklaces or pairs of female breasts. This goddess of the dolmen, a goddess of the underworld, also had the function of a goddess of fertility, which reflects the close connection of death and life which was already present in the figurines from the Fertile Crescent. A remainder of this early goddess is the goddess Demeter of Greek antiquity, which also connects these two qualities and is thus a goddess of agriculture. Beyond these obvious functions, we are not in a position today to be able to reconstruct the religious beliefs and mythological stories which were certainly connected with these megalithic structures.

Again, there are considerable regional differences, as for example the early mother goddess in Eastern European Neolithic cultures does not develop into a goddess of the underworld but becomes a protector of the home and the hearth. There is also a different development on the islands of Malta due to their geographical isolation. These islands were populated around 6000 BCE by settlers from Sicily/Sardinia, who brought, together with the technology of agriculture, the religious beliefs and practices which can also be found in Anatolia. Initially, the Maltesians continued the religious practices which they brought along, mainly funerals and connected rituals together with the belief of a goddess of the underworld. Starting from these practices, the people on these islands developed a very complex religion around a death and temple cult, building large stone temples with megalithic structures, which served as a place for collective burials and a highly developed ancestor cult. Speculations about astronomical functions of these temples could not be confirmed.

It is clear that very early there were **burials**, but again it is not necessary to assume that they were connected with religious beliefs. Prehistoric humans certainly have realized very quickly that the remains of dead humans were quickly attacked by scavengers and other animals. So, it may have been the case that they were just mourning their loved ones and relatives and tried to protect them from being torn apart by animals; thus, the burials may have just had the function to protect the dead body. It could also be the case that burials were a consequence of practices to support the mourning process. But it is also quite reasonable to assume that from a certain point on the burials served a religious function and were connected with beliefs about a life after death or a world beyond. This again may have served the function to make the reality of death acceptable. This religious dimension of the burials becomes quite clear in the upper Palaeolithic, where there can be found more complicated ways of burying the dead, of keeping up the memory of the ancestors, partly even findings of tools, weapons etc. in the graves which point to the idea of a world beyond, to which the deceased go. These

practices increase in the Mesolithic (ca. 12 000 BCE), now burial grounds can be found, and in some graves, dogs are buried with their owners. In the Mesolithic settlements that were found in Anatolia, e.g. Catal Hüyük, the dead were buried beneath the ground of the houses, which again shows the need for staying close to the deceased. Here first signs of rituals can be found, which increase in the transition to the Neolithic. In Anatolia and in other places now remains can be found which point to a practice of preserving the skulls of the dead (probably as the location of the mental power), which were cleaned from the flesh, separated from the rest of the remains and in some cases were resurrected and worshipped as representations of the ancestors. But it also has to be noted that even in the Neolithic there are findings of practices which point to a mere disposal of the remains of the dead into garbage pits; it is therefore questionable whether all of the human populations in the Neolithic had ritual burials and the connected ideas of a life after death. Also, there are many regional differences. Wunn summarizes:

> "This development of religion did in no way develop from the primitive to the elaborate, from the simple to the complex. Instead, our cultural ancestors took a certain way in terms of religion and beliefs of a beyond with their care around the fate of the dead, which for the following thousands of years dominated religious beliefs, and finally reached a climax in the sense of a richness of forms in the temples of Malta, which is only paralleled by the cities of the dead in Egypt. From this care for the dead and the associated ideas about transcendent beings the whole variety of prehistoric religions developed, on which the religions in historic times have built." (p. 465, transl. C.R.)

The overview presented by Wunn clearly shows that in some cases there is a clear historical continuity in the sense of cultural transmission of certain patterns, e.g. the belief in a primal mother, which developed into a mother goddess and goddess of the underworld, whereas in other cases there is a sequence of clearly unrelated practices, which develop seemingly out of nothing, and vanish again, e.g. funeral practices: in Europe alone there is a great variety of forms of burials, deposition in the garbage, individual burials versus collective burials, burials in the ground, below the houses, in specialized burial grounds and graveyards; there are graves with the bodies lying stretched out, alone, a man with two women on both sides, with dogs, horses, weapons, ceramics, ships or without anything, in an embryo position, sitting, in the squat, in caves, in temples, etc. etc. – in short: an endless variety. There is definitely no evidence speaking for the manifestation of any kind of archetypes which manifest autonomously and in isolation again and again.

Very much in the same line, Narr (2021) summarizes these insights in the following conclusion, which again sheds a light on the equation of prehistoric humans and their practices with contemporary 'primitives':

> "Religion is always closely related to other realms of life, such as economic activities. These relations are partly direct and partly mediated by social forms. The latter are, on the one hand, at least partially dependent on economic conditions; on the other hand, social structures influence the formation of religious phenomena and often serve as models for their elaboration. In a negative sense, then, it is often possible to eliminate certain religious phenomena as inappropriate to a particular society. It is inconceivable, for example, that the religious conception of simple hunters and gatherers included an elaborately organized hierarchy of gods with detailed division of labour between the individual figures. Similarly, it is a mistake to attribute to hunters and gatherers conceptions that are bound up with agriculture and the fertility of fields. In a positive sense, however, certain economic and social conditions will encourage the development of certain corresponding religious conceptions. Animalistic notions will be especially effective in situations where animals play a large role as partners of humans.

> Nevertheless, the spiritual ties to animals will be considerably different among hunters or agrarian peoples who still find it necessary to rely heavily on hunting for their meat supply as compared with pastoral peoples. In fully agrarian cultures, on the other hand, ideas about the fertility of fields and cultivated plants play an important part; they are connected with other notions about fertility and influence other spheres of life.
>
> A study of very simple hunters and gatherers of recent times shows that several religious conceptions generally considered to be especially "primitive" (e.g., fetishism) hardly play an important part, but rather that, among other things, the supposedly "advanced" conception of a personal creator and preserver of the world does play an important part. Such a belief could never be discovered by examining archaeological sources—the material remains—and hence cannot be ruled out for the Early Palaeolithic Period. Whether or not the sacrifices in that era involved divine creators or preservers or other beings can only be a matter of conjecture. Features of animalism, magic, and various other views and practices may have played a role, but probably less so than in later epochs. The animalistic features encountered in the art of the Upper Palaeolithic Period were most likely only a part of the religion that existed at that time. Among present-day "primitives" the animalistic realm often occupies only a lower sphere of what can be considered religious, and beyond and above that sphere are still other notions about gods." (Narr 2021)

Conclusions

As far as archetype theory is concerned, from these descriptions and insights the following conclusions can be inferred:

1. Jung parallels historically early forms of religion, rituals, social practices etc. with forms found in so-called primitive cultures of recent times. This conclusion is refuted in contemporary prehistoric sciences, since recent primitive cultures apparently have much more complex religious belief systems and practices. As a result of these changes in the viewpoint of archaeology and prehistory the term primitive is not used recently for present day hunter gatherer societies.
2. As the above descriptions and insights point out clearly, the ideas and imagery of early religious forms is closely connected with the environmental, social and economic conditions of these early human groups. So, for example, the idea of death and rebirth only comes up in agricultural societies of the Neolithic, which is of course connected with their experience of "burying" the seed which is paralleled with its death, and its rebirth at the beginning of vegetation.
3. **There is no such thing as a primal religion.** Early forms of religion and religious practices, e.g., in the sense of burials, can be found as early as 70,000 years BCE, maybe even earlier – although findings of burials do not necessarily imply religion, as was pointed out above. As we know from archeogenetic research, since that time Homo sapiens has migrated starting from Africa practically all over the world. So, the most plausible explanation for similarities in early forms of religion is the theory of diffusion. On the other hand, Jung's idea of "autochthonous development" of such ideas in different places of the world stemming from archetypal structures being rooted in biology/genetics is not only not plausible, it is also not necessary, since the first explanation is sufficient and can well explain similarities where they can be found. This refers to the principle of economical explanations in the sciences (also known as 'Ockham's razor'): if there are alternative or competing explanations, the most economical one should be favoured, i.e., the one which has the fewest prerequisites

or makes the fewest assumptions. Since the evidence for the Out-of-Africa hypothesis, i.e., migration and diffusion, is so overwhelming, and contemporary insights in all of the above-mentioned fields of knowledge (biology, anthropology etc.) clearly speak against Jung's assumptions, the choice to be made here is quite clear. Even more than that: the migration of certain ideas and beliefs in the field of religion, namely the cult of a great mother goddess and of rebirth – both of which are clearly not universal or pan-human, which means not archetypal in Jung's sense – can be reconstructed in detail from their origins in the Fertile Crescent to all of the other parts of the world where they could be found. These migrations of ideas can be reconstructed in much more detail for mythologies, which will be the topic of the following chapter.

9 Mythology

The controversy of isolationism versus diffusionism starting in the 19th century initially centered not so much on religious ideas and social practices, but on the striking similarities found in mythologies from all over the world. The majority of the fairy tales found throughout the world can be arranged into just about 100 categories and for each type examples can be found from completely different parts of the world (Aarne & Thompson 1964; Üther 2011).

> "Even a casual reader is struck by the fact that many myths of origin are very similar to each other, even when they are found in distant parts of the globe and often separated from each other by long periods of time. One is struck by the constant reoccurrence of very similar themes in the religious and spiritual lore of the various populations around the world. In the traditional Polynesian myths of origin we hear of the beginning of the world that is very much like that of the medieval Mayas and Icelanders, the ancient Romans and Greeks, bronze age Indians, Mesopotamians, Egyptians, and Chinese. To quote just three cases:
>
> > When on high in the heaven had not been named, firm ground below have not been called by name, nor to but primordial Apsu, their begetter, and Mummu Tiamat, she who bore them all, there what is coming living as a single body; then it was that the gods were formed. (Enuma Elish, Mesopotamia, early second millennium BCE)
> >
> > There was neither being nor nonbeing that, nor intermediate space, nor heaven beyond it. What turned around? Where? In whose protection? Was there water? Only a deep abyss. Darkness was hidden by darkness, in the beginning. A featureless salty ocean was all this universe. Arjuna, covered by emptiness, was born through the power of heat as the one. (Rgveda, 10.129, India, circa 1000 BCE)
> >
> > Before there was any light there was only darkness, all was night. Before there was even darkness there was nothing. It is said in the karakia, at the beginning of time there stood the Kore, the nothingness. Then was Te Po, the night, which was immensely long and immensely dark. The first light that existed was no more than the blowing of the warm, and when sun and moon were made there were no eyes, there was none to see them, not even kaitiaki. The beginning was made from the nothing.(New Zealand, Maori, contemporary)
>
> The three myths selected here have much in common: accounts of the origin of the universe and the world, the idea of primordial chaos, darkness and great waters, and the initial absence of heaven and earth (and also, the power of the spoken word in naming parts of the universe)." (Witzel, 2012, p. 2)

A comprehensive definition of myth as a narrative (Witzel, 2012, p. 7):

> "that is told or recited at certain special occasions
> that is standardized (to some extent)
> that is collectively owned and managed (often by specialists)
> that is considered by its owners to be of great and enduring significance
> that whether or not these owners are consciously aware of this point contains and brings out such images of the world (a cosmology), of past and present society (a history and sociology), and of the human condition (an anthropology) are eminently constitutive of the life society in which that narrative circulates, or at least where it circulated originally
> that, if this constitutive aspect is consciously realized by the owners, may be invoked ideologically to explain and justify present-day conditions
> and that is therefore a powerful device to create collectively underpinned meaning and collectively recognize truth (regardless of whether such truth would be recognized outside the community whose myth it is)."

In the 19th century there was a prominent school in anthropology which assumed a close link between myth and ritual. In this perspective myths are derived from rituals or are at least associated with rituals, for example as spoken parts of rituals. This myth and ritual school was also called functionalist school. Early proponents were Smith, Tyler, Frazer, and Durkheim, and in the first half of the 20th century also empirically researching anthropologists as for example

Malinowski and Eliade followed this model. The functionalist school saw myths as a justification for beliefs, customs, or social institutions, which are therefore closely related to social needs and are also used to stabilize patterns of local society.

Transcultural Similarities in myths

In ethnology, striking similarities in the narrative motifs of ethnic groups living far apart from each other had been apparent for a long time and from 1880 set into motion a decade-long debate about how this convergence of ideas in fairy tales and myths could be explained (Eisenstädter, 1912), which was already referred to as the isolationism versus diffusionism debate. A large-scale collection of individual motifs of which myths are built was investigated by Stith Thompson already in the 1930s (Aarne & Thompson 1961), although he was later criticized for a heavy bias towards Europe, the near East, Asia and the Americas, neglecting sub-Saharan Africa, New Guinea and Australia (Witzel 2012).
The outstanding proponent of isolationism was the theory of elementary thoughts, "Völkergedanken" (Bastian 1881) which stated that the mythological convergence expresses the psychological homogeneity of all people.

> "From all sides, from all continents, we encounter in similar conditions a homogenous human thought, an iron necessity of how the plant forms cell ducts or milk vessels depending on the phases of growth, drives out leaves, sets knots, flowers unfold. The fir of the north is different under climatic or local variations, the palm of the tropics is different, but nevertheless the same growth law is present in both." (ibid p. 14; transl. CR)

This quote also demonstrates the deeply evolutionist viewpoint inherent in isolationism. This general idea, that the similarities in mythologies go back to universal innate characteristics of the human psyche, and therefore similar motifs and ideas develop independently and autochthonously, were repeated again and again in the 20th century (Witzel 2012). It was precisely these thoughts, which were extremely popular in the scientific world in 1900, that Jung incorporated into psychology with his theory of archetypes.
The above-mentioned Stith Thompson and his school supported the diffusion theory in so far as they argued that motifs and tale types with the same motifs arranged in the same order spread from a common center. So, for example myths from North American Amerindians have strong similarities with those of Siberia and northern Europe, and this can be explained through physical contact over the Bering Strait land bridge that existed until around 11,000 years ago. In the same manner the Russian anthropologist Yuri Berezkin (2005) has collected motifs from all over the world and presented them in a large number of maps, which allows for the investigation of the spread of single motifs e.g. from North and Central Asia to the Americas (Witzel 2012). The classical form of diffusion theory goes back to the German anthropologist and Africa specialist L. Frobenius (1904; quoted by Jung at least 50 times in his works, while he apparently ignored that this was the counter position to his own), who argued that the worldwide similarities have spread via diffusion from the great ancient civilizations, meaning mainly those of European and near East antiquity. The theory became even more popular through his famous student H. Baumann (1936), who assumed a "world myth" that existed around 3000 BCE, which he located in some archaic high cultures between the Nile

and the Indus; this world myth then spread from the centre to Iceland, China and Peru. It is important to note that from this time on diffusion theory specifically meant a worldwide distribution of myths in the form of a gradual dispersal from a known or assumed centre. The problem is that this theory was not very difficult to be refuted since it was not possible to identify such a centre of all mythologies. In the course of this debate the more general idea of diffusion, which means a cultural transferral via physical contact or migration, without arguing for a cultural centre of these ideas, was rejected together with the classical form of diffusion theory.

Related to Jung's ideas is Joseph Campbell's (1971) approach, who argued in a similar fashion with biological/cognitive similarities which lead to similar motifs in mythologies. Problematic in this approach is the distinction Campbell makes between reasoned classical ancient near Eastern and European mythologies opposed to primitive mythologies of peoples in sub-Saharan Africa – again, the general idea that in contemporary indigenous people there is a primitive mode of thinking and living preserved comparable to that of stone age times. Witzel (2012) criticizes this assumption:

> "It assumes that certain ethnic groups of modern Homo sapiens lived or still are living at different levels of consciousness! But all anatomically modern humans can look back to some 130,000 years of psychic and religious development. … In sum, it is not different levels of consciousness but the physical and social environment as well as the position and importance of local spiritual leaders that condition local systems of mythologies" (p. 14-15)

Another important approach to the similarities in mythologies is that of Claude Lévi-Strauss (1977), who argued with his central concept of binary structures, which are used by all peoples in the world to structure their experience of the world. Lévi-Strauss was very sceptical of explanations referring to historical developments, but instead stressed the tendency to organize human experience in binary sets of opposites which appear in many societies. This organization into binary opposites is used for the purpose of understanding the world and explaining its origin and its condition. This allows for the typical structuralist method of analysis which is applicable to all myths and texts. The structures are inherent in humans and their languages, comparable to the features of language as they are seen in the works of the structuralist Noam Chomsky (1978), so that myths think themselves without human awareness. Lévi-Strauss was convinced that the binary tendency reflected our bicameral mind, a viewpoint that is strongly criticized by Witzel (2012), who stresses the point that the structures are the choice of the societies involved, and these affect local social structures. Lévi-Strauss was also criticized because his theories dealt mainly with Amerindian mythologies, which restricted the possible pool for comparisons.

> "In sum, both currently fashionable explanations cannot explain the extraordinary amount of global similarities and congruencies of myth, whether such explanations supposed diffusion (Frobenius, Baumann, S. Thompson), psychic archetypes (Jung, Campbell), or bare-bone, binary structures of mental arrangements (Lévi-Strauss). Such continuities are found in large areas of the world, but they are neither thinly distributed nor found on all continents." (Witzel 2012, p. 15)

Predecessors of Jung's thinking on mythology can be found especially in the work of Edward B. Tyler (1871) on primitive religion. Tyler was fascinated by the correspondences between mythologies from all over the world. He first developed the idea that these similarities can be

explained by the identical structure of human consciousness and the human mind in general, which under similar conditions produces the similarities. On the other hand, Tyler did not exclude the possibility of diffusion as an explanation for the similarities. Tyler systematically investigated similarities in myths from all over the world and assumed that they are based on a commonly shared stock of motifs, which have developed over time in the course of the development of human society. One of these motifs are the so-called nature myths, which, following Tyler, are the result of an infantile immature mind which attempts to find explanations for natural phenomena, such as thunder. The childish immature mind tends to personify and anthropomorphize these phenomena, thus producing the idea of a thunder god. In general, the result of these human tendencies is animism.

This theory and the general approach behind it have been strongly criticized by contemporary scholars of religious studies: the problem is that the theory, which then leads to a classification of objects (in this case myths) is first and the empirical findings are squeezed into that schema. A second problem is that inherent in the classification scheme are value judgments, which are not reflected. These earlier theorists did not reflect the fact that every classification depends on a theory. In Tyler's case he did not reflect that his classification is based on the idea of a progressive cultural development, which leads to a certain way of classification. This classification, in return, can then not provide evidence for the existence of such a development. This is a mistake which has been repeated by many of Tyler's followers in the 19th and early 20th century (Wunn 2019). It has to be noted, though, that Tyler did not make one mistake which Jung has fallen to: he clearly separates the evolution of religion and religious ideas, including myths, from the biological evolution of man.

So, the crucial question is that of the evolving unit, i.e., what is it that evolves (see also chapter on religion). An example for this viewpoint from contemporary anthropologists of religion:

> "Oral myths often exist in multiple versions, sometimes corresponding to different interests of different narrators (for example, different groups laying claim to the same land). Myths may also change to account for new circumstances or events. Gregory Bateson gave an example from Bali of the development of a new myth that blended several previous stories. The new myth linked certain gods as siblings in order to provide a regional basis for different sociopolitical groups coming together." (Stein & Stein, 2008, p. 38)

The authors also provide an example taken from Polynesia, where a new element, that was brought with the colonizers from Europe – metal – was included into a pre-existing myth, providing evidence for the fact that even in traditional societies mythologies can change according to changes in the environment (Stein & Stein 2008, p. 38).

So, Jung, as has been pointed out above, did not only fall to the epistemological mistake of Tyler, but even to further mistakes. Jung himself did not systematically investigate mythologies, as was already demonstrated with the example of Jung's classic "Symbols of transformation" (CW 5), in which he draws parallels between the psychopathological development of a female patient, based on her notebooks, and mythological motifs, in this case mainly the myth of the hero's journey. The unsystematic way of his researching in this work has been strongly criticized by a number of scholars. Homans (1979, p. 66) clearly demonstrates that in this text Jung has produced a report of his own fantasies rather than a systematic interpretation of myths and symbols.

Jung himself did not provide a systematic analysis and overview of mythology as a whole and of the similarities and congruencies in the mythologies and mythological motifs from different parts of the world. This was left to his follower Erich Neumann (1949), who, in his seminal work "Ursprungsgeschichte des Bewusstseins" (The origins and history of consciousness), first put together an overview of mythologies of the world and interpreted them in line with Jung's psychology. Jung seemingly very much approved of this work, as can be seen in his foreword to the first publication, where he clearly states that Neumann created the work he himself did not succeed to undertake in his lifetime. The general idea in this work, in line with Jung's general thinking about archetypes, is that biologically rooted archetypes are behind the myths and mythological motifs, which therefore can be found all over the world, and importantly, that these mythological stories and images reflect the phylogenetic as well as the ontogenetic development of the human mind and consciousness. The general development goes from a primal unconscious, which is equated with the great mother or the female sublime, out of which consciousness slowly emerges, which is mainly pictured by the journey of the hero. The whole interpretation is intriguing, and this work has gained major importance in analytical psychology and has also received respect from scholars outside of analytical psychology. Nevertheless, there is also massive criticism, which is summarized by Bischof (1996).

Bischof accuses Neumann of being only a little more systematic than Jung in his analysis, but what is even more problematic, he provides evidence that Neumann intentionally left out material which did not fit into his scheme of interpretation. More fundamentally, he criticizes that Neumann - and also Jung - are epistemologically naïve (p. 193-196). In Neumann's interpretation, there is the unreflected claim that myth owns transcendental objectivity. The next major problem is that Neumann – with Jung - assumes that the cosmogonies described in mythology which explain the origin of the world and its development reflect the historical development of human consciousness from prehistoric times, and parallel, the individual development of consciousness in human development from childhood to adulthood. This, of course, follows the well-known pattern of equating phylogeny with ontogeny. Bischof argues that this is not only epistemologically naïve, but it has also been, for a long time, empirically refuted in ethnological research. He points out that Neumann's basic interpretation schemas are heavily influenced by Bachofen's (1861) romantic philosophy which assumes a prehistoric matriarchy which has been destroyed by patriarchal societies. Bischof plainly condemns this as nonsense – like the mainstream of contemporary anthropology (see chapter "Prehistory"). He accuses Neumann of producing fantasies more than solid research. If Neumann had referred to solid research and the state-of-the-art in anthropology and comparative mythology, he would have realized that there is absolutely no evidence which could justify such interpretations. Bischof himself then undertakes a comprehensive interpretation of the world's mythologies as reflecting individual psychological development, which actually has some parallels to Jung's and Neumann's thoughts, but is much more systematically grounded in anthropological research.

Nevertheless: universal motifs

It was already pointed out above, in the section about the grand theories of the 19th and early 20th century, that theories from that time attempted to find the origin of all myths, an approach which contemporary anthropology has discarded. Nevertheless, it has to be noted that there are striking similarities in the story plots of myths coming from very different parts of the world. For example, in myths of origin a common element is the birth metaphor, in the case of a female creating power this is often pictured as a spontaneous and independent birth, whereas in male creators the birth is more symbolic, e.g., the god vomits or sacrifices parts of his own body. Contemporary accounts of such similarities usually refer to the process of diffusion, and it can actually be demonstrated that certain culture areas shared narrative elements in common. An example is the idea of the primordial egg as an element in creation stories in Asia. In contrast to this motif, common throughout North America is the motif of the emergence, in which the earth slowly develops through layers of dark, chaos, etc. (Witzel 2012, Stein & Stein 2008).
Another widespread motif are myths about a primordial flood; this is often explained in contemporary anthropology as a result of the real experience of floods.

At the end of the last ice age, approximately 12,000 years ago, the water that was enclosed in the massive glaciers melted very quickly. As a consequence, sea levels changed considerably in comparably short time. It has to be noted that during the so-called last glacial maximum (LGM) the sea level is believed to have been 100 to 150 m lower than today. Geologists found out from sediments in Alaska that 11,000 years ago in a period of only 400 years the sea level rose for 18 m – which also sheds a new light on the consequences of today's climate change. So, anthropologists assume today that the human groups living in that time were affected massively through these changes, especially because they were so-called beachcombers – usually humans in that time lived close to the seashore since it was easy there to gather high protein nutrition (e.g. crabs, seashells etc.) (Diamond 1997, Witzel 2012, Buss 2015). It is very likely that in some regions with flat shores the coastline changed massively over just one generation. It is also known today that some regions, which were cut off from the oceans during the Ice Age, from a certain point on were suddenly flooded by the rising ocean level; this is well established for the Black Sea, where suddenly the Mediterranean flooded the Dardanelles and the lower area behind, which is today the Black Sea. The same applies to the Persian Gulf. So, as a consequence, myths about flooding could actually have a historical experience in the background.

A seemingly universal pattern, which is also described in Jung, is the motif of the trickster god, which can be found in stories from all over the world, and this figure also has common attributes, e.g., it is often part human, part animal. It also has a dark as well as a positive side, so it is described as adventurous, searching for sexual pleasures, lazy and easily bored, dishonest, and impulsive, but at the same time it is responsible for bringing important elements into the world, such as fire or other tools that are important for human beings. The method of this figure to obtain its goals is deceitful, nevertheless the outcome can be of benefit to the world. In that sense tricksters are also transformers (Stein & Stein 2008).

The theory of common origin (Witzel 2012)

Harvard anthropologist Michael Witzel (2012) has presented a detailed and thorough investigation not only of the world's mythologies and their similarities but also of their origins based on the above-mentioned insights about the spread of Homo sapiens from Africa all over the world. In contrast to Jung, who only claims to have systematically investigated similarities in mythology, Witzel provides a highly detailed account of similar patterns in the world's mythologies. This approach is different in so far as it does not repeat either diffusionism nor isolationism theories but assumes that the similarities have common origins (and is therefore, in contrast to the above-mentioned diffusion theory, called theory of common origin), which can be traced back, step-by-step, in the sense of establishing a cladistic or family tree of a host of mythological tales. It is also different in so far as it does not look at isolated motifs but focuses on narratological structure and a common shared narrative scheme. The mythologies from the different parts of the world do not only share similar contents in the form of motifs, but they are also arranged in the same or at least in a very similar fashion. So, the main focus here is that of a common storyline of whole systems of myths and their comparability. This allows for the comparison of whole systems or collections of myths belonging to individual populations.

> "Worldwide similarities between individual myths are habitually explained by diffusion or by common human psychic traits (see Jungian archetypes). However, the current proposal supersedes these approaches as it involves a whole system of myths, notably one characterized by a narrative structure (storyline) from the creation of the world to its end. This mythology has been spread not by diffusion but above all by the constant advance of humans: after their exodus out of Africa into northern Eurasia and beyond after the past two ice ages, respectively (circa 52,000 to 45,000 BCE and 10,000 BCE)." (Witzel 2012, p. 35)

This approach is first and foremost descriptive and comparative, it assembles the similarities not only in motifs but attempts to establishing a storyline and the fundamental structure of the mythologies involved. This approach is, on the other hand, historical, as humans and their myths have evolved over many tens of thousands of years. This is a very clear pledge for a viewpoint which denies an autochthonous and isolated appearance of similar motifs in different places again and again, based on a biological foundation, but sees similarities in mythologies as a consequence of cultural developments, physical contact, cultural exchange and migration not only of peoples but also of ideas.

This argumentation follows the above-mentioned theory of the migration of anatomically modern humans, Homo sapiens, out of Africa and all over the world. As has been demonstrated above, this spread of Homo sapiens over the world followed specific routes, which can be marked geographically and also in terms of time. For the theory presented here it is crucial to understand that on the way of this spread of modern humans over the world these early human groups reached Australia, Melanesia, Tasmania already 40,000 years ago. Also, the earliest immigrants into the Americas reached the southern parts of South America by about 20,000 years ago. These immigrations were possible because of the land bridges that were formed during the last ice age, the so-called last glacial maximum, which allowed traveling (mostly) overland into Australia, Papua New Guinea, Tasmania and other islands belonging to Melanesia, as well as over the Bering Strait land bridge from Asia into North

America. After the end of the last glacial maximum these land bridges were lost, therefore these territories were cut off from Eurasia and the developments in the mythologies that occurred here. The same applies to sub-Saharan Africa, which was also in general cut off from the northeast of Africa, the origin of Homo sapiens, and the developments that took place in the territories north of the Sahara desert. Witzel points out that these territories, sub-Saharan Africa, Australia, Tasmania, Melanesia, Papua New Guinea, as well as the largest part of South America, have significantly different mythologies from the peoples in territories that belong to Eurasia, including the islands of Japan, Polynesia, Micronesia, Hawaii and the Easter Islands, which were inhabited later. The same applies more or less to North and Central America, since the immigration of populations (e.g., Inuit, Na Dene) across the ice into North America and way into the South was possible even after the loss of the Bering Strait land bridge.

> "In sum, archaeology, linguistics, population genetics, and studies of paleoclimate all present scenarios overlapping with a very similar to that assumed by comparative historical mythology." (p. 277)

Witzel differentiates three major systems of mythologies:

1. There is the oldest, in some way original, form of mythologies in the state it was when Homo sapiens left Africa around 60,000 years ago and started to migrate along the southern coastline of Eurasia towards the east, to South Asia, and also into Europe. This original form of course needs to be reconstructed, which he admits is also debatable, as since then it has undergone major changes in the different parts of the world. This system of mythologies is called by Witzel **Pan-Gaean** (the term that is used in geology to describe the prehistoric single continent which then split into parts).
2. On the way Homo sapiens took out of Africa into the world, this original Pan-Gaean system of mythology migrated over the land bridges into Melanesia, Papua New Guinea, Australia, Tasmania on the one hand, over the Bering Strait land bridge into the Americas, and also from the center of origin of Homo sapiens in East Africa into sub-Saharan Africa. As regards America, it could be demonstrated that when the first groups of Homo sapiens arrived in North America, it took only 1000 years until they arrived at the southern tip of South America, in Tierra del Fuego. Witzel assumes that in these parts of the world, which were cut off from the Eurasian continent/mainland, the oldest forms of mythologies have survived or have at least developed differently from those systems in Eurasia. This is very clear for Melanesia, Australia, Papua New Guinea, and Tasmania since the connection to South Asia was cut off at least 20,000 years ago. In a certain sense it also applies to sub-Saharan Africa and South America, even though some influence from northern developments can be found in these mythologies. So, we would expect to find the oldest forms of mythology especially in Australia and Papua New Guinea. This system of mythology is called by Witzel **Gondwana**, it could also be called southern mythologies since they appear – more or less – only south of the equator. An interesting finding is that these older Gondwana mythologies have also survived in remote territories which actually belong to the below mentioned northern or Laurasian system of mythologies which are more developed, at least in terms of storylines. These remote territories/peoples can be found among the tribal peoples of the South Indian Nilgiris, in Malaya, and in the

Philippines, in Highland Taiwan, in Sakhalin/Hokkaido, in the Pamir mountains, Caucasus, and Pyrenees (Basque). This provides further evidence for the theory presented here, since the respective peoples/tribes lived in very remote areas which were probably cut off from the usual migration routes and further developments in their surrounding territories, and they can also be differentiated from the surrounding cultures by linguistic and genetic features.

3. The most developed system of mythologies has developed on the Eurasian continent, presumably in greater Southwest Asia, and spread from there into Europe as well as into the South and far east of Asia. Since the Bering Strait land bridge disappeared only around 11,000 years ago it is also assumed that some elements of this Eurasian system of mythology migrated into the north of America (especially through the last wave of immigrants from Asia, the Na Dene family of tribes/languages, Athabascans, Navaho, and Apache) and can therefore be found in North American Amerindian mythologies, partly also in Central America. It is also found throughout the islands in the Pacific, as it is well-established that the Polynesians moved out of their homeland, which was influenced by these northern mythologies, already by 1200/1000 BCE and spread from there over the whole Pacific, up to New Zealand, Easter Island, and Hawaii. This system of mythologies could be called northern, as it can mainly be found in parts of the world north of the equator, especially in Europe, Asia and North America. It is called by Witzel **Lauresian** mythology.

What is very important: the differences described here between the respective systems of mythologies are paralleled in detail by the findings described above about the routes of migration of early Homo sapiens and the development of its inhabitation of the different parts of the world. The differences in mythologies are totally parallel to differences in linguistics, genetics, and are also backed by archaeological findings. In so far this approach to the explanation of similarities and differences in mythologies is very well empirically established (see map in the attachments).

Another important consequence derived from these analyses is that already around 60,000 BCE, when Homo sapiens began to spread over the world, these migrating groups seem to have had first elements of mythologies, cosmogonies and eventually also religious ideas; this is further supported by the insight from genetic analyses, that these humans at least anatomically had the capacity for a complex language (see above).

Laurasian or Northern mythologies

These mythologies include those of the populations speaking Altaic, Japanese, Uralic, Afro-Asiatic, Indo-European, Tibeto-Burmese, and Austric (South Asian, Southeast Asian, and Polynesian). They are also the basis for the old written mythologies of Egypt, the Levant, Mesopotamia, India, and China. It also strongly influenced the Inuit and American Indian mythologies including Athabascan, Navajo/Apache, Pueblo, Algonkian, Aztec, Maya, Inca, etc. These mythologies have a very clear narrational structure which differs clearly from the older, above-mentioned southern or Gondwana mythologies: this narrational scheme encompasses the ultimate origins of the world, subsequent generations of the gods, an age of semi-divine

heroes, the emergence of humans, and later on in time, even the origins of noble lineages. Very importantly, it also includes a violent end to the present world, sometimes with the hope for a new world emerging out of the ashes. The universe is often seen in comparison to the life of humans, as a living body, which is born (sometimes from primordial incest), grows, develops, comes of age, and has to undergo final decay and death.

This structure distinguishes the northern mythologies clearly from those of the southern part of the world (Gondwana), especially in the narrative structure which in the latter has no pattern of a development of the universe, sometimes not even of the creation, and definitely there is no end to the universe. In these mythologies the world is regarded as eternal, any account of an end of the world is missing.

In this sense, Witzel argues, the northern mythologies are the most developed since they form something that could be called a novel, whereas in southern mythologies such a clear line of development is missing, they are more a collection of motifs and isolated stories.

In this context, Witzel also deals with Jung's ideas and clearly criticizes them:

> "If Jung's analysis were correct, the archetypes would constitute, taken together, a brief history of the human mind, not unlike the many seemingly prehuman (amphibious etc.) stages that an embryo seems to go through in its development. However, by now, all anatomically modern humans alike share a history of at least some 130,000 years. This includes the original creation of myth, though admittedly, we know very little of the development of the human mind for most of that period. If, for arguments sake, the origin of myths and its motifs originally recited in the dreams and beliefs of the "African Eve" [our earliest, archeologically and genetically established common ancestor; CR] and her "Adam", these primitive motives would have been transmitted by humans ever since and would now be part of our collective subconscious. As such, they would spontaneously come up constantly and would thus be universal, since we all have, more or less, the same (Stone Age) history of mind. However, some archetypes are neither evenly nor generally distributed all over the world, such as the assumed worship of the generative power of a universal mother. Nor does an archetype lead to a full-fledged myth and even less so to a well structured mythology, and certainly not to one with a storyline, such as the Laurasian one." (Witzel 2012, p. 24)

It also has to be noted that, since the described Northern system of mythologies is at least 20,000 years old, it cannot be said that prehistoric, Palaeolithic societies have primitive religious systems, since the systems described here include very complex worldviews which incorporate both nature and society.

An initial collection and comparison of similarities in mythological motifs allows for the following list:

1. the origin of the universe and our world
2. the several generations of deities
3. the creation of light
4. the killing of the dragon or of a similar monster
5. the emergence of humans, along with their faults
6. the involvement of the gods in human affairs
7. a great flood and the re-emergence of humans
8. an age of semidivine heroes, often overlapping with
9. the origins of local tribes and the later noble lineages and, as such, of local human history
10. a violent end to our present world (Witzel 2012, p. 53)

Now, in the northern system of mythologies these elements are put into a coherent story line:

> "There is a first beginning, followed by a logical progression of most of the events listed above. For example, one cannot expect the flood to take place before humans have behaved in a way not pleasing to the gods, whether this occurs in Hawaii, in Vedic India, or in the Hebrew Bible. And the killing of the dragon clearly must take place after the emergence of the first sexually distinguished deities (usually, heaven and earth), simply because the dragon is one of their descendants. Frequently, but not universally so, this historical progression comes to a predictable end, with the destruction of our current world. In other words, the initial collection and subsequent linear arrangement of motifs result in a history of the world, the gods, humans, and individual bands, tribes, or peoples. The underlying historical framework entails that mythology is characterized by an inherent narrational scheme that recalls, in succession, all events from the creation to the end of the world. In other words, the scheme has a recognizable pattern, it follows a red thread, it has a distinct storyline. … In sum, this mythology, reconstructed along these lines, represents our oldest complex story. It is a novel of the creation, growth, and destruction of the world, of divine and human evolution and decay, from birth to death, from creation to destruction. It is this particular narrational device that unifies the many individual motifs and presents listeners with a comprehensive and intelligible view of the world, an ancient Weltanschauung." (p.54)

So, the major mythemes in Laurasian mythology include:

1. primordial waters/chaos/nonbeing
2. primordial egg/giant
3. primordial hill or island
4. father heaven/mother earth and their children (four or five generations/ages)
5. heaven is pushed up (and origin of Milky Way)
6. the hidden sunlight revealed
7. current gods defeat or kill their predecessors
8. killing the dragon and use of heavenly drink, fertilization of the earth
9. Sun deity is the father of humans or just of chieftains
10. first humans and first evil deeds (often, still by a demigod), origin of death/the flood
11. heroes and nymphs
12. bringing of culture: fire/food/culture by a culture hero, rituals, spread of humans/emergence of local nobility/local history begins
13. final destruction of humans, the world and the gods/variants of the four ages theme
14. (a new heaven and a new earth)

(Witzel 2012, p. 64)

These elements are arranged in the following storyline:

1. creation from nothing, chaos, etc. father heaven/mother earth created
2. father heaven engenders: two generations (e.g. Titans/Olympians)
3. four (five) generations/ages: heaven pushed up, sun released
4. current gods defeat/kill predecessors: killing the dragon, use of sacred drink
5. humans: somatic descendents of sun god, they (or a god) show hubris and are punished by a flood
6. trickster deities bring culture, humans spread, emergence of nobles
7. local history begins
8. final destruction of the world
9. new heaven and earth emerge

(Witzel 2012, p. 183)

The occurrence of this structure in all of the above-mentioned parts of the northern mythology system is illustrated by Witzel with a number of detailed examples, including the occurrence of the motive of the marriage of sun and moon in mythologies from Finland, India/Iran, Korea, Japan, and Guatemala (kekchi), and the myth of the hidden sun, which can be found in Europe, West and East Asia and in the Americas.
In contrast to this limited spread of motifs belonging to the northern system, the motif of a great flood is a truly universal pattern found all over the world (see below).
More evidence for this distribution of mythological systems is the occurrence of the word for dog, Indo-European kuon (Witzel 2012, p. 265-66). It is found in many languages of the world, but, interestingly, only in those which belong to the here mentioned northern or Laurasian mythology systems. This has to do with the fact that dogs were domesticated only around 15,000 BCE. Therefore, they did not reach societies as in Australia, which was by then cut off from the Eurasian mainland. Even though the dingo dog seems to have been introduced into Australia by maritime contacts from India around 3,000 years ago, it did not become domesticated with Australian aborigines. The same applies to sub-Saharan Africa. In the northern mythologies, in contrast, the dog appears as a mythical figure and symbol, e.g., as the guardian of the underworld or the gates of hell. This apparently has practical reasons, because dogs were used as guardians and for hunting, and were able to detect wounded gain or that which just had been killed by the weapons, therefore the connection to death.

The same applies to the motif of horses, which are common in Eurasian mythologies (belonging to the northern system) in the form of sun horses/horses drawing the chariot of the sun, e.g. prominent in Greek and early Indian myth. Horses were domesticated around the fourth millennium BCE in Europe and the near East and used for vehicles even later. The seminomadic central Asian tribes and the near Eastern peoples added the horse to their mythology, and some American Indians of the prairies did so much later, in the latter half of the second millennium, as soon as they were confronted with domesticated horses that were left by the Spanish invaders.
In contrast to that, there is a relative absence of chicken and pigs in Eurasian mythology, which speaks for the fact that these systems arose in West Asia, whereas chicken and pigs are both animals clearly domesticated first in southeast Asia, where they can be found as motifs in mythologies.

Southern or Gondwana mythologies

These mythologies can be found in sub-Saharan Africa, the Andamans, New Guinea and Australia/Tasmania as well as greater Melanesia. It can be demonstrated that the Andamans were settled early, and archaeology and genetic evidence have recently shown that the Andamanese belong to some of the early immigrants from Africa. They can also be found in so-called remnant populations, which seem to have persisted in remote areas, such as the San bushman, the pygmies, the Semang of Malaysia or some population in the highlands of southern India (Toda) and Taiwan. The Gondwana mythologies seem to have existed already

at 40,000 BCE, and thus have migrated with Homo sapiens into Australia, Papua New Guinea and southern Africa, whereas the above-mentioned Laurasian mythologies seem to have developed not before 20,000 BCE, which could not have reached the territories mentioned here.

The most striking difference of Gondwana mythologies in comparison to the above-mentioned northern mythologies is the absence of a coherent story line. These mythologies do not tell of the creation of the world but only of that of the surroundings and of humans. Most notably, they do not know an end of the world. The interest of Gondwana mythologies clearly lies with the origins of humans. The first man and woman are sometimes created by the high god, however, in many other cases they simply emerged from trees: a split tree, a tree stump, or a bamboo. Even where this is not clearly stated, e.g., in Australia it is symbolized in ritual where the tree plays a great role in initiation and burial. These mythologies also know an ultimate high god, which is an otiose god, far removed and not so much interested in human affairs, apart from creating descendants such as a trickster or a totem deity. Typically, there is no creation, the earth already exists. There is an otiose high god who moves to heaven, from where he sends down his son or other beings to create humans. These show hubris and are therefore punished by a flood. Trickster deities bring culture to them. There is no final destruction of the world.

So, the major stages and motifs in Gondwana cosmogony include

1. in the beginning: heaven and earth (and the sea) already exist
2. a high god lives in heaven, or on earth, or ascends to heaven later
3. series of lower gods, often children of high god, act as tricksters and culture heroes
4. primordial period ended by some evil deed of son of high god or by humans
5. humans are created from trees and clay (or rock); occasionally, descend directly from the god/totem ancestors
6. humans act haltingly or make a mistake; punishment by a great flood; humans re-emerge in various ways
7. an end to the world is missing

Gondwana traditions share the motif of a primordial misdeed or hubris of the early humans, usually a broken food taboo, which leads to the emergence of death. This mistake in many instances is punished by a great flood. In some cases, guilt is put on a woman because of her curiosity, e.g., she wanted to find out about a secret of the gods. However, in most traditions the guilt is of a more general nature, due to the violation of certain taboos or because of general hubris of humans.

All of these elements, of course, occur also in Laurasian or Northern mythologies, but here they are put into a continuous and coherent story line, which draws a line from the creation of the earth to its end, in the sense of causal connections.

Northern or Laurasian myth seeks to explain the origins of things, gods, and humans as a means to understand them fully. In contrast to this, the ultimate questions on first origins are

not asked in the Gondwana myths, they are, at best, interested in the origins of one's land or of humans and their condition.
In the north, there is enormous emphasis given on the power of the word, e.g., as it is used in magic and ritual. One can establish verbal and material equivalences and correlations between all entities and use them in magic and sorcery (e.g., in the Gospel: In the beginning there was the word). In contrast, in Gondwana mythologies there is no distinction among word, thought, discourse, and action. The word is enduring, a solid reality. In sorcery and magic, there is no emphasis on words, but on objects, e.g., ones used as fetishes. In Laurasian myth there is the insistence on the word of origins, on the secret or sacred tales of origins, whereas in Gondwana there is emphasis on remembering the first ancestors in ritual, e.g., the Australian dreamtime.

Pan-Gaean myths – the truly universal motifs

From a Jungian point of view, and also for the discussion of archetype theory, it is most interesting what the truly original and therefore universal myths of humankind are, which Witzel summarizes under the term Pan-Gaean. The idea is that these myths have already existed, at least in rudimentary form, at the point in time 65,000 years ago when the first Homo sapiens groups left Africa and spread over the world. As has been pointed out above, they have survived in the Gondwana systems of mythology, although it can certainly not be said that these mythologies, now very ancient, are in the same state as they were when the first humans left Africa. Also, these older, southern mythologies, of course, have undergone certain developments over time and adapted to the environments and conditions of the peoples and societies in which they were transmitted. Nevertheless, Witzel argues that it is possible to reconstruct some of these oldest mythemes. One of them is the myth of a flood, which is apparently truly universal, and is part in Gondwana myths as well as in Laurasia mythology.

The flood myth: In both mythological systems described above

> "The flood myth has the distinct aspect of retribution or revenge, regardless of details: it does not matter whether the flood emerges from heaven, from the ocean, or just from a calabash. In most Gondwana myths, the flood is retribution for or the result of a mistake. It frequently originates from rain or from the rain spell. Some divine creature is involved, either the rainbow snake (only in Australia) or a deity of heaven or of the mountains. … In sum, both the Laurasian and the Gondwana flood myths share the topic of retribution by a divine or human being. It often is caused by some sort of mistake made by one or more early humans and is executed by excessive rain. Some people escape by float or boat, usually to one or more high mountains. In some cases, a new race of humans develops from the saved primordial people." (Witzel 2012, 348-355)

So the truly universal motifs in this myth include: a general flood which covers all except a mountain; the flood is a retribution by God/spirits, which leads to the destruction of humans, except of a few which can escape by boat; the flood comes from a vessel or a heavenly water store; the flood can also be caused by someone's wounds or sores. These elements can appear in Gondwana as well as in Laurasian flood myths and are therefore indeed pan- human.

Trickster: Another truly pan- human motive is the ubiquitous trickster figure that brings human culture, e.g., Prometheus as the thief of fire etc., as well as the motif of the origin of humans from trees or clay. The interesting point is that some of these old motives can be found in later Laurasian mythologies, where they can clearly be identified as they simply do not fit into the common storyline, they appear as elements somehow strange and alien to the rest of the story, which identifies them as very old remnants of earlier mythological systems. They stand out as archaisms that can easily be isolated.

Witzel provides a list of other pan- human, universal mythological motifs:
High God: there is a (male) high god, but he is often a deus otiosus, moved far away from humans and retreated into heaven, he is little occupied with humans and also hardly venerated. He is not very active, certainly not a creator god, but leaves the creation of humans to other demiurges. In Laurasian mythology this high god has been transformed into heaven or father heaven.
Creation: Interestingly, there is no idea of the creation of the earth or the universe, the only question that is of interest is how the earth can be shaped properly so as to make human life possible. Later Laurasian myth, in contrast, is strongly interested in understanding the origin of everything, the universe etc. A very old remnant, which could be called pan-human is the motif of the primordial giant made of stone and the accompanying worship of large stones, rocks, and stone pillars. In these very old myths, even though there is no idea of creation, there is a clear idea of the emergence of humans out of a tree. Even if this is not clearly spelled out in a number of cultures, e.g., in Australia, there is a close link of initiation rituals with trees, and also burials take place in hollowed out trees. Another very old motive for the origin or emergence of humans is the idea of a reservoir of souls, in the sense of a well of souls. For example, in Australia, the souls of unborn children are believed to come from certain totem welds, and the motif still exists in current Germanic belief about babies coming from the big pond, from where they are brought by a stork. This motif is not found in the official Laurasian mythologies but appears in folktales and legends.

In all the mythological systems described here, humans are described as being by nature full of hubris, and that their arrogance usually leads to the origin of death due to some mistake or misdeed, often committed by a woman. This seems to be a very old idea. At least the idea of the emergence of death is seemingly another important Pan-Gaean or pan-human motif. The linking of life-giving women with death is widespread, as can be seen in the traditional role of midwives being responsible for birth as well as for the care of the dead. In sum, this old motif could be characterized as the search for the origin of death and who to blame for it. The experience of death is fundamental as well as the wish to overcome death in one way or another.
As already mentioned above, the figure of a trickster as a demiurge also seems to belong to the oldest motifs as it can be found in all systems of mythology. These culture heroes or tricksters receive a different role in the later Laurasian and mythologies, as they are not the sons of heaven as in the older myths, but belong to a later generation, that of the

grandchildren of heaven. This is due to the need to find the reasonable place for them in the Laurasian mythological storyline.

In the history of comparative mythology, there have been several proposals for lists of universal myths, e.g., by van Binsbergen (2005), who identifies 20 universal motifs from various time periods, as well as the Russian anthropologist Berezkin (2005), who has pointed out ancient links among African, Australian, and South American myths. Witzel criticizes these approaches insofar as they only focus on isolated motifs instead, as he does, on overarching and continuous storylines. He argues that individual motifs could have travelled easily and therefore be diffused, whereas the coherent mythological systems in the sense of a narratological point of view appear more robust against influences. Be it as it may, Witzel can convincingly demonstrate that on the one hand there are truly universal mythological motifs or storylines, but he can also clearly demonstrate that they have been spread by migration, physical contact and cultural exchange, and are not products of a supposed universal structure of the human brain or the biological makeup of humans.

> "Even initial exploration, as detailed above, has brought out the surprising fact that quite a number of individual motifs and myths occur across all of the four major mythology types: sub-Saharan African, Laurasia, Papuan, and Australian. While this might speak for the Jung/Thompson proposals, these facts receive a new interpretation in light of the Laurasian theory. As indicated, Laurasian myth is characterized by a coherent story line, and so are some of the Afro-Australian ones, if only to a very small, incipient degree. In all of the latter, the initial sections (creation, origin of the gods, the four ages) and the end of the world are missing. More importantly, what is significant about the few newly emerging, truly universal motifs is not just their worldwide spread; rather, it is the fact that these universals also occur but are isolated in Laurasian myth. They often go against its grain and are superfluous variants of topics treated comprehensively and systematically in Laurasian myth. As mentioned earlier, frequently these variants are not part of the official local storyline but occur as isolated myths, generally in the form of folktales or *märchen*. ... They allow us a first glimpse of the mind of early humans and of the human condition as experienced by our most distant ancestors, after they moved out of Africa around 65,000 BCE and before that, perhaps as far back as 160,000 to 130,000 BCE, the time of the African Eve." (Witzel 2012, p. 371-72)

> "It is here that truly human universals emerge, as imagined and postulated by Jung and his followers." (Witzel, 2012, 357)

With the crucial difference that Witzel makes, in so far as he clearly denies human biology/brain structure/genetics as the source and origin of these panhuman myths, but he clearly demonstrates that they have spread from the origin of Homo sapiens in Northeast Africa by ways of migration, physical contact and cultural exchange.

Conclusion

Again, as in the fields of anthropology and religion, it can be summarized that the universal patterns or motifs that Jung had in mind do actually not exist, at least not in the shape he imagined them. There are actually motifs that Jung claimed to be universal, which, in fact, are not, namely that of a powerful mother goddess, the slaying of a dragon or the idea of rebirth. Where there are universal motifs, e.g. the trickster or the motif of a flood, their universality can well be explained by migration and cultural exchange. The overall model presented here,

on the background of the Out-of-Africa theory and the spread of Homo sapiens over the world, can explain in detail the similarities as well as the regional and cultural differences in mythology on the background of the routes of migration. Again, it has to be clearly stated that Jung's isolationism position has been refuted. The powerful findings presented above are accomplished when a human sciences approach is applied to cultural phenomena such as mythologies, narrative patterns or cosmogonies. It also has to be noted that in the comparative research on mythologies of the last decades, in contrast to Jung and analytical psychology, the myth of the hero's journey plays virtually no role; this is not to say that such a story pattern does not exist, but there is a strong contrast between the importance it has gained in analytical psychology in comparison to the research focus of comparative mythology. From the perspective of comparative mythology, it seems that this mythological motif does not have such a central role in the mythological storylines and cosmogonies of the peoples of the world. It is possible that Jung, again, has fallen into the trap of ethnocentricity, that is a European point of view, which on the background of the development of individualism in the Western world beginning already in Greek antiquity and heightened since the Renaissance, this story pattern has gained enormous importance as a metaphor for explaining psychological individuality – and it may only have a minor role in all of the other societies and cultures, namely indigenous societies, in the world. This has far-reaching consequences for the whole model of classic archetype theory, since the whole concept of psychological development is based on the idea that consciousness develops out of the unconscious, and this is pictured in the mythologies and images of the so-called great mother and the path of the hero – which are definitely not universal motifs or story patterns. So, the universal applicability of the whole model is thus in question. Again, the problem is that Jung had his preformed fantasy of archetype theory and made use only of those myths and motifs which fitted into his concept – instead of systematically and open-mindedly investigate the mythological motifs which actually exist in the world. Again, it can be demonstrated that Jung's pre-conceptualized innatism made him blind for the actual diversity to be found in the mythologies of the world.

Another far-reaching consequence is the following: the practice of Jungian psychotherapy is based on the above-mentioned model and the idea of autochthonous development of these – supposed to be healing – motifs out of the individual psyche. Now, if the research presented here clearly speaks for the fact that the existence of mythological motifs is a consequence of cultural transferral, not only on a historical level, but also on the individual level (usually from mother to child, see chapter on religion), then Jungian psychotherapists cannot count on the pre-existence of these motifs in every one of their clients. If a specific client has never been told about the stories, or has incorporated them in other ways, also on subliminal pathways, then the whole approach may seem misleading to wait for the emergence of such motifs and ideas in the course of therapy.

Nevertheless, there are not only universal motifs, but also universal cosmogonic storylines, as Witzel has pointed out. Even if there are striking differences between what he calls Laurasian versus Gondwana mythologies, there is still a surprising continuity in these super-narratives. Although they most probably have been diffused via migration and cultural exchange, the most interesting question still remains: how could these storylines and their contents survive

for literally tens of thousands of years? I will attempt to provide an answer in the following final chapter.

10 Conclusion: The core theory - a theory of psychological transformation

The starting point of this discussion of archetype theory was the insight that still today there is no standard definition for archetypes, there is still confusion, with definitions presented which are completely incompatible and lead to unresolved questions concerning the core concept of analytical psychology – but it seems as if large parts of the community are not even interested (Mills 2018). Therefore, it is not clear what anybody is referring to when making use of the term archetype, even in contemporary publications. It was also pointed out that the confusion begins with Jung. The heart of the problem is that Jung put forward a theory – and tried to defend it against any form of, even justified, criticism - which basically goes like this: archetypes are embedded in the biological makeup of humans, like instincts/patterns of behavior in animals, they have formed in the prehistory of mankind, and because they are biologically rooted they appear 'autochthonously', without any influence through culture and socialization, in every human being, at least potentially; these biologically rooted archetypes are therefore responsible for similarities and convergences in the fields of religion, cultural patterns and social practices; they are finally responsible for the psychological development of the individual. In this theory, Jung attempted to bind together all the four theories that were described in chapter 3, and all the fields of expertise which were investigated, namely biology, anthropology, religion, prehistory, mythology, into one unified explanatory concept for the development of mankind, its cultures and religions as well as for the individual psyche, which – as was demonstrated – is impossible; this theory of Jung's must be characterized as being a grandiose fantasy. It seems to me that this unifying approach is so fascinating that it is still highly attractive to many people, inside as well as outside of the Jungian community, so that there is a strong tendency to cling to this belief system.

It seems that Jung was fixated to this theory, in the face of critique or even contradictions that were pointed out already in his lifetime. As I have pointed out, the state-of-the-art in anthropology, religious studies, archaeology and paleoanthropology clearly demonstrates that the assumed similarities or primary forms, e.g., of religion, do not exist. Where there are parallels, e.g. in what anthropology has characterized as universals as well as in the field of comparative mythology, these can well be explained by migration, physical contact, cultural exchange, the interplay between regional environmental conditions and the dynamics inherent in culture and society itself. Jung was blind to such viewpoints, because he was convinced that archetype theory was a biological theory and as such part of the natural sciences, which in his eyes was the only possibility to make this theory a truly scientific theory and defend it against critique. Ironically, this very approach has made archetype theory questionable, even unscientific, and has put it under massive critique.

What is irritating is the fact that the criticisms that I have summarized in this paper have been put forward, at least partly, already in Jung's lifetime, and later in the scholarly debate in analytical psychology again and again, with seemingly very little effect. In the survey conducted as part of this study viewpoints have been presented which still continue what could be called naïve innatism. At least as irritating is the realization that the insights which have developed in the relevant disciplines, namely anthropology, religious studies, comparative mythology etc. have virtually played no role in the debate in analytical psychology. It has to be noted that Jung's far-reaching nomothetic statements about the

universality of the so-called great mother, and the hero myth connected with it, being images for the development of consciousness out of the unconscious, are not just some ideas in archetype theory, they are in fact at the center of the architecture of the whole theory. This is an aspect which again has been rarely discussed in analytical psychology, that the debate is not only about the existence or nonexistence of certain archetypes, but that Jung's ideas form a coherent explanatory system which links all the aspects discussed here: assumptions about the distribution and universality of certain aspects of cultural life, of religious ideas, of social patterns as well as individual psychological processes and behaviors being rooted in the biology of humans and thus creating specific psychological processes, e.g. in the context of psychotherapy. All of these aspects play a role in the construction of the whole of the theory, they build a coherent architecture. In the face of the evidence speaking clearly against a universal distribution of these ideas and images, namely that of the so-called great mother and the hero, practically the architecture of the whole of Jung's archetype theory has collapsed. Again, it seems, nobody has noticed. Although archetype theory, not only in the shape which Jung presented but also in present day form (see for example the teaching at the institutes, introductory texts presented on the website of the IAAP etc.), makes far-reaching, even nomothetic statements about matters in the field of anthropology, religion, comparative mythology etc., it has lost contact to the development and state of scholarly knowledge in these fields or has even totally neglected it. This neglect is not only ignorance, but appears as a sort of arrogance, as if analytical psychology would not need these other disciplines and their insights, as if it were above such research often characterized as 'positivistic', as if it were in the possession of the truth. As a consequence, the foundation of the whole theoretical construct of archetype theory has evaporated and the architecture of the theory has collapsed. So, even if there were some evidences for certain aspects, or proof that some psychological features are actually genetically encoded, it would not save the whole of the theoretical construct from being refuted.

In fact, the situation is even worse: the racist and devaluing viewpoints, which were characteristic for colonial thought, are not only deeply embedded in Jung's theorizing around archetypes, but these viewpoints have also been continued in analytical psychology up to the present day with only marginal critique (Group of Jungians 2018). My impression is that the majority in the Jungian community is even not aware that large parts of the theory convey these highly problematic viewpoints further.

There is even a certain renaissance of publications which more or less uncritically continue a biological line of argumentation, for example:

> "Explanations for cross-cultural motifs historically have circled around two main possibilities: either such story structures "migrated" through cultural transmission and population movements, or the human mind simply has an innate tendency to independently invent such stories. Obviously these two explanations are not mutually exclusive. Cultural transmission, for example, does not simply happen for everything equally. Some stories/images are "stickier" than others, and this may be due to innate predispositions to repeat them. But there is an asymmetry to these explanations. That is, an innate predisposition can explain *both* migration and independent invention, but if we assume there is no innate predisposition, not only must we justify every cross-culturally appearing motif with some kind of migratory evidence, we still have to explain why such expressions were transmitted in the absence of innate predisposition. Evidence from within and outside Jungian scholarship suggests there are a number of innate predispositions specific to some motifs and not others." (Goodwyn in press)

It is interesting that this author provides as evidence for the existence of such genetically preformed processes the example of a bacteria:

> "To that end we will look at the classic didactic case of the *lac* operon of the organism E. Coli, followed by a discussion of what is really meant by the genome 'encoding' a particular process." (Goodwyn 2020a, p. 915)

I cannot see how such an example can serve as an explanation for the development of such entities in the human mind as the great mother and the myth of the hero's journey, assumed to be biologically preformed archetypes. I do not question that also in human beings there are processes which can be described by gene environment coaction (Goodwyn 2020a, 2020b). But how can these explain the coming about of complex symbolic and even narrative structures in the human mind? Contemporary conceptualizations even in human biology clearly refute what has been described as the biological conceptualization of archetypes (Theory 1). There is no doubt that in humans there are innate capacities and behavioral tendencies, but they are the opposite of what Jung imagined to be biologically rooted archetypes: all of these innate elements are not structures and contents, but only capabilities which are all directed towards creating relationship, participating in relationships and groups, initiating interaction and participating in communication, cooperation and sociality etc., in sum: they are directed towards social relationships. This is, as I have pointed out, the contrary of what Jung imagined when he claimed a biological foundation of archetypes. The archetypes Jung had in mind cannot be conceptualized as biologically or genetically founded in the face of contemporary knowledge. It also has to be noted that Jung again and again stressed the point that biology/the genes **determine** human behavior and imagination – this is very different from the pathways that authors as Goodwyn describe (Merchant 2020). This is, again, a result of the fact that there is no consensus about the definition of archetypes, so evidence for biological/genetical pathways for mental capacities in humans are used to argue that such findings provide proof for Jung's archetypes being biologically rooted – the problem is that it is not clearly defined what is archetype.

Contemporary Jungian authors still make the mistake to use such as the above-mentioned findings as 'evidence' for the biological theory of archetypes, for conceptions of innatism, biological preformationism etc., without taking into account that the archetypes of classical archetype theory – anima and animus, the wise old man, the trickster, the divine child, the journey of the hero etc. – are something totally different from the capabilities that were found to be biologically rooted. I have already argued that it is legitimate to hold on to a theory which argues that there are biologically preformed mental or psychological capacities in humans – but this is by no means evidence for the archetypes of analytical psychology being biologically rooted. Therefore, again, I would suggest not to use the term archetype anymore for biologically preformed mental propensities in humans, as this creates confusion instead of clarification.

Why, at all, is it so important to describe the archetype as a biological concept, even for contemporary theorists? It is as if the theory, when armed with dubious concepts and findings from natural sciences and highly questionable pseudo-biological argumentations, became a better theory. This would mean to continue Jung's mistake to conceptualize archetype theory as a part of the natural sciences, namely biology, in an attempt to defend the theory against

criticism, to make it a ‚real scientific theory'. We can acknowledge that today as being a defensive strategy, by which Jung attempted to be regarded as a scientist and immunize his theory against criticism. There is no need to continue such attempts to create a biological foundation for archetype theory, as it does not make it a scientific theory, in contrast, such attempts have become highly questionable and make archetype theory unscientific. From my point of view, analytical psychology for decades has been caught in useless academic debates of discussing different biological pathways in the desperate attempt to find a biological explanation for how archetypes come about. But it is not necessary – and I would argue it is even not possible – to investigate what is meant by the term archetype on the level of genes, gene environment interaction, instincts and patterns of behavior etc. We will certainly not find archetypes in the genes or on the level of biological processes.
The question is: what is the appropriate level of investigation, of observation and theory building adequate for the formulation of a theory of archetypes?

What is the adequate level of investigation?

The biological as well as genetic makeup of humans certainly plays a role in what kind of behavior patterns, social rules and cultural contexts we develop. But even if we start from what biology, and namely ethology, say about what could be called human nature, what we find is that human beings are biologically prepared not for certain natural environments, but for a life in social groups and relationships. The human capacity for building complex social relationships and large groups, even civilizations, for interaction, communication and cooperation, for trusting each other, building shared goals and follow these goals together, is what makes our species so successful and what is the outstanding characteristic of humans. As a consequence, there is no specific environment for us on this world, we can actually survive practically everywhere on this earth, in the Arctic, in high mountains, in deserts, in jungles, there are even ethnicities who live continuously on the water, and today we can even survive on the moon and in outer space. The environment we are genetically designed for, so to say, is the human group and culture we are born into, and our biologically preformed capabilities aim at making us a competent member of this group and culture. There is no symbolical content inscribed in our brains, as the neuronal growth is unspecific (see chapter Biology), but we are prepared to fully take in the contents, the rules, structures and stories of the culture we are born into.
On the other hand, there certainly are similarities in structures and patterns that have developed in a considerable number or even in all the cultures and societies in the world, e.g., in mythologies and in the field of religion. Although it could be demonstrated that these similarities have come about through cultural developments and cultural exchange, nevertheless the crucial question is: how could these patterns, ideas and structures survive over such a long time? As Goodwyn (in press) puts it: "Some stories/images are 'stickier' than others". In this case, I absolutely agree. We must consider that Witzel (2012) assumes some of these mythological motifs and storylines may have existed already when Homo sapiens left Africa, i.e., approximately 65,000 years ago, and are still part of stories told today.

I do not question that such patterns can tell us something about what is characteristic for human beings, for human societies, and they certainly have to do with the way how we psychologically function. I have already pointed out that rules and patterns which have developed in religions seem to provide, in their specific way, information which helps to lead a good or at least a better life. This applies to the field of practical everyday life as well as to the field of psychology in general. Just take the 10 Commandments: even though they may appear a bit simple and rigid from a contemporary point of view, nevertheless they had an enormous effect in structuring social life, making it more peaceful, and protecting human relationships, which, as we have seen, are so crucial for human well-being. This line of explanation of psychologically meaningful patterns could be continued with many more examples, not only from the field of religion, but also from other fields (see for example the discussion of marriage rules in the chapter on anthropology). This viewpoint will be taken up again in the section below which discusses the process theory.

I would like to put this idea into the following reformulation of archetype theory: archetypes are about what is appropriate for human beings, in the sense that it helps to lead a good life, that it is helpful in supporting growth, even potentially healing.

But I would very strongly argue that it makes no sense to search for these patterns on the level of biology, in genes, instincts and the like. It is not only that it makes no sense, but it is also not necessary. It is sufficient to investigate human habits and institutionalized rules and procedures on the level of social practices, habits and customs, religious ideas and beliefs, ritual processes, mythological stories etc. to be able to identify such truly universal patterns – it only needs an open-minded and unprejudiced approach, by which I mean an attitude which does not want to prove right everything that Jung said, whatever it may cost.

So, as a conclusion on this level, I would argue that **archetype theory is definitely not the kind of theory Jung conceptualized, but it is part of cultural psychology.** Archetypes are therefore best described as a condensed form of psychological wisdom which has developed in human social practice, and they can be investigated on the level of cultural products, social processes and religious beliefs and ideas. Nevertheless, we still have to take a close look into such patterns and whether the compressed wisdom is applicable to the whole of the human condition, or maybe just to specific social, cultural and environmental contexts – i.e., it implies to apply a cultural sciences approach as it deals with cultural products. For example: it may still be a good idea to keep milk and raw meat apart from each other, especially in hot climates (Judaism), but with modern refrigerators and electric cooking facilities this problem can be solved; it may still be a good idea to be careful with drinking alcohol, especially in hot climates (Islam), but contemporary societies may find more appropriate regulations; on the other hand, the practice to observe a fasting period at the end of the winter (Catholic) may still be a good idea as it does a lot of good on the physical as well as on a psychological level – it enables the psyche to go through a period of ‚light depression' which, in fact, can serve as a protector against psychological disturbances. The latter is an insight which we can find in a whole number of religions in the form of veneration of deities that stand for melancholia and gloom and have periods associated with their adoration in which people walk ‚in ashes' (e.g. Saturnalia). Again, it is not necessary for understanding these psychological insights to search for the genetic or other biological determinants of these processes, although they may

certainly exist, but are probably multifactorial. The WHAT of archetype theory may be more important than the HOW it comes about.

In a reformulated approach to archetype theory, we could argue that religions, mythological stories, social practices, rituals etc. encode what is good for us humans. This reflects biological basics, our 'human nature' if you like, but is not determined by them – and, as we have seen, humans are not only formed by their biology, but as well by the culture they are living in. Then archetype could be described as a pattern which creates resonance in humans, because it obviously has to do with being human. This would mean, for example, that we feel a resonance when we listen to a certain story or when we encounter certain cultural habits or participate in a religious ritual – it strikes a chord in us which we share with other humans.

But practices, beliefs, myths and images, although they may be archaic or are found in indigenous peoples, are not necessarily good or wholesome in the above sense. A striking example is provided by Paul (2015): when European researchers, relatively late, investigated the indigenous peoples in the remote highlands of Papua New Guinea, they found a tribe which held the belief that sexuality was dirty, weakened the mind and was thus below the dignity of the people. Consequently, this tribe did not practice sexuality at all, which created the problem that they had no offspring. So, as not to die out, they developed a strategy to attack their neighbors, kill or enslave the adults, steal the children and make them their own. Since they practiced these strategies for hundreds, if not thousands of years, they reached a high expertise in warfare and, feared by their neighbors, dominated the highlands. This is, by the way, striking evidence for the fact that indigenous peoples do not follow nature, and that, in contrast to assumptions made in sociobiology, the drive to spread one's own genes is not the strongest motivation in humans – in this case what is transmitted over generations is not the biological but the cultural heritage.

The process idea

As a consequence from the discussions above it can be summarized that Jung's assumptions in the fields of biology, anthropology, mythology and religion are largely to be refuted or need to be questioned thoroughly. In contrast, his idea of a universal process of psychological transformation which can provide a map for the psychotherapeutic process needs to be highly valued, even today in the contemporary field of psychotherapy theories and psychotherapy research.

As a conclusion I would like to focus in the following on what I would like to call the core theory inherent in archetype theory. It seems to me to be justified to call this the core of archetype theory based on the insight that analytical psychology is a psychology and a theoretical discipline with a practical application, i.e. psychotherapy respectively Jungian analysis. From my point of view it is an ethical requirement for an applied discipline as psychotherapy, which works with clients who hope to find relief when making use of psychotherapy, to provide a theoretical model for its psychotherapeutic practice, and additionally that this model is well grounded in contemporary insights in the relevant disciplines. Through the differentiation of the lines of thought inherent in Jung's theorizing about the concept of archetypes it became

clear that for Jung in his theory of archetypes the idea of the individuation process provided this background theoretical model for the practice of psychotherapy.

> "In this early time (1911 to 1912) he stated very clearly that his interest in the archetypes was not hermeneutic but their therapeutic use. When he first used the term archetype in "Instinct and the unconscious" in 1919 he borrowed the term from St. Augustine, and in this sense the emphasis was more on a model then on the process." (Humbert 1988, p. 89)

The idea of a psychological process assumed to be universal first appeared to Jung during his years in psychiatry:

> "For many years, he had to treat psychotic patients in psychiatric wards. He had to deal not with dysfunctions, but with the suffering of psyches that had failed to achieve adequate organization. This experience led Jung … to inquire into those archaic dynamics that are incomparably stronger than the conscious personality. Following a critical period in his own life, .. Jung discovered within himself the same kind of dynamics he had observed in psychotics. He noticed, however, that these dynamics need not cause destruction, but that they could, on the contrary, exercise a positive influence. By confronting these dynamics, Jung observed that psychological growth comes from the unconscious. Jung's twofold experience of psychotic patients and of psychic maturation let him to surmise, in what he wrote between the years 1919 and 1923, that unconscious factors are at the source of both psychic illness and psychic healing. ... Psychic organizers ... He concluded that these representations, or more elementary impulses, express more directly general situations and, therefore, psychic organizations that are valid for everyone. He called these organizations collective to indicate that the energy they have at their disposal and the forms to which they give life are what make us human. … The presence of archetypes justifies the therapeutic question as to whether it is possible to relate to unconscious organizing schemas such that they can have a positive influence on life. The search for the answer to that question is at the foundation of Jungian analysis." (Humbert 1988, p. 103)

Although the above quote still contains assumptions which have been demonstrated to be problematic on the background of contemporary knowledge, it still points out the central idea in Jung's archetype theory of archetypes being organizers, organizing schemas, yes, even transformers. The idea that archetypes serve as organizing structures has already been discussed by Van Eewynk (1991, 1997) in connection with the term attractors. To summarize this idea in contemporary language: there is an assumed dynamic inherent in the human psyche which manifests in a process, which, when activated, leads to psychological integration, growth and eventually healing – a goal which is usually in analytical psychology termed wholeness; the idea further contains the assumption that the stages of this process are universal and can be described in the form of typical images respectively psychological experiences circling around figures personifying psychological qualities. It is important to note this idea also contains the assumption that this process appears as if there were an autonomous – in the sense of independent from the conscious ego – factor behind the dynamic, which means there is an independent factor in the psyche/unconscious responsible, i.e., the transformation is brought about, at least partly, by this factor - in analytical psychology usually called the transcendent function. This idea, as much as it is characteristic for analytical psychology, also differentiates this psychology from other psychological and psychotherapeutic approaches. On the other hand it had an enormous influence on the development of other schools of psychotherapy, namely in the field of humanistic psychology and transpersonal approaches (Roesler & Reefschläger 2022).

Different models of process

Nevertheless, it has to be pointed out that even in this core part of Jung's theory there are different viewpoints to be differentiated: it makes a big difference if, on the one hand, one speaks of this process as a centring process, for which the archetype of the self is responsible, and which can manifest in images in the shape of Mandalas in the broadest sense, or if, on the other hand, the idea of this process contains a model of a sequence of stages which are clearly defined, as was pointed out above (the shadow, anima and animus, the wise old man/the great mother, etc.). The latter is a theory of a much higher complexity, and makes more far-reaching claims in the sense of nomothetic statements, whereas the first theory would probably find agreement among a number of contemporary schools of psychotherapy, e.g. Rogers' approach, Gestalt therapy, practically all of the schools belonging to the experiential/humanistic approaches, including the body therapies, e.g. Bioenergetic analysis etc. In Abraham Maslow's model of self-actualization more or less the same idea is elaborated (Roesler & Reefschläger 2022).

A very important part of this model is the idea of a self-organizing nature of the psyche. It implies a force or impulse that comes from the unconscious which takes a helpful stance in the development of the personality and which is behind the process that aims for the wholeness of the personality. So in this model the self and the unconscious actively contribute and collaborate for psychic recovery.

> *"The collaboration of the unconscious is intelligent and purposive, and even when it acts in opposition to consciousness its expression is still compensatory in an intelligent way, as if it were trying to restore a lost balance." (CW 9/I, para 282)*

A summary of the whole idea respectively theoretical model, called 'individuation', is provided by Murray Stein (2021) (again, containing problematic assumptions, which are underlined by me C.R., but nevertheless useful):

> "The basic definition of the term "individuation," as used in analytical psychology, is: Self-realization. This means, the gradual incarnation of potentials housed within the Self at birth and realized in the course of an entire lifetime. This is sometimes called "the acorn theory" of psychological development. A person becomes in life what they have brought with them as potential at birth. We are born with a Self, and it takes a lifetime to bring it to more or less full realization. Individuation is a process that unfolds in stages of psychological development.
>
> A basic distinction between ego and Self must be kept in mind. The ego is a part of the whole; the Self is the whole. Becoming WHAT one is and not only WHO one is a useful distinction. The word "WHAT" implies the psyche as a whole, while the word "WHO" refers to a conscious sense of identity as an individual. In the course of the individuation process, the "WHO" can approximate the "WHAT." This process is called "integration." Typically, integration is preceded by separation of elements in the Self, which results in the formation of the personality with the "WHO" located in the conscious sector and identified as "I" (ego). The left-out pieces of the Self, either simply neglected or pushed out in the process of separation, remain in the unconscious.
>
> Full individuation is a goal, and it is never fully achieved. It is approachable, but only relatively. This is because the unconscious is too comprehensive to integrate fully. One can get a glimpse of the Self in symbols, but one cannot fully integrate it.
>
> Individuation is an archetypal process. This means it is universally human and can therefore be thought of as a type of instinct that is inherited. It is a native human tendency to develop on the psychological level, which matches to a degree physical development.
>
> The process of individuation falls into essentially two phases: the first half of life and the second. The first half of life is typically further divided into two stages, which Erich Neumann named the Mother

stage and the Father stage. The first half of life is dedicated to ego development; the second half of life is aimed at integration of the whole psyche to the degree possible in a given human life.

The Mother stage, which begins in the womb and continues typically until the age of 10-12, is characterized by an atmosphere of containment, nourishment, and attachment. The infant must be brought psychologically into this world, and emotional attachment is the means by which this is achieved. This produces an essential experience of belonging and instills trust and security in the young person. Demands for achievement and judgments of performance are mild, ideally, at this stage of development, although the beginning of ego and persona development emerge since conformity to expectations of others is a required feature. Innate features of will and personality appear early on. Typological preference can be seen quite early in this phase. The Father stage begins with initiation into the world of demands for performance. This calls for identification with a peer group and with wider than familial cultural images and expectations, also for a stable location in the social order. Hierarchy is a feature of the Father world, and the individual is required to find a location in this social system. Ambition to achieve a place in the social world begins and dominates this phase. This is the phase of adaptation to culture, and a strong emphasis is placed on persona development. An adequate social identity is paramount for functioning in the Father world. High performance is rewarded, and the lack of fulfilment of cultural expectations is punished.

The Mother and Father stages constitute the first half of life. At the conclusion of this period the individual has formed a stable set of identifications and has generally established adult relationships and a secure position in the surrounding cultural world. Success is determined by social location in accord with the surrounding culture. Features of individual difference from siblings and family members also mark this phase of development. A recognizable stable adult personality has been achieved by the conclusion of this phase. Ego-consciousness has grown along with physical maturity, and we can speak of young adulthood achieved by the age of 35 or thereabouts.

The second half of life begins typically with a kind of new birth, which is initiated by a crisis at midlife. This brings about a major transition in the individuation process from early to late stage developments. The second half of life is characterized by the Self replacing Father and Mother as the central figure of authority. Neumann calls this the stage of the Individual. The emphasis is on becoming as fully as possible the "WHAT" that was given as potential at the beginning of life. This is a process of circumambulation of the centre, as Jung spoke about it. Psychological development in this stage is not linear but circular, moving around a centre (the Self) in ever widening patterns of integration.

The integration of shadow belongs to the second half of life. This is a process of becoming conscious of parts of the Self that were not admitted into the persona in the first half of life. The ego now begins to confront inner "opposites," and this work will continue in ever wider and deeper circumambulations throughout this period as consciousness expands to include ever more aspects of the Self.

Late stage individuation is characterized by an increased sense of the importance of discovering life's meaning and developing the spiritual aspects of the Self. A sense of transcendence from the everyday world of achievement and social position as well as a broader view of life's meaning can result in a psychological state of what people have traditionally called "wisdom." Toward the end of life, this development becomes increasingly urgent. The "religious instinct" comes to dominate instincts of nourishment, sexuality, and activity. The emphasis is more on reflection and a deeper type of creativity than has been in operation in the earlier phases. Many of the great works of world literature, such as Dante's Commedia, have been the products of this phase of individuation. Jung's late autobiography, Memories, Dreams, Reflections, is another example.

This outline of the individuation process is used by Jungian psychoanalysts as an assessment tool in their clinical work. It gives them insight into what the important issues are for their clients often beyond what the clients are able to express on their own. The goal of Jungian analysis is to foster the individuation process in the lives of clients, which also has the effect of doing the same for analysts." (Murray Stein: Individuation; https://iaap.org/individuation-2/)

This is a highly comprehensive account of what could be called the classic theory of development and the goals of psychotherapy in analytical psychology. It is also a more careful definition of the individuation process, as it emphasizes the centring nature of the process, and does not delve into the whole sequence of assumed stages, e.g., anima/animus or the so-called mana personalities. In so far, it is a good example of the first variant of the above-

mentioned process models in analytical psychology, whereas the second would include a detailed description of the stages involved in the process (to be found in the papers in CW 7) . Very generally speaking, the first model is much easier to accept even for someone being sceptical about the validity of the assumed archetypal stages, whereas the second model includes several problematic assumptions, e.g., about the nature and qualities of the counter sexual inner image. The second model contains as the central element the idea that consciousness develops out of an unconscious matrix which is pictured in myths and images of the hero emancipating from figures connected with the great mother – this model, in its assumed to be universal form, has been falsified on different levels: first, the development of the brain cannot be described as starting from an unconscious matrix, in contrast, consciousness is first (see chapter Biology); second, in the chapters on anthropology and mythology it was demonstrated that Jung and Neumann chose their material very selectively and took a Eurocentric view, the idea of a great mother as the source of life is by no means universal. So, it can be said in general, that the whole of the second model with its sequence of stages is flawed and needs to be discarded.

It is interesting that recent accounts of the process which is assumed to unfold in Jungian psychotherapy often ignore the model of the stages containing the classic archetypes; for example Kast (1992), in her ambitious attempt to reformulate the process in Jungian psychotherapy, successfully integrated the insights of infant observation and the concept of 'representations of interactions that are generalized' (Boston Change Process Study Group, Stern 1985), but describes the psychotherapeutic process, although she calls it archetypal, without any reference to the classic archetypes, i.e. anima/animus, shadow, the wise old man etc. The same applies to the publications by Mario Jacoby (1993, 1998), who also attempted to integrate the Jungian approach with the findings of the infant researchers and Kohutian self-psychology. In his publication of 1998 about the relationship in Jungian psychotherapy, the term archetype is almost totally abandoned, the conceptualization of the 'self' follows Stern (1985), not Jung. The only reference to the term archetype is to the "creative and ordering factor, which is called archetype" (Jacoby 1998, p. 89; transl. CR), which enables us to form a generalized representation of all the experiences in relationships. In his 1993 publication about the transference and its role in the Jungian model, again the only reference to the term archetype is by mentioning the archetype of the wounded healer as a role model for the therapist in the therapeutic relationship (see below for more details).

There are two major problems connected with these ideas of a universal transformational process: the first being the question of validity of these concepts, respectively connected with it the question how Jung came to conceptualize this process in the form he presented it; the second question concerns the role the therapeutic relationship takes in this process, a question which will be discussed in detail below referring to developments in the broader field of psychodynamic therapies and contemporary conceptualizations of the role of relationships in development and in psychotherapy.

Is Jung's model of the individuation process universal?

Jung claims that he developed his model of the process in psychotherapy from clinical material provided by his patients, in what could be called a quasi-empirical process of theory building, as for example in the following quote:

> *"The chaotic assortment of images that at first confronted me reduced itself in the course of the work to certain well-defined themes and formal elements, which repeated themselves in identical or analogous form with the most varied individuals. I mention, as the most salient characteristics, chaotic multiplicity and order; duality; the opposition of light and dark, upper and lower, right and left; the union of opposites in a third; the quaternity (square, cross); rotation (circle, sphere); and finally, the centring process and a radial arrangement that usually followed some quaternary system. … The centring process is, in my experience, the never-to-be-surpassed climax of the whole development, and is characterized as such by the fact that it brings with it the greatest possible therapeutic effect." (CW 8, para. 401)*

It has to be noted that the model presented in this quote is what I have termed the model of a centering process, in contrast to the model which includes all the stages represented by the classic archetypes – the most detailed account provided by Jung of this second model can be found in "The relations between the ego and the unconscious" (CW 7). I have already commented that it is a shame that Jung did not document the material he used for the first model, not to speak of he never published it. As to the second model, including the archetypal stages, it seems to me that he developed these ideas during his so-called confrontation with the unconscious as part of the crisis after the break with Freud. There is no doubt that these ideas were in statu nascendi when he published his 1912 paper "Wandlungen und Symbole der Libido" (Symbols of transformation, CW 5). But, as I have pointed out, and many critiques have demonstrated, this text is by far not a systematic study, but more a documentation of Jung's own associative processes. So the question arises: did Jung develop this elaborate model of the individuation/psychotherapeutic process just from his personal experiences, and from then on applied it to his cases in the conviction that what he had experienced was universal? The interesting point, when scanning Jung's collected works, is that those papers in which he demonstrated the validity of his model with case examples, he always presents only a selection of material, and not the total of the material available. So, for example, in "Individual dream symbolism in relation to alchemy" (CW 12), Jung discusses a series of approximately 40 dreams by which he demonstrates the appearance of the classic archetypal stages of the individuation process. It is well-known that the dreams were presented by Wolfgang Pauli in his analysis with one of Jung's followers, and Jung received the dreams to use them for his study. But the whole dream series contains approximately 1300 dreams (as stated in Pauli's comments to Jung; Meier 2001) – so the question is, why did Jung select the 40 dreams he used, and what is the material in the other dreams?

We know how for Jung his concept had unconditional validity and he did not let anyone question it. What I am trying to point out is the following problem: Having once declared a theoretical system of explanation as valid for oneself, it will impact or even form the way how we look at reality. So, there is the danger of constructing a reality which is based more on one's own concepts than on the client's reality, when looking at a client with such a bias. In the history of analytical psychology starting with Jung himself there has been a lot of effort to find validation and confirmation for Jung's statements. What is missing from my point of view

is a more skeptical attitude, and with it, an active search for confirmation or refutation of the concepts. This could, for example, consist of research projects documenting in detail analytical processes with all the material included, i.e., dreams, phantasies, pictures, symbols etc., and then to investigate this material open-mindedly, testing whether the processes match with how Jung describes the individuation process, instead of publishing only exemplary cases. The latter, of course, is a problem not only in analytical psychology, as Westen (2001) points out:

> "Narrative case reports... are invariably compromise formations. We hope they include a heavy dose of relatively accurate perception and memory. But as compromise formations, they are likely to reflect a variety of wishes and fears. Convincingly, to appear intelligent and clinically talented to one's colleagues, to establish one's identity as a member of the analytic community (or a subset of it), to express identification with admired others and with those whose admiration one desires, to express competitive or hostile impulses toward those with whom one disagrees or dislikes, and so forth. Among the most important limitations are lack of replicability, lack of reliability of inference, lack of control over variables that would allow causal inference, and unknown generalizability." (Westen, 2001, p. 883)

Because of this attitude, Jung's case examples as well as many others published in the history of analytical psychology may have served the aim, first and foremost, to affirm the already existing model, instead of investigating it open-mindedly. In those cases in which a critical attitude was applied, it could be demonstrated that even classical cases of Jung's could be well explained without any reference to archetypes (e.g. Merchant 2019).
So, as a consequence from these considerations, it would be interesting to find out how Jung actually proceeded when he practiced psychotherapy, how he dealt with the material as well as with the therapeutic relationship, in practice as well as in theory, i.e., how he conceptualized transference.

Jung's actual practice of working in psychotherapy

Apparently, Jung could be very sensitive, present, compassionate and supportive in his therapies and by doing so helped his clients very much - we know that from a number of students who were in analysis with him and later became training analysts and scholars of analytical psychology. But it seems to me as if there were a certain bias, as if mainly those ideal therapies are being passed on and remembered in analytical psychology. For a number of years, I have collected first-hand reports by former clients of Jung's, as far as they are available in the literature, e.g. Wheelwright (1984), Shamdasani (1992), Medtner (1935), Douglas (1977), Bair (2003, p. 376-400), Reid (2001), Jaffé (1989).
When I read those reports I was stunned by the great number of sessions in which Jung did not even occupy himself with the material of the client but rather held lectures. In long monologues he explained his theory and how it had to be applied to the client (e.g. Reid 2001). I would go as far as saying: from a contemporary point of view this is not psychotherapy at all but rather education. Again, it can be seen here, from Jung's point of view his theory had absolute validity. In many cases he forced his view about their psyche on the patients even though some of them even fought against it. Rather extreme examples are Christiana Morgan and Henry Murray, who both left very detailed reports about their experiences with Jung (Douglas 1997, Murray, without publication year). Henry Murray was a famous American psychologist and later head of the psychological department at Harvard University, so it can be said that he was someone who knew a lot about psychotherapy. Morgan went to see Jung

because of her affair with Henry Murray, who was in analytical therapy with Jung at the same time.
Murray himself complained that the concepts Jung was using were extremely autobiographic and that everything Jung talked about was rather about his relationship with Toni Wolff. He openly assumed that Jung's main interest was not the patient nor his development and he therefore was not really paying any attention to the reality of his patients.
"He does not know how much he talks. He also writes that he lets the patient go on and on, then the patient arrives at what path he ought to take just by a sort of spontaneous process after going through alternative possibilities. He gives you a picture of taking a very listening part, not passive but not intervening. But he is intervening, every single minute. He tells you every minute what he thinks or very close what he thinks, even though he may not say it explicitly in so many words." (Murray, C.G. Jung Biographical Archive. Countway Library of Medicine).
Jung advised him explicitly to use his two partners (wife and affair) in the same way Jung did, giving the role of housewife and mother to the one and the role of Femme inspiratrice to the other and to explicitly talk about this with both of them.
In accordance with "Die Ehe als psychologische Beziehung" (Marriage as a psychological relationship, CW 17) Jung tried to force his theory of the containing and the contained on his patient Christiana Morgan, Murray's lover, rather than taking any interest in her problem. He told her to take on the role of the femme inspiratrice for her lover because it was important for his development. He said to her: "You are a pioneer. Your function is to create a man. Some women create children, but it is more important to create a man. If you create Murray, you will have done something very important for the world." (Douglas 1997, S. 151). She surrendered to this recommendation and gave up on her wish to marry her partner.
Jung and Toni Wolff even developed a theory based on the attribution of a role to the woman as inspiration for a man.
"Es gibt Frauen, die nicht dafür da sind, um physische Kinder zu gebären, sondern um einem Mann zur Wiedergeburt im spirituellen Sinne zu verhelfen, was eine hochgradig wichtige Funktion darstellt" (There are women who are not made for giving birth to physical children, but to help a man to find rebirth in a spiritual sense, which is a highly important function) (Jung in a letter to Carol Jeffrey, June 18th 1958; Jung 2012).
Joseph Wheelwright reports that this viewpoint was very much supported in the early Jungian community: "We were told that women were not really capable of thinking for themselves. Women were supposed to make the thoughts of a man real and concrete" (Wheelwright 1984, p. 160).
What these reports can tell us could be the realization that we should be careful to overemphasize our own model of how the psyche functions and which path the client should take. As soon as this model becomes a belief system, which may have worked for ourselves, we may become intolerant to the differing realities of our clients. We should also ask ourselves why we so very much want Jung's model to be true. Is not analysis about emancipating oneself and becoming independent from the masters and their models?

Jung's view of transference

One of the strongest contradictions that can be found in Jung's works concerns his attitude to the concept of transference. In the beginning, during his cooperation with Freud, Jung emphasizes the importance of the transference for any psychotherapy. Later, the concept

becomes less and less important. This development happens while he engages more and more in relationships with earlier clients, especially females. Then he argues, the natural gratitude of the patient could turn into a personal friendship: "A personal human reaction to you is normal and reasonable, therefore let it be, it deserves to live; it is not transference anymore", but "harmless intercourse" (Healy 2017, p. 105). Analysts from his circle, e.g. Maria Moltzer, criticized this statement already at that time (Bair 2003).

Many of Jung's female patients continued to have extremely strong transferences towards him, and in some cases he made use of this to his own advantage by letting them work for him (Kirsch 2004). Jung repeatedly let women, who were fascinated with him, work for him by not resolving their strong transference to him. Toni Wolff also used to be one of Jung's clients in the beginning, as well as Marie-Louise von Franz who came to him when she was 19 years of age. Jung knowingly used her transference to him, asked her to search material in libraries for a new project of his - the study of alchemy, which Toni Wolff did not want to help him with. Von Franz herself talked about her extreme transference on Jung and how it affected her life: *"It made me isolated. I had no friends of my own generation. I was always alone, so therefore I could do his scholarship. I shed all to other people. I suffered a lot for that, because I never knew what was wrong with me, why I could not get on with my people (i.e., those of her own age). I lived in another world than they did. So it gave me a lot of time to study and work for Jung." (Bair 2003, S. 370)*

There are also examples of cases that are the other way round: Jung did not take Wolfgang Pauli in therapy himself after a first interview, even though Pauli strongly asked him to, because Jung was only interested in the archetypal material that Pauli produced.

It becomes obvious that Jung in these cases put himself in the center and the development of his own personality before anything else, even at the cost of hurting other people. He did not show compassion, nor did he take any responsibility for his actions:

"What could you expect from me? – the Anima bit me in the forehead and would not let go." (Bair 2003, S. 248). That means, the archetype is always overpowering and inevitably imposes its will on the person, there is no personal responsibility[16].

Jane Wheelwright, one of Jung' s early followers, said: Jung started relationships with people who resonated with his inner demon and kept those going as long as they helped him to deepen his understanding of the psyche. After achieving the insight that he needed this relationship for, he ended it and moved towards others that promised him new creative insight. The conclusion: Jung was more interested in the psyche than in individuals. This conclusion is supported by Laurens van der Post (Healy 2017, p. 204).

In 1946 Jung revised the role of transference in psychotherapy completely and calls it marginal. As a result, dealing with transference was not a part of the training at the Zürich Jung-Institute. June Singer, one of the first generation of students, complains:

> "We were never taught anything specifically about ethics in our seminars at the institute as far as I can recall. Most of what we learned about transference-countertransference was based on Jung's commentary on the Rosarium Philosophorum. Of course, we understood that this was all symbolic – you were not supposed to get into the bathtub with your analysand – but after the symbolism came

[16] This attitude is repeated in several places in a recent publication of statements by Jung collected by A. Jaffé (2021). The whole publication is a good example of the continuing attitude in the Jungian community to idealize Jung and uncritically adopt his viewpoints, even in highly controversial points as for example his relationship to women.

> and went, what actually was permissible? Somehow, with receiving the analyst's diploma, you were supposed to know." (Healy 2017, S. 106)

I am referring to these statements here because they demonstrate a problematic in Jung, on the level of personal life conduct as well as on the level of theory, when it comes to interpersonal relationships. From my point of view, there is no real concept of relationships in Jung's works, at least not in the sense of what kind of deeper meaning a relationship between two people has. To Jung a relationship is only a projection screen for the individuation process, at least in his theoretical concepts. When a relationship has fulfilled its function, it becomes worthless. And this is also how Jung acted: when Toni Wolff did not want to follow him into the research on alchemy, he let go of the relationship. This was absolutely tragic for her, in a way the loss of her meaning of life (Healy 2017).

In Jung's perspective development of the personality happens almost exclusively from inside the individual, autonomously, relationships do not play a role beyond their being a projection screen. For example: "At the heart of marriage is the question whether one can live his true nature, and if one can give the other – being it husband or wife – the freedom for their individuation" (Jung in Jaffé 2021, p. 57; transl. CR). This means a relationship, such as marriage, at best, is not an obstacle to individuation.

This attitude is in drastic contrast to the state-of-the-art in human and social sciences – and in practically all the other psychoanalytic schools - that relationships are at the very beginning of individual development and are absolutely essential for the development of the personality; the research and contemporary insights into this model of a relational self were presented in the chapter "Biology". There is a lack of clarity in the theory of analytic psychology as to where development comes from, which role relationships play in the matter and what that means for the therapeutic relationship.

Meanwhile there has been some theoretical development regarding the conceptualization of the transference and its role in psychotherapy, mainly in the British – so called developmental – school of analytical psychology. But there is no match to the theoretical developments in the Freudian tradition (e.g. object relations theory, self-psychology, infant observation etc.). From my point of view it is still an open question how these viewpoints on the therapeutic relationship (Jungian and post-Freudian) can be integrated. So, for example, what do the findings of attachment research mean for an archetypal perspective on the therapeutic process? In Germany, as far as I can see, in the training institutes a modern approach to the transference is presented, which is based on object relations theory, self-psychology and relational perspectives, and in a separated section there is teaching on archetypal transference, but it is not clear what the two have to do with each other. There is seemingly not even an awareness that the two models are, in a certain sense, contradictory.

The role of archetypes in the developmental school

> "Analytical psychology as elaborated by Jung and his immediate followers did not focus on the depth psychological aspects of the early infant and childhood development. Neither was there much attention paid to the usefulness of understanding the varieties of relationship that can occur in the consulting room between patient and analyst. … The lack of a clinical and theoretical tradition of investigation in these two important areas … with the resulting lack of interest in understanding their

> interrelationship via the analysis of the infantile transference, left analytical psychology impoverished in an important way. This would need to be rectified if analytical psychology was to go on developing as a creditable professional and clinical endeavor." (Solomon 1997, p. 119)

This quote from Hester McFarland Solomon's (1997) comprehensive overview of the so-called developmental school in analytical psychology pinpoints the central problem in Jung's writings about psychotherapy, the therapeutic process and the therapeutic relationship. In her paper, Solomon traces the development in the London group of Jungian analysts who found what they missed in the so-called London object relations school, namely in authors like Melanie Klein, Donald Winnicott, and Alfred Bion.

> "Klein's conception of body or instinct-based experiences as the root of all psychological contents and processes accords the findings of Jung concerning the existence of deep psychological structures, which were grounded in instinctual experiences and re-presented mentally by archetypal images. … Jung called these mental images of body-based experiences archetypal images, whereas Klein called them part objects. Despite the difference in language, they both referred to the early relationships of the self with the internal representations of the different functioning capacities of the caregiver. … In whatever language was chosen, both Jung and Klein propose the existence of the innate mental structures which directly link to and serve as vehicles for the earliest biological and instinctual experiences of the infant." (p. 125-26)

Besides Klein's contribution, the London Jungians also found useful concepts in Winnicott:

> "Winnicott's vision of the self developing in relation to another found reverberations in the long-standing Jungian view that the development of the self and other archetypal potentials were mediated through interaction with environmental factors, including the important other carers, as well as with the analyst." (p. 129)

This model was later enhanced by Michael Fordham and his process model of disintegration-reintegration (for a detailed overview see Roesler 2021). The general idea in Fordham includes the concept of a self as first described by Jung, which can be seen as an original integrate or the unique identity of the child, which is present from birth. Through encounters with the environment, which in a certain sense question or confront this original integrate, processes of disintegration are initiated, which can only be re-integrated via the interaction with caregivers. In this model, in contrast to Jung, the role of interaction with caregivers and their capacity to help and support the infant in reintegration becomes crucial; this role can also be taken over by the analyst in psychotherapy - in both kinds of relationships it is the interaction which provides the continuity of the self, even though the integrity of the self and its capacity for self-regulation and healing is given from the beginning.

It has to be pointed out that this new model which developed in the development school is fundamentally different from Jung's model, which puts emphasis on the aspect of self-regulation, in the sense that the process comes out of the individual. In Jung's model the other is nothing more than a projection screen on which the archetypal deintegrates are projected, and, if the process is wholesome, can be acknowledged as parts of the self, which then can be taken back and incorporated consciously into the personality.

More recent "Post-Jungian" approaches even go beyond that:

> "What has impressed me is the way in which the two apparently opposed developmental and archetypal [meaning: Hillman; CR] schools have reacted similarly in an iconoclastic, revisionary way to the expressed tenets of classical analytical psychology. The two wings are attacking the centre. … For example, both schools find the classical concept of the self to be overweighted by emphasis on

> potential and review of conflict conditioned by possibilities of resolution. Both schools have earthed the idea of individuation. … Crucially, both schools do not strive for wholeness as a psychological goal. Instead, a differentiation of psychic contents is stressed, equally well illustrated whether we speak of ‚polytheism' or of the ‚deintegrates of the self'." (Samuels 1990, p. 294)

There is also another important point to be made: the model of the developmental school is more or less identical with the first of the above-mentioned versions of the core or process theory, the idea that from the beginning there is a preformatted identity or center of the personality and that the process is of a centering nature. As far as I can see, there is no place in the developmental school for what I have called the classical archetypes, or the second version mentioned above, that is a process which can be mapped as a sequence of stages, and these are clearly defined by their content.

Jean Knox (2009), in her paper which attempts to integrate Jungian, attachment theory and developmental perspectives into a theoretical model of the analytical relationship, correctly stresses the point that it was Jung, who first in the history of psychoanalysis spoke of the mutual relationship between analyst and patient, in which both descend into mutual unconscious entanglements and projections, out of which a conscious understanding and eventually individuation will emerge.

> "Nevertheless, there remain sharp divisions between different groups in both psychoanalysis and analytical psychology about the relative importance of the relational and interpretive aspects of analytic work. These divisions partly reflect the differing perceptions of the nature of the unconscious." (Knox 2009, p. 6)

Although contemporary approaches in the psychodynamic psychotherapies, as for example attachment theory, strongly support the idea that was already present in Jung's thought, as mentioned above, of a self-organizing principle in the psyche, these contemporary approaches differ from the classical viewpoint in Jungian psychotherapy when it comes to the role and shape of the therapeutic relationship.

> "It supports the view that the analytical relationship needs to be more flexible than either the classical psychoanalytic interpretive or the classical Jungian archetypal models would allow; in place of the uncovering of specific mental content (e.g. repressed Oedipal material or archetypes), an attachment orientated analyst accompanies the patient on the developmental journey, one that will sometimes require interpretation of such material but will also allow for new experiences to emerge in the analytical relationship." (Knox 2009, p. 8/9)

Knox points out that beginning with the object relations school in psychoanalysis, all of the contemporary relational approaches in psychoanalysis agree on the three fundamental developmental tasks that have to be accomplished in a successful therapy:

1. affect regulation
2. the capacity for mentalization
3. a sense of self agency

These capacities, especially affect regulation and the capacity for mentalization directly result from the relational interaction with the therapist/analyst: especially "the emotional regulation offered by the relationship creates the conditions necessary for the neuronal development in the orbitofrontal cortex and other areas on which affect regulation depends" (Knox 2009, p. 10). These tasks are very different from what Jung thought to be the aims of therapy. Here, the relational model speaks of mental capacities, whereas Jung speaks of clearly defined

stages of a process - which has a parallel in what we found (in the chapter on biology) to be different in Jung's view of biologically inherited qualities, i.e. archetypes, as being specified by their content (e.g. anima, the wise old man etc.) versus contemporary insights in innate qualities being mainly capacities for interaction, relating and communication. It is interesting that this differentiation repeats the insights from the discussion of contemporary developmental models in biology which also show that there are inborn mental capacities, but the emphasis is on capacity and not on content, whereas Jung's idea was that content patterns were preformatted.

Thus: "A developmental Jungian analysis may result in analyst and patient co-constructing a different kind of narrative from that which emerges in a more classical Jungian analysis, but in both approaches the patient's unconscious is seen as playing an active and creative role in the emergence of a meaningful analytic story." (ibid., p.14).

It also has to be noted that, based on the research presented in the chapter on biology, which found that inborn capacities consist of interaction and relationship abilities, in contemporary psychodynamic approaches the self in development is always conceptualized as "Self-being-with-other" (Stern 1985) - which is fundamentally different from Jungian conceptualizations. Contemporary approaches see the relationship at the beginning, whereas the Jungian school assumes that the self is preformatted and primary. **This is an unresolved question: where does development come from, from the relationship or from the preformatted self being an autonomous process? This question includes also the therapeutic relationship: where does therapeutic change come from, from the experience of the relationship with the therapist (which is then internalized as 'good object'), or is the therapist and the therapeutic relationship just working as a catalyst for an autonomous process coming from within?** I hope it becomes clear that these questions are absolutely crucial for the future of analytical psychology. If we will not be able to point out what is the specific about the Jungian approach in terms of how development comes about and how therapeutic change is effected, there is no reason why we should not just merge with the other psychodynamic schools – as publications like that by Kast, Jacoby and Knox imply.
Speaking of how change is effected in psychotherapy: there is another process model, or better to say a process metaphor, inherent in Jungian theorizing, which is rarely mentioned but, from my point of view, probably the most important metaphor for the psychotherapeutic change as contributed by Jung's thought, the idea of death and renewal being a basic image of how psychological change comes about, namely by letting go of the aims of the conscious ego– Jung sometimes uses the term sacrifice – which makes change and renewal possible. Personally, I believe that this is the most important contribution Jung made to psychology, as it refers to the deep mystery of how change in human life is accomplished, and it also links Jungian psychology with the religious and especially the mystical traditions. It also distinguishes Jungian psychotherapy from all the other psychotherapeutic schools and puts it in a spiritual context (for more details see Roesler & Reefschläger 2022).

The theory of archetypes as a hermeneutics

I believe that the process idea inherent in Jung's archetype theory can still be used for the psychotherapeutic process, but this requires that we give up on the biologistic and nomothetic, in many aspects even positivistic statements that Jung made about archetypes. In contrast, the theory of an archetypal process which takes place in psychological transformations and which can be described by its stages has to be regarded as an interpretation schema, a template for what could be called a clinically applied hermeneutics. Such a viewpoint has already been discussed in the humanities:

> "Consequently, it considers Jung's writings and analytic discipline of which they are the foundation as part of the cultural sciences, that is, as part of a comprehensive interpretive project in which Jung's interpretation of the self and its 'textual' productions (dream, myth, vision, art) are inseparable from his hermeneutics of culture. Indeed, the archetype is the culture of the self." (Barnaby & D'Acierno 1990, p. XVI)

These authors argue that Jung "did develop an interpretative methodology in his analytical practice, a hermeneutics. … Consequently, a properly Jungian hermeneutics involves the deployment of a flexible (pluralistic), comparative, and interdisciplinary exegesis that seeks out interpretive possibilities - not conclusions – and whose canonic procedures amplify the symbol-text by adding to it a wealth of personal and collective, historical and cultural analogies, correspondences, and parallels. In other words, the Jungian interpretation unfolds as a production - a positing of meanings in relation to and not the uncovering of 'the meaning'." (p. XVII)

Jung himself gives a very similar definition of this approach:

> "*The essential character of hermeneutics … consists in making successive additions of other analogies to the analogy given in the symbol. … This procedure widens and enriches the initial symbol, and the final outcome is an infinitely complex and varied picture, in which certain lines of psychological development stand out as possibilities that are at once individual and collective. There is no science on earth by which these lines could be proved right: on the contrary, rationalism could verify they are not right." (CW 7, para 287)*

It has to be noted though, and that was pointed out above in detail, that Jung himself often violated this principle by making far-reaching, even nomothetic statements with the claim of stating facts in the way of a natural science. He even practiced - and so did many of his followers - what could be called "vulgar Jungianism (the mechanical and reductivist allegorical rewriting of a text according to the master code of the archetypes) " (Barnaby & D'Acierno 1990, p. XXI). In contrast to this, we have to discard the idea that the meaning is fixed to the symbol, an idea which can only be characterized as a primitive form of naïve essentialist epistemology. Instead, meaning is only produced in an interactive relationship between at least two human minds – this is the reason why psychotherapy and psychotherapeutic change need two persons. And this relationship is much more than just a projection screen, it is a place where something new emerges. I believe that here, still, all the wonderful imagery of alchemy can be applied, as has been brilliantly pointed out by Nathan Schwartz-Salant (1998) in his "The mystery of human relationship". But we always have to keep in mind that these images are just metaphors, not tools to uncover 'the meaning', but elements used to enrich

the therapeutic relationship and the process going on in the client. The images that we use, and the mythological stories that have accumulated in human history, may be used as attempts to picture or describe these psychic processes so difficult to describe in theoretical terms. In this sense, we can find a new answer to the question: what kind of science is archetype theory (and with it analytical psychology)? I have already pointed out that Jung's attempt to formulate archetype theory as if it were a natural science was misconceptualized from the beginning, a 'scientistic self-misunderstanding'. Since at the heart of analytic practice in analytical psychology, that is when we deal with what we consider to be archetypes, we are concerned with images and other artistic creations, myths, fairytales and other narrative texts, symbols and imaginations, we could characterize analytical psychology as being a poetic science – concerned with finding, and sometimes even creating, meaning. This viewpoint has been excellently described by James Hillman (1971, 1975, 1983), who never made the mistake to confuse the psychology of the archetype with the natural sciences, but made clear from the beginnings of his archetypal psychology that he was speaking of a world of imaginations, of psyche, of soul.

The difference to classical archetype theory is that we no longer argue that behind these stories, images and cultural products are some innate patterns; the viewpoint that in these mythological stories, images etc. there is some psychological insight condensed into metaphors is just an idea, an interpretation scheme, which we make use of in psychotherapy – but we should never forget about its hypothetical and interpretive character. **In this sense, archetype theory could be reformulated as being a theory of cultural symbolization processes of psychological transformations.**

What remains of archetype theory?

Based on the insights presented in this study, there is no alternative to discarding the majority of assumptions inherent in archetype theory. It makes no sense to search for a biological or even genetic foundation for what we call archetypes. It is also not an anthropological theory which can explain assumed universals, nor can it provide any explanations about 'archaisms' which link modern humans with archaic humans from prehistory.

I believe that archetype theory can only survive if we radically reduce the theory, its claims and its scope of application. We should stop to make any assumptions about the 'instinctual' foundation of the psyche or any other dubious biological conceptualizations. Therefore, theories which are discussed in the field of psychotherapy recently, as for example Panksepp's model of basic emotional and action systems, or the idea of basic needs, although they have a high explanatory value, are not the same as archetype theory and should not be confused with it (if one wants to do so, the question comes up why we should maintain the term archetype for these processes, since it is so much confused with other meanings; these ideas are also certainly not specifically Jungian). We should also stop to make statements and claims about facts and relations in the fields of anthropology, prehistory, history of religion etc. – as I have pointed out, these are clearly refuted. Archetype theory should be reduced to an explanatory model for the process of psychotherapy. I strongly believe – and here I would still call myself a Jungian – there is a deep truth in the idea that there is a universal and

autonomous process in the psyche unfolding over the course of psychotherapy; I also believe that this process can be mapped. I am quite sceptical whether this map, when we have investigated well-documented processes open-mindedly, will look like what Jung described. Some elements may be supported; for example, it makes a lot of sense to me that the repressed aspects of one's personality appear as a shadow figure, and if a person succeeds in integrating these aspects the shadow will provide a wealth of qualities and energy to the person. I am not so convinced that the same applies to concepts anima and animus, the wise old man, etc., even though there may be something to these concepts. Also, it is not necessary to assume innate archetypes for understanding the processes around what we call the shadow; complex theory (Roesler & van Uffelen 2018) is absolutely sufficient for describing and explaining these processes (see below).

But the general idea Jung proposed, that there is a helping force in the unconscious which supports the therapeutic process by presenting symbols, images and narrative patterns, e.g. in dreams, I see as one of the most important contributions to the field of psychotherapy in the 20th century. Jung's idea of the self-organizing principle of the psyche, what also could be called the 'transcendent function', is the forerunner of a whole number of concepts at the heart of different contemporary schools of psychotherapy, among them the humanistic schools, the systemic approach etc. I would also stress the point that we can work with this approach without making dubious statements about its biological foundation, or by drawing questionable parallels to the fields of anthropology, religion, prehistory and the like. This does not mean that we cannot use knowledge from these fields, for example societal rules that have developed in indigenous societies or wholesame practices that have developed in the field of religion, as a form of wisdom which can inform the psychotherapeutic process - in the sense of that they tell us something about what it means to be human and what the psyche needs for healing and wholeness. We just have to keep in mind that if we use such elements they are just interpretations, i.e. forms of creating meaning, and not facts out there in the world. This attitude would imply to say goodbye to the reification of archetype theory. But when we practice psychotherapy, we are dealing with humans and human relationships, and this human world is characterized first and foremost by being a world of meaning.

What about the idea of a collective unconscious and its contents?

I have already proposed (Roesler 2021) that instead of continuing Jung's questionable assumptions about a collective unconscious and its preformed contents we could modernize these ideas by making use of the concept of cultural complexes as presented by Singer & Kimbles (2004a) - it has to be noted that the idea of a cultural unconscious was introduced by Joseph Henderson (1991). This would allow for maintaining the idea that there is a collectively shared sphere which is unconscious, and which can have massive impact on social groups and processes, yes even on nations and societies – by way of its 'numinous'qualities, if you like.

> "We call these group complexes "cultural complexes" and they, too, can be defined as an emotionally charged aggregate of ideas and images that cluster around an archetypal core. .. Group complexes are ubiquitous and one feels swamped by their affects and claims […]" (Singer & Kimbles 2004a, 176-178)

> (The term ‚archetypal core' can be understood here, in contrast to classical conceptualizations, as speaking for a matter of high relevance for humans in general, as for example identity, self-worth, autonomy etc.)

The crucial difference to the original concept of a collective unconscious is the point that cultural complexes are not conceptualized as being primal, i.e. before any experience – as it was pointed out, this assumption is more than questionable, if not refuted. Instead, they are built upon experience, but not so much on an individual as more on a collective, i.e. societal and historical level. In that sense the theory of cultural complexes is very much in line with contemporary approaches in the social sciences and does not continue the total neglect of social science viewpoints to be found in Jung's theorizing around the collective unconscious. The theory of cultural complexes can easily be integrated with concepts as the meme (see above), the cultural/collective memory and other concepts which are well established in the social and historical sciences. It can also be well aligned with conceptualizations in the broader field of contemporary psychoanalysis, such as 'the field', the shared unconscious etc. (for details see Roesler 2013).

> "Cultural complexes structure emotional experience and operate in the personal and collective psyche in much the same way as individual complexes, although their content might be quite different. Like individual complexes, cultural complexes tend to be repetitive, autonomous, resist consciousness, and collect experience that confirms their historical point of view. And, […], cultural complexes tend to be bipolar, so that when they are activated the group ego or the individual ego of a group member becomes identified with one part of the unconscious cultural complex, while the other part is projected out onto the suitable hook of another group or one of its members[17]. […] Finally, like personal complexes, cultural complexes can provide those caught in their potent web of stories and emotions with a simplistic certainty about the group´s place in the world in the face of otherwise conflicting and ambiguous uncertainties. … It is a description of groups and classes of people as filtered through the psyches of generations of ancestors. It contains an abundance of information and misinformation about the structures of societies – a truly inner sociology – and it´s essential building blocks are cultural complexes." (Singer & Kimbles 2004a, pp. 185-86)

Ironically, Jung's conceptualization of his archetype theory and how it has developed in the community of analytical psychology, i.e., the form it has taken of a belief system, could be called a cultural complex specific for the Jungian community.

Outlook: the directions of future research

> "As a final note, my guess is that Jung would not have wanted a legacy of a group of followers who look upon his theory with reverence rather than with a critical eye. Jung was well aware of the intellectual atrophy that developed in psychoanalysis because of this problem. The question is, will Jungians be able to avoid this potentially fatal error?" (Neher 1996, p.89)

These conclusions imply specific directions for future research in analytical psychology. If we reconceptualize archetypes as being cultural products, we have to investigate them by making use of the methodologies developed in the cultural and social sciences, i.e., mainly qualitative

[17] This quality of cultural complexes would allow for maintaining the important idea in Jung's archetype theory of a complementarity of the archetype, as having a bipolar quality, which is responsible not only for projection processes, but has a healing potential. As a consequence, this would also allow for maintaining the idea of a compensatory nature of the unconscious, which aims at balancing one-sidedness and completing the personality. Again, it is not necessary for maintaining these viewpoints to cling to the idea of innate archetypes.

and interpretive research methods (see for example Roesler 2006, 2010, 2021). Such studies should always start from the insights and approaches which have developed in the respective disciplines, namely anthropology, religious studies, comparative mythology etc. Future research should also clearly depart from the idea to find eternal archetypes, and instead incorporate the general viewpoints elaborated in the cultural and social sciences, i.e., that such structures and patterns always serve certain needs and interests on a collective as well as on an individual level and are thus subject to historical change.

There is especially a great need to conduct research on psychotherapeutic processes, in analytical as well as in other psychotherapies. As I have pointed out in an earlier report to the IAAP about future research strategies in analytical psychology (accessible on the website of the IAAP) the crucial point is to establish a comprehensive and standardized system of documentation to be applied to psychotherapeutic processes, so as to create a databank which would allow for detailed investigations of unconscious processes going on in psychotherapy. Only if we succeed in creating such detailed documentations, we will be able to search for interindividually occurring patterns, structures, symbols, processes etc. which then could support the above-mentioned idea of a universal process taking place in psychotherapy - we may then call archetypal. In the following, I would like to provide an example of such a research process and its findings:

For a number of years now I have been conducting research on dream series from analytical psychotherapies, investigating the connections between the structure and imagery of the dreams as they change over the course of therapy, the psychopathology of the dreamer and the results of therapy. For this reason, I have developed the method Structural Dream Analysis (SDA) (for details see Roesler 2020a, 2020b, 2019a, 2019b, 2018). We found that there is a clear connection between the initial psychological problem (i.e., the complex) of the client and the typical structure of the dreams in the initial phase of therapy, typically picturing the dream ego being threatened. In successful therapies there is a typical succession of dream patterns, with a middle phase in which the core problem/complex is worked on, and if this central pathological complex can be integrated, the structure of the dreams rises to a mature level of ego functioning, emotion regulation and autonomy. We have found this typical development of dream structures in successful therapies in several independent samples, lastly in a sample of 150 case documentations from the Stuttgart Jung Institute. Now the interesting finding, from the viewpoint of archetype theory, is that when the integration of the central complex is successful and the therapy turns into its final phase, towards more mature dreams structures picturing higher ego functioning and integration, at this turning point we have found for 40% of the cases a typical motif appearing in the dreams: there is a child for which the dreamer is supposed to care, or the child conveys wisdom, helpful information, or offers help. Of course, every Jungian is reminded of Jung's idea about the archetype of the divine child, which stands for the future or a new beginning, maybe even for the emerging Self. What makes me confident as a researcher is the fact that I did not expect to find this motif, nor did we even search for it. This is an example for what I would call an open-minded approach to investigating archetype theory.

Another interesting research question in the field of archetypes is how Jungian therapists actually work with what they consider to be archetypes, so as to get a more empirically

grounded understanding of the actual practice of analytic psychotherapy in the Jungian context– a claim that is not new in analytical psychology:

> "A second line of inquiry in clinical research concerns research into the clinical process. This would be mainly, though not exclusively, of interest to clinicians, and would focus, for example, on how practitioners employ the theoretical concepts with which they are equipped, or on how responses to particular kinds of material with which they are confronted by patients are managed differently by different practitioners on the basis of theoretical orientation and personal variables." (Samuels 1998, p. 26)

As I have argued in many places, what is needed to create such research approaches is, on the one hand, a more open-minded attitude in Jungians, which is not fixated on providing proof for Jung's theories whatever it may cost, but instead is interested to find out how things really are, in this case, what really happens in the course of psychotherapy. On the other hand, as soon as this attitude is given, we need a common effort to collect data, to systematically document our psychotherapies, and to build a solid databank for such investigations into the process of psychotherapy – whatever it is that we will find out in the end.

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Attachments

1. Extended compilation of definitions from the survey

Definitions which very generally argue that archetypes are very basic, typical patterns, predispositions and capabilities common to all men/universal; often there is a reference to cross-cultural similarities in art, religion, ritual, social practices provided as „evidence“ all the concept of anthropological universals

„A modern view of archetypes, much taken up within the SAP, is to understand archetypes as 'emergent' principles that come out of experiences that are common to all of us through our natural, early human experiences.“

“Speaking personally, I have come see archetypes, as Knox describes, as early patterns of experience that structure our experience throughout life and are thus profoundly important and influential, in fact foundational. A significant element of the work of analysis is concerned with recognising these patterns, seeing how they emerged through the individual's particular experience, and how they continue to powerfully influence and indeed determine the individual's life.”

„Archetypen sind allgemeinmenschliche Muster, Prädispositionen, Bereitschaften, Möglichkeiten des Funktionierens, Erlebens und Verhaltens.“

“[…] Ich meine, er sollte eher adjektivistisch verwendet oder verstanden werden, um Sachverhalte zu bezeichnen, die allgemeinmenschlicher Natur sind. Also anstatt vom „Archetyp des Baumes“ zu sprechen, würde ich lieber vom archetypischen Symbol, Motiv oder Erleben des Baumes sprechen. So verstanden lässt sich „der Archetyp“ definieren als ein allgemein-menschliches oder auch art-typisches, durchschnittlich zu erwartendes Muster des Funktionierens, Verhaltens und Erlebens in einer durchschnittlich zu erwartenden Um- und Kulturwelt.

„Jung introduced the concept of the archetype in 1919 explicitly in relation to Freud’s understanding of the unconscious, which Jung referred to as the “personal unconscious,” as distinct from Jung’s theory of the “collective unconscious.” The archetypes were thus first defined by Jung as the “contents of the collective unconscious.” [...] For Jung, at this early stage, we can say that the archetypes perform an analogous function in the collective unconscious; they provide structure to whatever is otherwise in the collective unconscious and mediate the entrance into consciousness of the material of the collective unconscious. I would go on to suggest that Jung’s theory of the collective unconscious derived first of all from his work with psychotic patients, and his debate with Freud regarding the so-called Schreber Case near the end of their relationship. I would therefore suggest that initially in Jung’s theorizing the archetypes give structure to clinical phenomena that are related to psychotic phenomena in a manner somewhat analogous to the ways in which Freud’s mechanisms give rise to neuroses.”

“The archetypal representations concern various cultural forms, and patterns, seen in symbolic images, dreams, symbols, narratives, rituals, fairy tales, myths, and religion. The archetype can be triggered by a perception (f.e. in dreams) and leads to a disruption of the ego-functioning (Meier, 2019a, 2019b).”

“The archetypal representations concern cultural forms and patterns, seen in symbolic images, dreams, symbols, narratives, rituals, fairy tales, myths, and religion. They include images, and stories how to deal with basic affects, and motivations.”

“The part of cultural forms and patterns (symbolic images, dreams, symbols, narratives, rituals, fairy tales, myths, and religion) is based on a developmental psychologist perspective. All human beings must pass during their life various developmental stages that need an orientation or re-orientation as birth, childhood, puberty, marriage, life itself or are challenged by life-changing circumstances as divorce, retirement, death etc. In these periods the ego-function, and protection mechanisms may

weaken, and primary process mechanism are starting to take over. In this transitional period cultural forms or patterns may bring back an meaning and help in the orientation process."
„Eine wesentliche Eigenschaft der bildhaften Gestaltungen des Unbewussten ist dabei die Beobachtung, dass diese bei aller individuellen Bedeutsamkeit doch offenbar überindividuellen, kollektiven Mustern der Gestaltung folgen. [...] Das Auftreten dieser Merkmale zeigt sich dabei unabhängig von individuellen Merkmalen wie Alter und Geschlecht und unabhängig von kulturellen oder zeitgebundenen Zusammenhängen. Sie lassen sich vielmehr historisch und zivilisationsübergreifend als Gestaltungsformen des Unbewussten im Menschen nachweisen, was letztlich als Hinweis für eine kollektiv angelegte Matrix von Gestaltungsmustern im Unbewussten gelten muss. Diese rein phänomenologisch begründete Musterhaftigkeit lässt sich unter dem Begriff des Archetypischen fassen."
"Or, the archetypal image can be amplified to collective mythology, whereby it is understood as traditional behaviour, typical for a certain culture, an institution or the entire human race."
"Empirical findings, that justify the hypothesis of an archetypal principal are mainly located in cultural research. Here, universal coincidences of structure, motive and image are found and here lays evidence for quite a few cross-cultural principles of structuring experience (empirically concluded from common structures in art, myth and behavior)."
„Meines Erachtens bilden sich archetypische Muster gut ab in dem, was man als Universalien bezeichnet und sie spiegeln sich – wie es die Analytische Psychologie ja ebenfalls sieht – auch in den kulturübergreifenden Symbolen, Erzählungen, Motiven und Themen der Menschheitsgeschichte. Wichtig erscheint mir dabei, dass hinter den vordergründigen, kulturell überformten oft sehr einzigartigen Erscheinungsformen die hintergründigen, ursprüngliche Muster gesehen werden. So ist beispielsweise der kabbalistische Lebensbaum als solches kein archetypisches Muster, aber er baut seine Elemente auf solche auf (Baum mit seinen Verästelungen, Stufen der Entwicklung und des Wachstums, Auf- und Abstieg, Bedürfnis nach Struktur, die Verwendung von Symbolen und Zahlen, die vielen Aspekte religiöser Erfahrung etc.). Solche Universalien müssten sich in Anthropologie, Biologie, Kunst, Religion, Neurowissenschaften, Psychologie (Allgemeine Psychologie, Entwicklungspsychologie, Gehirnphysiologie, Evolutionspsychologie, Kulturpsychologie, vergleichende Verhaltensforschung) etc. nachweisen lassen, was m. E. auch bereits genügend und überzeugend geschehen ist."
Das Auftreten dieser Merkmale zeigt sich dabei unabhängig von individuellen Merkmalen wie Alter und Geschlecht und unabhängig von kulturellen oder zeitgebundenen Zusammenhängen. Sie lassen sich vielmehr historisch und zivilisationsübergreifend als Gestaltungsformen des Unbewussten im Menschen nachweisen, was letztlich als Hinweis für eine kollektiv angelegte Matrix von Gestaltungsmustern im Unbewussten gelten muss. Diese rein phänomenologisch begründete Musterhaftigkeit lässt sich unter dem Begriff des Archetypischen fassen."

Definitions and conceptualizations which are closely linked with biological argumentations and/or ethology/behavioral biology, that even keep the definition of archetypes as instincts, as innate etc.:
"The archetypal structure is genetically transmitted. This means that even archetypal representations are to some extent genetically predestined. The archetypal structure embodies however only the possibility for representation; it must be fulfilled by fitting examples of collective and individual experiences.
"An archetype is the increased likelihood that behaviour (not necessarily only human behaviour) accords with particular geometries which are non-arbitrary, persistent across time and space and which are not determined by the phenotypic environment. Here "behaviour" is very general and is not limited to purely external behaviour but includes, for example, internal thoughts, feelings and conceptualisations."
"This means that proto-archetypes (instincts) can always be said to be "transmitted" and universal but human archetypes proper are not necessarily transmissable or universal. They are rather merely

possible/latent and “repeated” under certain conditions in specific individuals and depend on a development of consciousness, in particular the reflexive/recursive elements.“
“An archetype is a symbolic image/narrative that has a strong tendency to self-organize in the human psyche. The dispositions that give rise to archetypes are inherited and innate. Note that I differentiate between archetypal images and archetypal elements—an update of Jung’s differentiation between the archetypal image and the archetype-as-such. As we develop, the psyche will continuously take our lived experiences and, during dreaming or other reverie states, break them up and reorganize them into symbolic expressions. Such expressions will be arranged in accordance with some symbolic principles of organization which are innate (archetypal elements) and some which are not (learned elements). If a particular image uses enough archetypal elements to create an image/narrative, then it will by definition produce an archetypal image. This archetypal image will use the raw material of lived experiences, but put them into a not-literally-experienced form. Therefore, It is the form—i.e, the particular way the pieces of lived experience are arranged—that is innate about the archetypal image.”
“Combining these criteria, an archetypal image is: An image/narrative that is an indexical symbol of an emotionally significant experience that takes the subject’s personal history, breaks it down and re-combines it into an expression conforming mostly to innate organizational principles. […] It is so easily arrived at that evidence exists that it has been independently invented despite large variations in background.
“Thus, an archetypal element is defined as a universally self-organizing, emotionally significant, embodied symbolic association. They arise in everyone as a result of species-typical gene-environment co-action that does not require specific cultural instruction or imitation. Any learning involved in the construction of these is purely self-directed learning that will be immediately obvious to any normally developing member of species homo sapiens.”
“Archetypal images are composed primarily of archetypal elements—ordering principles that direct the formation of archetypal images. These are inherited along biological pathways. The genome directs their organization via the well-known genetic biological processes that direct all inherited characteristics. Such processes either involve no learning at all, or if they do involve any learning, it is self-organizing learning that has nothing to do with culture. That is, anyone raised anywhere on earth would teach themselves such elements with no need for specific instruction or imitation/observation (i.e., we are not born knowing the sun is round, but we need no instruction on this to obtain this knowledge).”
“My definition is parallel to Jung’s biological approach, he mentioned among others in his paper “Synchronicity: An acausal connecting principle” (1952), where he used biological analogies: “The archetypes are formal factors responsible for the organization of unconscious psychic processes; they are ‘patterns of behavior’” (Jung, 1952, § 841). This archetypal backup and response systems have been reflected in the collective memory over the centuries: “The archetype is a kind of readiness to produce over and over again the same or similar mythical ideas.” (Jung, 1942, §109). More important than the content of the mythical ideas of the archetypes per se is for Jung the willingness to produce these images. However, it needs certain environmental and psychological features to start the process.”
“In any case, the archetype is much more than a reflex. The image of the human archetype, represent a part of the innate archetypal structure that may, or may not, become conscious during the life time.
“Archetypische Wirkmuster werden hier entwickelt in Analogie zur Triebausgestaltung der biologischen, somatisch verankerten Instinktsphäre als deren psychologischer Entsprechung in geistig-seelischer Dimension. Dies fasst Jung in der Begrifflichkeit des „pattern of behaviour“ (C.G. Jung GW 8, §397ff., Walter-Verlag 1946) zusammen als einem gemeinsamen Charakteristikum für den musterhaften Ablauf sowohl des biologisch-somatischen Triebgeschehens wie des geistig-seelischen Entwicklungsprozesses. Dem biologisch begründeten Ziel der Trieberfüllung auf somatischer Ebene stehen hier das Sinnerleben und die Sinnfindung als Erfüllung des geistig-seelischen Bedürfnisses gegenüber. Die Zielerfüllung wird auf dieser Ebene jedoch nicht durch

Verhalten erreicht wie auf der somatischen Ebene, sondern durch die Suchbewegung entlang der Impulse des Unbewussten, deren Zielrichtung als sinnstiftend und zur Erfahrung von Sinn auf individueller, subjektiver und daher nicht allgemeingültig objektivierbarer Ebene führt. Diese Impulse werden dem Bewusstsein in Gestalt der Bildersprache des Unbewussten übermittelt und erfordern die Auseinandersetzung des bewussten Ichs mit ihnen, um zum inneren Ziel, eines Sinnerlebens und damit einer Weiterentwicklung und Bereicherung der Persönlichkeit zu führen
„Jung proposed that each complex has an archetypal core, and that the archetypes are simply instinctual patterns of behaviour. So for example, with the complexes described above of the depressed mother or the bullying father, we can see that these experiences exist in every culture and are reflected archetypally in many myths and stories; film is a particular clear exemplar of modern myth and we don't have to go far to find portrayals of depressed and abandoning mothers or bullying and murderous fathers.“
“Die archetypischen Muster sind meiner Auffassung nach dem Gesamtsystem Naturgesetz-Umwelt-Mensch-Mitwelt strukturell inhärent. Sie haben sich im Laufe der Evolution in Anpassung an die gegebene Umwelt entwickelt, sich im Körper mit dem Gehirn und seinen Funktionen und Fähigkeiten manifestiert und sie ergeben sich aus der Art und Weise, wie das Körper/Psyche-System in Beziehung zur Mitwelt eben durchschnittlich funktioniert. Sie sind variabel und anpassungsfähig und werden im einzelnen Menschen von seinen individuellen Möglichkeiten, seinen sozialen und kulturellen Einflüssen gefördert, unterdrückt oder modifiziert.
Diese Muster sind von daher auch nicht im engeren Sinne genetisch genau festgelegt oder programmiert, sondern sie sind vielmehr Prädispositionen, Reaktions- und Bereitschaftssysteme, in einer bestimmten, durchaus auch variablen Weise funktionieren zu können (siehe Jung). In welchem Umfang und in welchem Detail das Körper/Psyche-System dabei genetisch/epigenetisch festgelegt ist, lässt sich zum jetzigen Stand der Forschung nicht genau sagen. Bei den genetisch bestimmten somatischen wie psychischen Eigenschaften des Menschen sind nicht nur einzelne, sondern viele in komplexem Zusammenspiel wirkende Gene beteiligt, so dass man von der Gesamtzahl der Gene nicht auf die Zahl der genetischen Möglichkeiten schließen kann. Hier – wie beispielsweise auch im Gehirn – muss man wohl von einem hochkomplexen Wechselspiel der Komponenten ausgehen.”
„Es ist die Menschenart des Menschen, die spezifisch menschliche Form seiner Tätigkeiten. Die spezifische Art liegt schon im Keim. Die Annahme, daß sie nicht vererbt sei, sondern in jedem Menschen neu entstehe, wäre ebenso unsinnig wie die primitive Auffassung, daß die Sonne, die am Morgen aufgeht, eine andere sei als jene, die am Abend zuvor unterging.“ (Jung, 1954a, § 152)“
„Archetypische Muster scheinen relativ universal zu sein und lassen sich überall dort beobachten, wo ein gesunder, funktionsfähiger menschlicher Organismus auf eine durchschnittlich zu erwartende förderliche Umwelt und auf durchschnittlich zu erwartende förderliche Lebensumstände trifft.“
„Das ganze „System Mensch“ in seinem Funktionieren, Erleben und Verhalten ist in einem evolutionären Anpassungs- und Selektionsprozess an die Um- und Mit-Welt entstanden“

Definitions and conceptualizations of the kind: archetypes are contentless forms which shape human perception into definite images and ideas, but also behavior patterns
“Archetypes are not inborn ideas, but “typical forms of behaviour” which, once they have found their way to consciousness, “naturally present themselves as ideas and images.” (CW 8, par. 435). Archetypes have an organising influence on images and ideas. They are not themselves conscious, but underlying ground themes upon which conscious manifestations are sets of variations (Storr 1983). Archetypes are expressions of the life energy, libido (Jacobi 1942). They are timeless and universal and determine for the species and individual specific behaviour. Archetypes may or may not manifest themselves as images in vital life situations; but they are, in any case, latent or active psychic elements that animate individual and collective behaviour. In one form or another they underpin all matter.”
“Images and narratives which utilize mostly archetypal organizational principles (i.e., archetypal elements) are archetypes by definition. Generally, the psyche continuously and spontaneously puts together symbolic images in its ongoing efforts to summarize and encapsulate the meaning of a

subject's current life situation, as is seen in dreaming, mental wandering, or undirected visions. It does this by taking memories, breaking them up, and then re-organizing them into imaginary symbolic narratives, particularly in the case of dreams. It uses a variety of symbolic associations to create such images and narratives. Some of these associations will be learned: using money as a sign of status or value, for example, in a dream about "winning the lottery" is a symbolic association unlikely to occur to someone raised in a culture without currency. That association (i.e., money = value), therefore, does not qualify as an archetypal element. Some associations, however, will be innate (i.e., universally emergent). Any construct that contains primarily archetypal elements as opposed to learned elements will therefore qualify as an archetypal image, and because the elements used to construct them are so universal, such expressions should arise independently around the world."
„Die phänomenologisch belegte Tatsache einer individuellen Teilhabe an musterhaft geprägten Ausdrucksformen des Unbewussten als Zugang zu subjektivem Sinnerleben weist auf eine überindividuelle, kollektive Ebene des Unbewussten hin, die eine anordnende Funktion der psychischen Vorgänge und Vorstellungen entfaltet. Diese wird als archetypische Dimension bezeichnet wird. Sie begründet zugleich die Auffassung einer geistig-materiellen Einheit des Bewusstseins."
Archetypes as elements of the collective unconscious can be seen as an impersonal precondition for the formation of experience. They are "not determined in terms of content, but merely formally", they have aspects of "an a priori possibility of the form of representation", they are numinous, unreceptive and not really recognizable (Jung 1936, CW 9/1 §155). They appear as „determining effects emanating from the unconscious" (Jung 1936, CW9/I §118), they seem to be „categories of imagination" (Jung 1936, GW9/I § 89), structuring agents and general principles and motives."

Definitions and conceptualizations which follow the last conceptualization (that is, archetypes are contentless forms which shape human perception and action), but that add a viewpoint of general systems theory/dynamic systems theory, stressing the aspect of self organization of the psyche, as well as the interaction of individual and environmental factors
So verstanden lässt sich „der Archetyp" definieren als ein allgemein-menschliches oder auch art-typisches, durchschnittlich zu erwartendes Muster des Funktionierens, Verhaltens und Erlebens in einer durchschnittlich zu erwartenden Um- und Kulturwelt. Ein solches Muster ist meiner Auffassung nach ein systemisches Ergebnis von sich gegenseitig wechselwirkend beeinflussenden, ökologischen, biologisch-evolutionären, sozialen und kulturellen Faktoren. Das Archetypische gründet von daher nicht allein im menschlichen Organismus, sondern im Gesamt von Naturgesetzen, Umweltfaktoren, Biologie und Kultur, partiell also auch in der Materie, den Pflanzen und Tieren."
"An archetype is a symbolic image/narrative that has a strong tendency to self-organize in the human psyche.
"Thus, an archetypal element is defined as a universally self-organizing, emotionally significant, embodied symbolic association.

Definitions and conceptualizations which argue with highly formal, e.g. mathematical or probabilistic characteristics; in some cases they refer to ideas and conceptualizations in the context of the Pauli-Jung-dialogue:
My view is more in line with Jung's later writings, in particular the conversations with Pauli: „Your idea that the probability concept in mathematics corresponds to the archetype was most illuminating. In fact, the archetype represents nothing else but the probability of psychic events." (Jung and Pauli 2001, letter 49J).
""Geometry", because "pattern" is too colloquial and has associations which are fundamentally couched in terms of simple images; a "pattern" tends to be describable in words which fatally compromises the notion of archetype and collapses it into the very different and inadequate notion of "archetypal image" […]"

Die infrage kommenden Formen sind, wie oben genannt oft von polarer oder quaternärer Struktur, radiär angeordnet oder zentriert um einen Mittelpunkt. Sie können Gegensatzspannungen und paradoxe oder symmetrische bzw. komplementäre Elemente enthalten. Auch wellen- oder strahlenartige Erscheinungen, überwältigende Naturereignisse oder kosmische Szenarien beispielsweise in Träumen können die Grundlage für das Erleben einer archetypischen Qualität bieten."

Philosophical conceptualizations: archetypes are formal categories given a priori that provide the basis for human perception and action; often these definitions make references to Aristotelian metaphysics, Kantian categories or Platonian ideas

„In einem funktionalen Sinn sind Archetypen Strukturmedien oder Verbindungs- und Trennungsverhältnisse der Jung'schen Theorie und Praxis . Sie stellen ein Hauptkonzept von Jungs Interpretation der conditio (in-) humana dar: der Interpretation eines Menschseins, das sich, um Mensch sein zu können, mit dem Unmenschlichen auseinandersetzen muss . In diesem – und nur in diesem – relativen Kontext können Archetypen als ‚universal' gelten. Es ist deshalb verfehlt, einen darüber hinausgehenden Universalismus in Bezug auf andere Wissensfelder zu vertreten . In der analytischen Praxis strukturieren Archetypen das gesamte Erfahrungsfeld, die Selbst- und Fremdbeziehung, Übertragung und Gegenübertragung, Träume, Phantasien, Ideen usw. Im Theoretischen betreffen sie sämtliche antinomischen Selbstverhältnisse des Menschen, die historisch gesehen erstmals – und damit wechseln wir von Jung ins Feld der Philosophie – in der aristotelischen Metaphysik rational zu erfassen versucht wurden."

„Archetypen sind Strukturmedien oder Verbindungs- und Trennungsverhältnisse (VTV) der Jung'schen Theorie und Praxis. In diesem (relativen) Kontext sind sie „universal": In der Praxis betreffen sie Selbst- und Fremdbeziehung, Übertragung, Träume, Phantasien, Ideen usw. Im Theoretischen betreffen sie sämtliche antinomischen Selbstverhältnisse der auf den Mythos folgenden klassischen Metaphysik wie Sein, Natur, Menschliches und Göttliches. All diese Bereiche sind ebenso Medien bzw. VTV wie die aus dieser Grundmatrix entstehenden Wissenschaften: Der Mensch hat Anteil am Sein, an der Natur, am Geist usw. (Verbindung) – aber er geht nict in dieser Verbindung auf (Trennung). Im Verband mit dem weiteren Strukturmedium Komplex verbinden und trennen Archetypen Allgemeines (Kollektives) und Besonderes, Bewusstes und Unbewusstes, Menschliches und Unmenschliches, Eigenes und Fremdes. Im Hinblick auf die Ich-Funktionen trennen und verbinden sie Wahrnehmung, Denken, Gefühle, Sprache usw. (Um ein Beispiel zu bringen: Die Ich-Selbst-Achse impliziert sowohl Verbindung als auch Trennung. Das Ich ist mit dem Selbst verbunden, es ist aber nicht das Selbst.)"

„Nicht nur Jungs Ansatz operiert demnach notwendigerweise mit diesen apriorischen Vorstellungen, sondern im Grunde jeder Interpretationsansatz, der sich in irgendeiner Form auf eine Art von Anfang (Urknall, Evolution, Schöpfung, Kultur, Bewusstsein, Sprache …) bezieht. Überspitzt könnte man in diesem Sinn von ‚Archetypen' sprechen : von rein formalen, apriorischen Grundstrukturen, die in zwei phantasmatischen Erscheinungsformen sämtlichen denkbaren Ontologien zugrunde liegen. In weiterer Folge bestimmen sie auch alle inhaltlichen Ausformungen in den unterschiedlichen Wissensfeldern – von der Religion bis hin zu den Kausalketten der Naturwissenschaft und den Signifikantenketten der Humanities ."

"In dieser Hinsicht lässt sich noch eine weitere Verbindung zur Ethik herstellen: Der Archetyp kann nämlich insofern auch als Archethyp (griech. arché und ethos), d.h. als ein ethisches Potenzial , gelesen werden, als er dem individuellen Bewusstsein die Möglichkeit einer lebenslangen Auseinandersetzung mit Inhalten ermöglicht, die die widersprüchliche Fülle menschlicher Selbstverhältnisse in ihrer Gesamtheit betreffen. Die Basis dieser Auseinandersetzung ist auch in diesem Fall das formale Zusammenwirken von Verbindung und Trennung, ohne das auch keine Therapie sinnvoll zu denken ist."

"In der analytischen Praxis strukturieren Archetypen das gesamte Erfahrungsfeld, die Selbst- und Fremdbeziehung, Übertragung und Gegenübertragung, Träume, Phantasien, Ideen usw. Im Theoretischen betreffen sie sämtliche antinomischen Selbstverhältnisse des Menschen, die historisch

gesehen erstmals – und damit wechseln wir von Jung ins Feld der Philosophie – in der aristotelischen Metaphysik rational zu erfassen versucht wurden. Diese Erste Wissenschaft galt lange als Königsdisziplin der Philosophie und gliedert sich in die vier Bereiche Sein, Natur, Menschliches und Göttliches. Sie ist die Grundmatrix, aus der sich im Lauf der Geschichte auch die modernen Wissenschaften in all ihren Aspekten herausgebildet haben. Die vier Bereiche sind deshalb als Selbstverhältnisse anzusprechen, weil der Mensch eine elementare Gegensätzlichkeit auf diese unterschiedlichen Felder projiziert: Er schreibt sich einerseits einen Anteil am Sein, an der Natur, am Geist usw. zu, er kann aber andererseits nicht ganz in dieser oder jener Verbindung aufgehen. Überall zeigt sich damit auch eine Differenz, eine Trennung. Es erweist sich auch, dass keiner dieser Bereiche für sich allein bestehen kann. Der Mensch ist z. B. nicht sinnvoll ohne Natur zu denken und umgekehrt ist es ebenso sinnlos, von einer Natur gänzlich ohne den Menschen auszugehen. Kurz gesagt: Die vier Bereiche verweisen in Form komplexer Verbindungs- und Trennungsverhältnisse aufeinander, ohne sich aufeinander reduzieren zu lassen."
"This leaves us with the archetype in itself, which is most commonly the subject of discussions of transmission. In my own work I have increasingly come to the conclusion that the archetype in itself is best understood in terms of fundamental organizing features of reality taken as a whole, and that it is therefore inadequate to separate out one domain—evolutionary biology, individual developmental psychology, etc.—as the space where transmission can be studied. […] . None of them, of course, involves a form of transmission in the sense of some means of inheritance or cultural transmission. They rely rather, on theorizing about the foundational characteristics of reality—they have distinctly metaphysical characteristics."

Transcendental conceptualizations in the broadest sense
"To give a modern, concrete, definition to the archetype seems to be the most urgent theoretical problem in analytical psychology for the time being. Regarding that the archetype is a timeless entity there may be some difficulty with that, especially when the archetype is expected to be easily detectable, visible neuronal structure, or a reaction that can be verified by a fairly simple mechanical method. The brain-mind dualism says: the mind is in the brain, but the brain is not the mind. There is something more, immaterial, in the middle, could it be the archetype?"

"Eine solche Vorstellung auf der Basis empirischer Beobachtung in der spezifischen Arbeit mit bildhaften Gestaltungen und Impulsen aus dem Unbewussten beruht daher auf der Auffassung einer prinzipiellen Einheit von Geist und Materie, die in ihrer Manifestation im Lebendigen jeweils Entsprechungen aufweisen im Wesen einer Zielgerichtetheit ihrer existentiellen Vorgänge. Sie dienen dem Erhalt des lebendigen Individuums auf der somatischen Ebene einer Instinktbefriedigung wie einer Sinnerfüllung in geistig-seelischer Dimension. Beide Elemente werden gedacht als lebensnotwendige Seinsvorgänge einer körperlich-geistigen Einheit."
"Jung saw the archetype as a psychosomatic concept, linking body and psyche; he felt that the psychic and the physical deserved an equal place, and did not believe that the psyche was merely a function of biological drives. He wrote, 'Psychic processes seem to be balances of energy flowing between spirit and instinct, though the question of whether a process is to be described as spiritual or as instinctual remains shrouded in darkness.' (CW 8, para 407). He likened this to two ends of the light spectrum; at one end there is the infra-red: the instinctual, physical end of the spectrum, at the other end there is the ultra-violet: the spiritual end of the spectrum."
"The archetypal structure is genetically transmitted. This means that even archetypal representations are to some extent genetically predestined. The archetypal structure embodies however only the possibility for representation; it must be fulfilled by fitting examples of collective and individual experiences. Traditionally, this part of transmission happens in the family and cultural tradition, but as this kind of transmission is too slow and too local, there probably are other kinds of transmissions as well. Synchronicity is probably one of them, and the spontaneously created patterns of order arising from the general state of chaos another. Transmission of archetypal representations is possible also through telepathy, spiritism, hypnosis, and like."

„Die Frage der Transmission archetypischer Inhalte ist offen. Eine rein soziologisch begründete Weitergabe überzeugt mich nicht, sie greift zu kurz und scheint mir dem Wunsch geschuldet, eine Anschlussfähigkeit an herrschende Paradigmen in der Wirksamkeitsbegründung psychotherapeutischer Maßnahmen zu rechtfertigen. Daneben sind auch biologische Faktoren der Transmission denkbar oder quantenphysikalische Phänomene. Allen Erklärungen gemeinsam ist jedoch ihr spekulativer und mit aktuellem Wissensstand noch nicht überzeugender Charakter. [...] Das Archetypenkonzept ist daher vor allem ein phänomenologisches, nicht mehr und nicht weniger. Dabei reicht ein phänomenologischer Ansatz für die Identifizierung solcher Vorgänge zunächst aus, auch wenn eine exakte Beschreibung der zugrundeliegenden Vorgänge nicht nur wünschenswert wäre, sondern eine Aufgabe für die Analytische Psychologie darstellt. [...] Unter den Konzeptionen, die versuchen eine Transmission archetypischer Inhalte zu erklären, erscheinen diejenigen am weitreichendsten, die von einer geistig-materiellen Einheit ausgehen im Sinne einer Komplementarität von Physik und Psychologie (vgl. C.G. Jung GW 8, §440, Walter-Verlag 1946). Diese sind in C. G. Jungs Arbeiten zum Synchronizitätsprinzip gemeinsam mit Wolfgang Pauli entworfen worden und haben zur Vorstellung einer Einheitswirklichkeit bzw. eines unus mundus geführt. Diese Grundlagen haben bis heute innerhalb der quantenphysikalischen Theorie wesentliche Erweiterungen erfahren, z.B. im Konzept eines duale-Aspekte Monismus (Atmanspacher, pers. Mitteilungen 2016).“

A category of argumentations which strongly emphasize the limitations to know anything about archetype, stress the quality of unknowing etc.

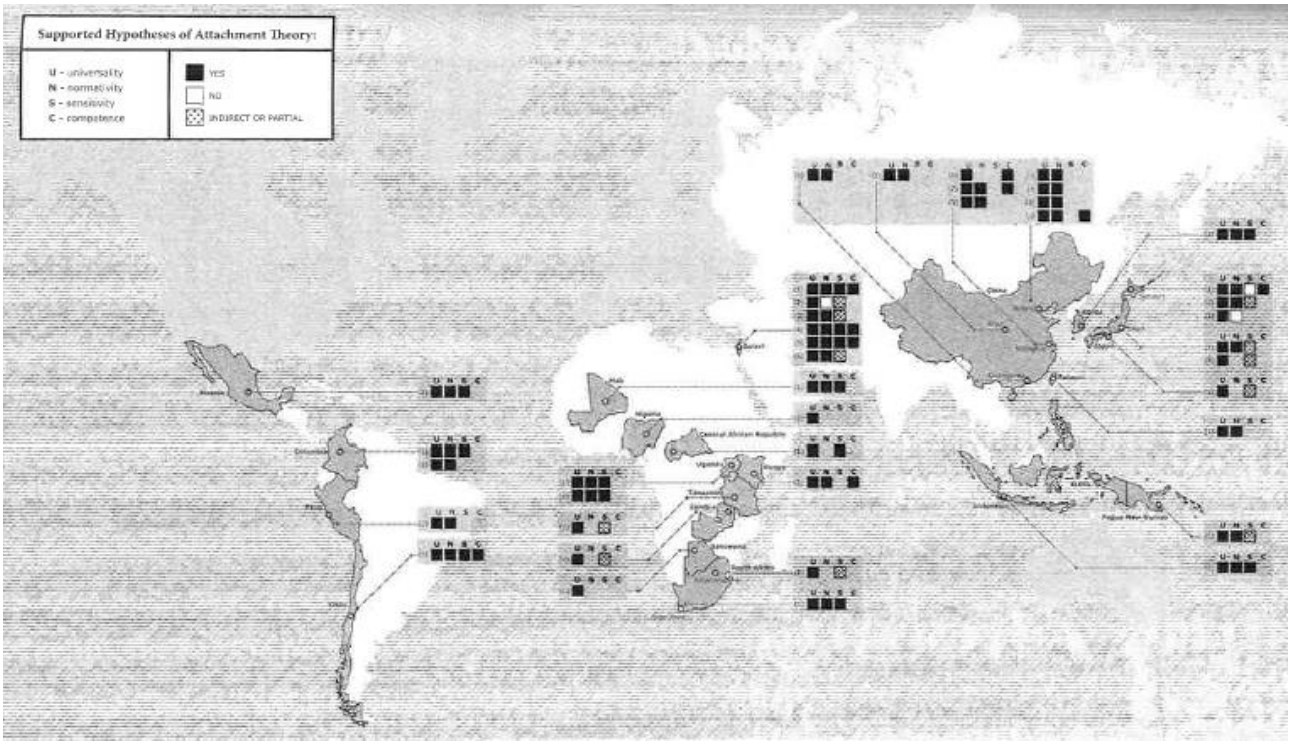
The archetype is unknown because it contains us. The idea that we know the archetype, or can capture its nature by a mechanical method is unrealistic. Validation of the archetype is comparable to validation of the existence of God. The essence of both concepts is unknown and will remain so, their existence can only be deduced from the experience.”

„The efforts to bring up what they are, must therefore be necessarily general and vague and again requiring interpretation: One cannot, therefore, observe an archetype, only an archetypal image.”

I would suggest that symbols do not originate in any simple form of cultural transmission, but rather arise through a process along the lines of what the philosopher Hans Blumenberg referred to as Work on Myth. Unlike the more metaphoric image, the symbol is the result of an attempt to understand or make sense of some state of affairs that is not immediately knowable, or perhaps ever knowable in its entirety. Symbols may then be culturally transmitted, but so long as they retain their significance as symbols they are transmitted as objects of hermeneutical investigation and elaboration, not as mere conventions.“)

“Eine Einteilung archetpyischer Manifestationen kann sich demnach zunächst nur an den Erscheinungsformen orientieren und lässt keine Rückschlüsse auf deren Ursprungsebene zu. Bildhafte Beschreibung, wie „Mutterarchetyp“ oder „Vaterarchetyp“, die sich herausgebildet und im klinischen Alltag bewährt haben, sind daher pragmatische Begriffe, die der Handhabung dienen, zugleich aber aufgrund ihrer Unschärfe einem objektivierbaren Zugriff kaum zugänglich sind. Eine solche Unschärfe ist aber Ausdruck des genannten qualitativen Charakters psychischer Phänomene, aufgrund deren subjektiver Eigenschaft vor allem Ähnlichkeiten, Verwandtschaften und Analogien gefunden werden können aber keine Deckungsgleichheit zu erwarten ist. Dementsprechend ist es auch nicht sinnvoll, archetypische Manifestationen allein nach ihren Formen beschreiben zu wollen. Dies würde ebenfalls dem Missverständnis entsprechen, dass ein quantifizierbarer Zugang zu diesem Phänomen möglich sei. Dieser ist jedoch unzureichend. Vielmehr ist es für die Einordnung eines Symbols als archetypische Manifestation im engeren Sinn notwendig, den subjektiven Faktor hinzuzunehmen. Die Qualität, mit der beispielsweise eine bildhafte Symbolgestaltung erlebt wird, ist daher ein entscheidendes Kriterium, das hinzu kommen muss, um eine archetypische Qualität als solche zu erklären.

2. Images/Graphs/Maps



Evidence for the universality of attachment patterns (Cassidy & Shaver 2019)

Maps and graphs illustrating the findings around the spread of Homo sapiens over the world/Out-of-Africa hypothesis (taken from Witzel 2012)

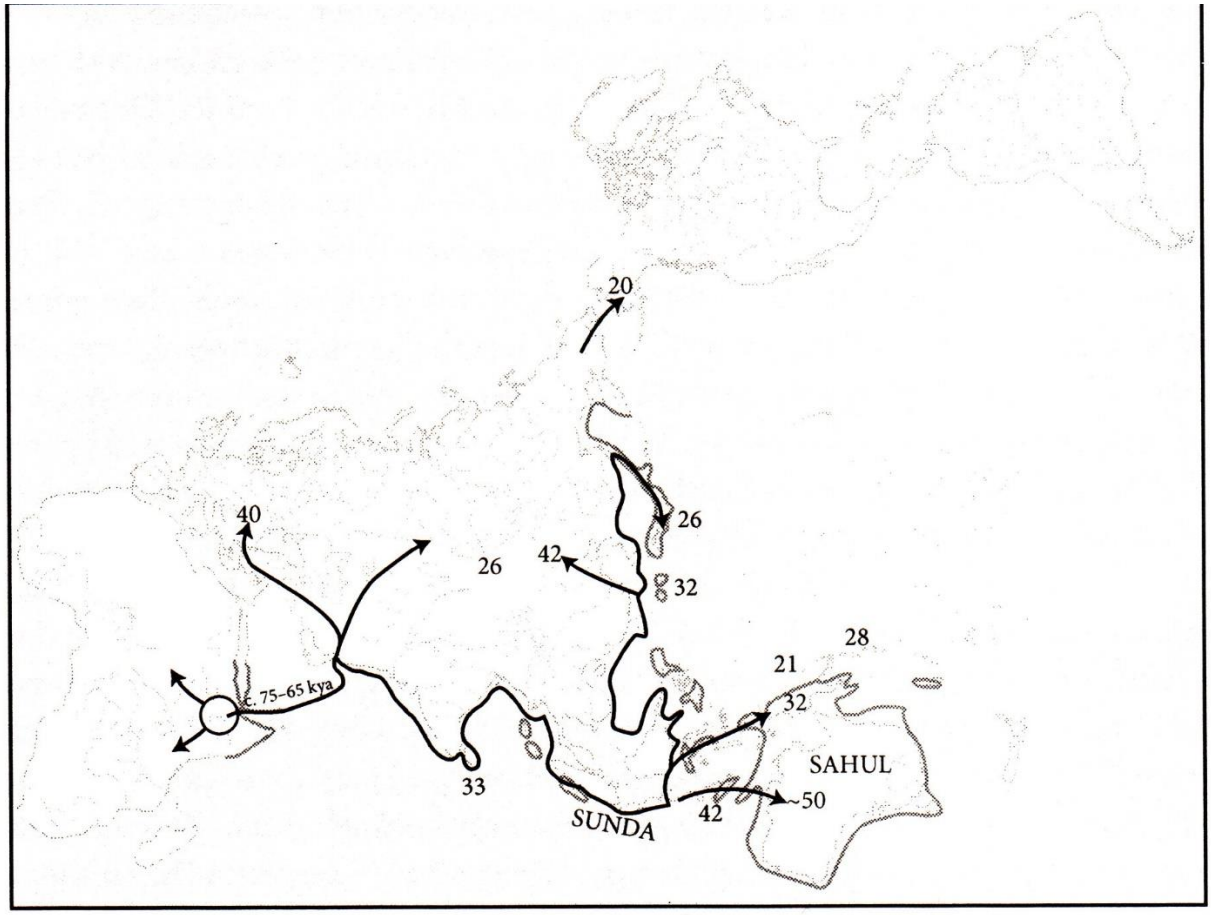


Figure 4.5. Spread of anatomically modern humans along the initial southern (coastal) route out of Africa, c. 75–65 kya. Only by c. 40 kya had anatomically modern humans moved farther north into the Eurasian inland during a warm period. For Eurasia/ Australia the coastlines of the colder period of c. 75–65 kya are indicated.

(Witzel 2012,p. 220)

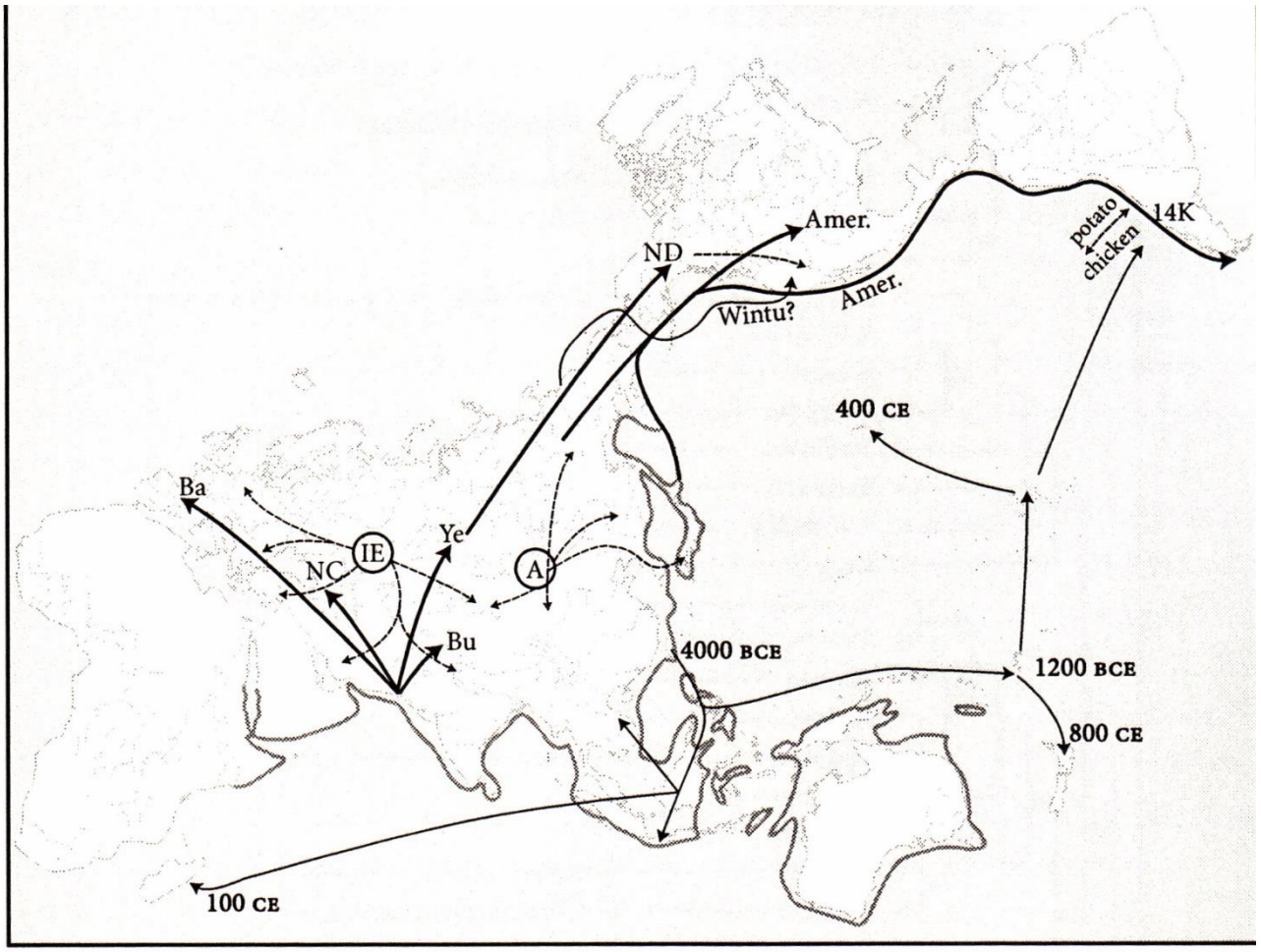


Figure 4.4. Some late movements of language families (general direction, not exact route, is indicated):

- Amerind: languages of North, Central, and South America
- Dene-Caucasian: Macro-Caucasian (Basque [Ba], North Caucasian [NC], Burushaski), Yeneseian (Ye: Ket), Na-Dene (ND: Athapascan, Apache, Navajo)
- Austronesian, c. 4000 BCE–100 CE
- Indo-European (IE), c. 3500 BCE
- Altaic: Turkic, Mongolic, Tunguse, Korean, Japanese

Witzel 2012, p.276

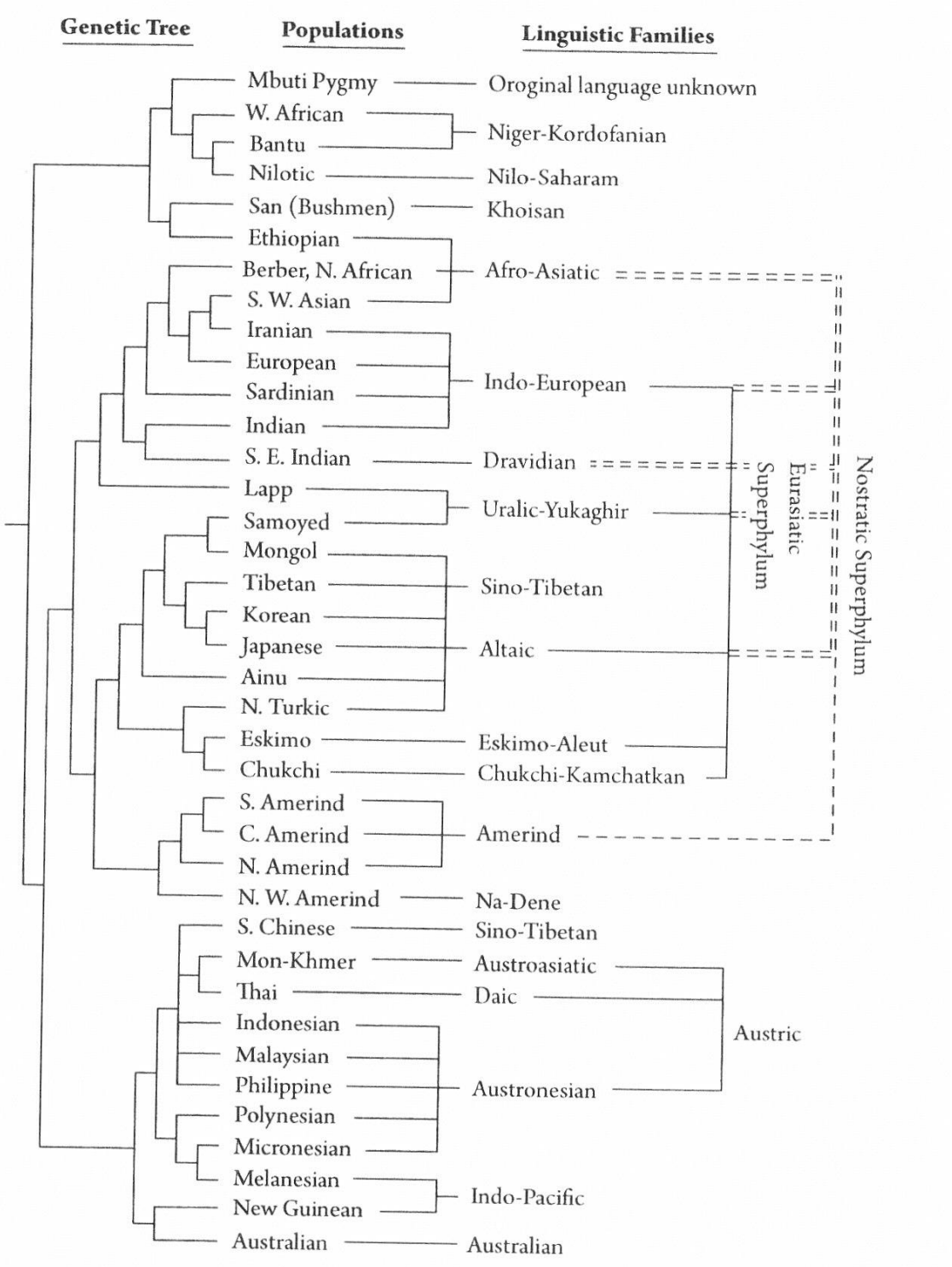
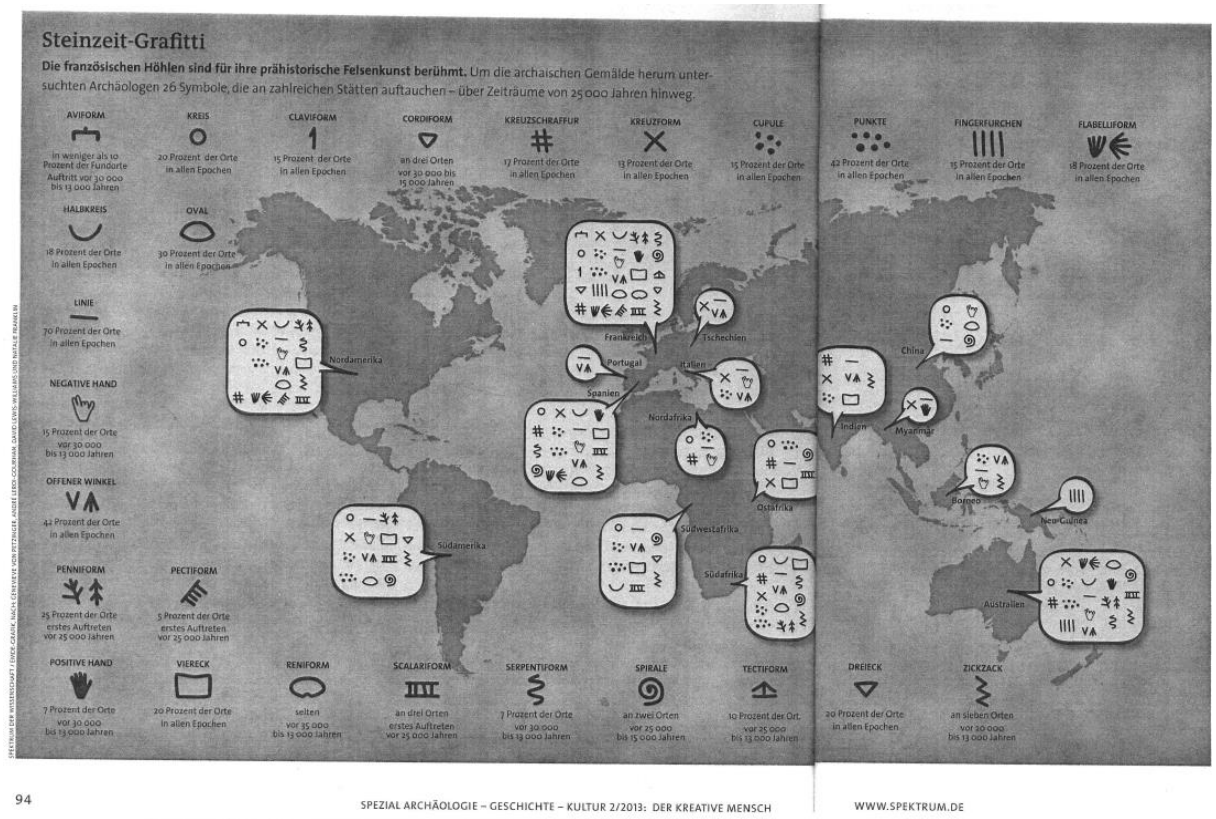
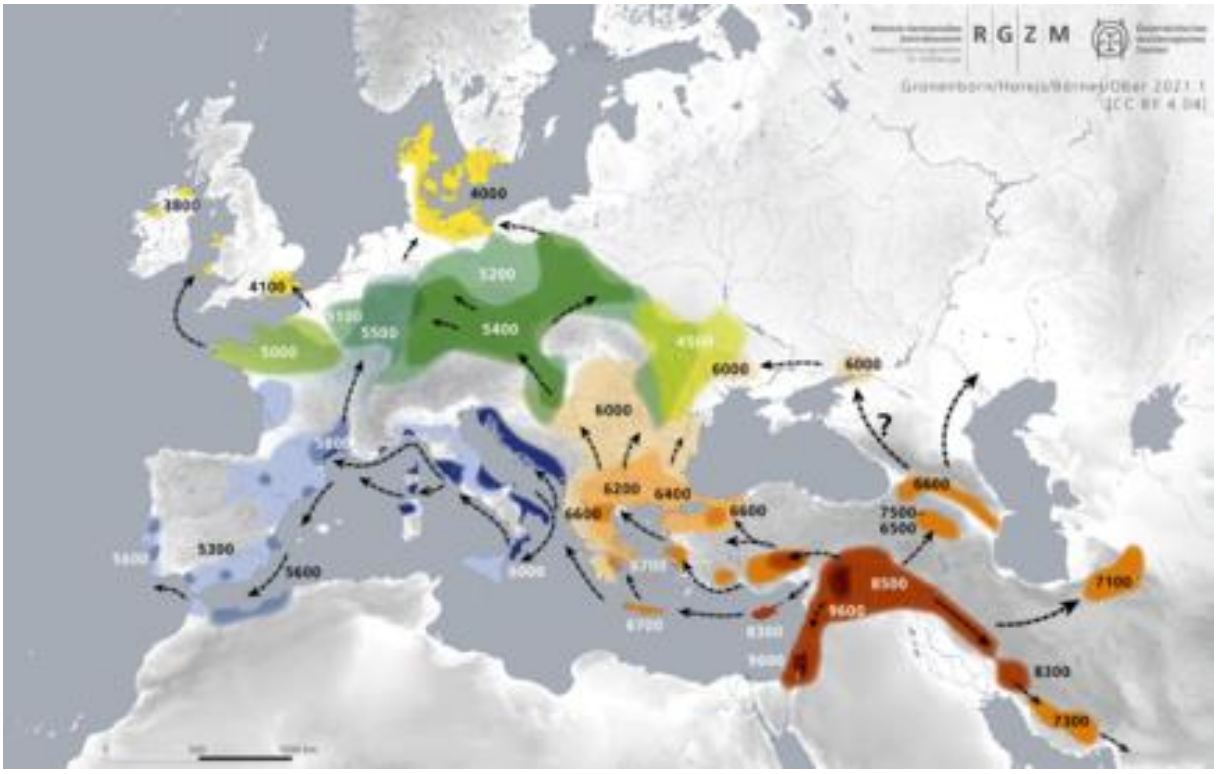


Figure 4.3. Language families before the European expansion (after Ruhlen 1987).

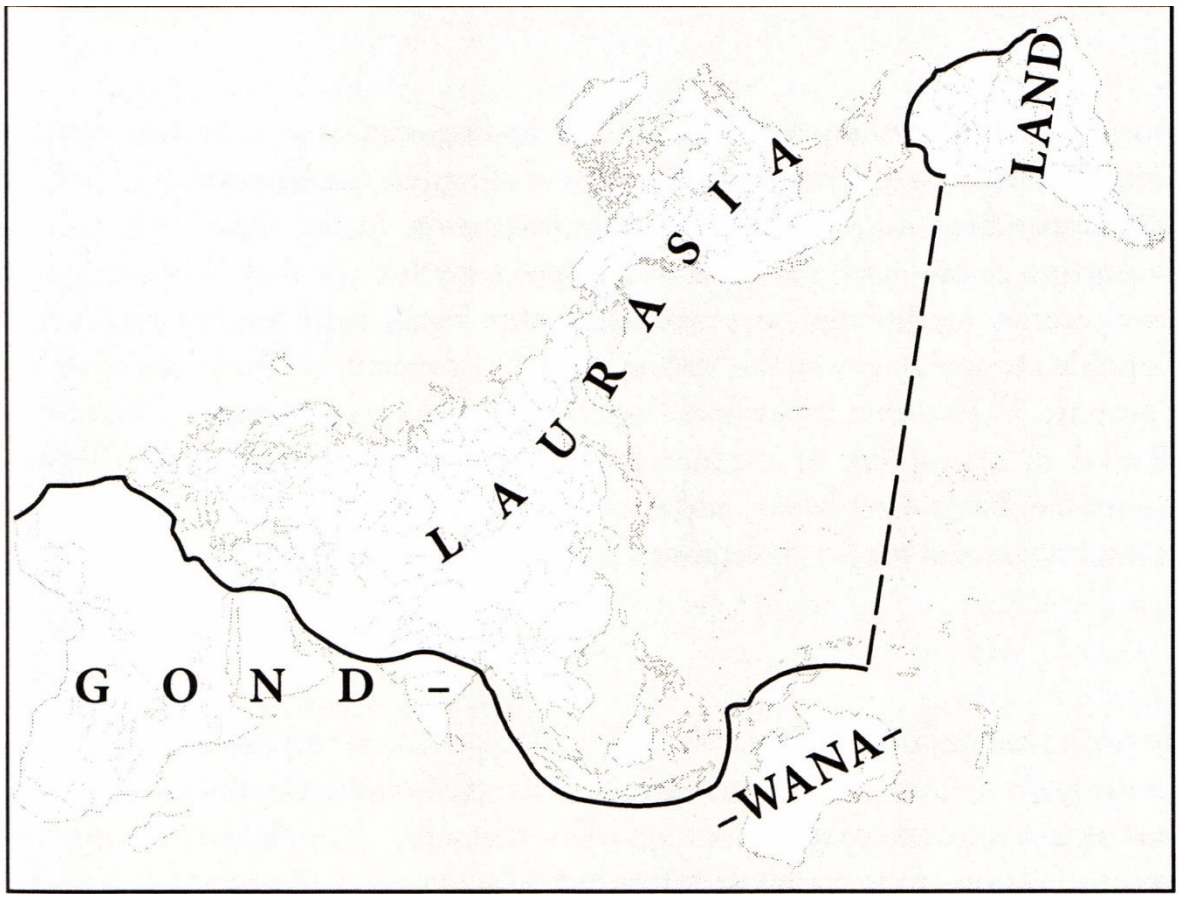
Witzel 2012, p.213

Paleolithic sign systems and symbols:





The diffusion of agriculture from the Fertile Crescent



Territories of Laurasian and Gondwana mythologies (Witzel 2012, p. 17)