# Science Technology and Society- Introduction Dr. Barnali Chetia

# Introduction (A View of Science)

- Let us start with a common picture of science. It is a picture that coincides more or less with where studies of science stood some 50 years ago, that still dominates popular understandings of science, and even serves as something like a mythic framework for scientists themselves.
- It is not perfectly uniform, but instead includes a number of distinct elements and some healthy debates.
- It can, however, serve as an excellent foil for the discussions that follow. At the margins of science, and discussed in the next section, is technology, typically seen as simply the application of science.

#### A View of Science

- Science is a formal activity that creates and accumulates knowledge by directly confronting the natural world. That is, science makes progress because of its systematic method, and because that method allows the natural world to play a role in the evaluation of theories.
- While the scientific method may be somewhat flexible and broad, and therefore may not level all differences
- it appears to have a certain consistency
- different scientists should perform an experiment similarly
- scientists should be able to agree on important questions and considerations
- and most importantly, different scientists considering the same evidence should accept and reject the same hypotheses
- \* The result is that scientists can agree on truths about the natural world.

# Philosophy of Science

- Two important philosophical approaches within the study of science have been logical positivism, initially associated with the Vienna Circle, and falsificationism, associated with Karl Popper.
- The Vienna Circle was a group of prominent philosophers and scientists who met in the early 1930s.
- The project of the Vienna Circle was to develop a philosophical understanding of science that would allow for an expansion of the scientific worldview particularly into the social sciences and into philosophy itself.

# Philosophy of Science

- That project was immensely successful, because **positivism** was widely absorbed by scientists and non-scientists interested in increasing the rigor of their work.
- Interesting conceptual problems, however, caused **positivism** to become increasingly focused on issues within the philosophy of science, losing sight of the more general project with which the movement began (see Friedman 1999; Richardson 1998).

#### Philosophy of Science

- Logical positivists maintain that the meaning of a scientific theory (and anything else) is exhausted by empirical and logical considerations of what would verify or falsify it.
- A scientific theory, then, is a condensed summary of possible observations. This is one way in which science can be seen as a formal activity: scientific theories are built up by the logical manipulation of observations (e.g. Ayer 1952 [1936]; Carnap 1952 [1928] ), and scientific progress consists in increasing the correctness, number, and range of potential observations that its theories indicate.

#### Logical Positivists

- For **logical positivists**, theories develop through a method that transforms individual data points into general statements.
- The process of creating scientific theories is therefore an inductive one.
- As a result, positivists tried to develop a logic of science that would make solid the inductive process of moving from individual facts to general claims. For example, scientists might be seen as creating frameworks in which it is possible to uniquely generalize from data.

<sup>\*</sup> Inductive-characterized by the inference of general laws from particular instances.

- Positivism has immediate problems.
- **First**, if meanings are reduced to observations, there are many "synonyms," in the form of theories or statements that look as though they should have very different meanings but do not make different predictions.
- For example, Copernican astronomy was initially designed to duplicate the (mostly successful) predictions of the earlier Ptolemaic system; in terms of observations, then, the two systems were roughly equivalent, but they clearly meant very different things, since one put the Earth in the center of the universe, and the other had the Earth spinning around the Sun.
- **Second,** many apparently meaningful claims are not systematically related to observations, because theories are often too abstract to be immediately cashed out in terms of data. Yet surely abstraction does not render a theory meaningless.
- Despite these problems and others, the positivist view of meaning taps into deep intuitions, and cannot be entirely dismissed.

• Even if one does not believe positivism's ideas about meaning, many people are attracted to the strict relationship that it posits between theories and observations.

- Even if theories are not mere summaries of observations, they should be absolutely supported by them. The justification we have for believing a scientific theory is based on that theory's solid connection to data.
- Another view, then, that is more loosely positivist, is that one can be purely logical means make predictions of observations from scientific theories, and that the best theories are ones that make all the right predictions. This view is perhaps best articulated as falsificationism, a position developed by (Sir) Karl Popper (e.g. 1963), a philosopher who was once on the edges of the Vienna Circle.

- For Popper, the key task of philosophy of science is to provide a demarcation criterion, a rule that would allow a line to be drawn between science and non-science.
- This he finds in a simple idea: genuine scientific theories are falsifiable, making risky predictions. The scientific attitude demands that if a theory's prediction is falsified the theory itself is to be treated as false.
- **Pseudo-sciences**, among which Popper includes **Marxism** and **Freudianism**, are insulated from criticism, able to explain and incorporate any fact. They do not make any firm predictions, but are capable of explaining, or explaining away, anything that comes up.

#### Important Terms

- Positivism is a philosophical system recognizing only that which can be scientifically verified or which is capable of logical or mathematical proof, and therefore rejecting metaphysics and theism.
- Metaphysics is the branch of philosophy that deals with the first principles of things, including abstract concepts such as being, knowing, identity, time, and space.
- Theism is broadly defined as the belief in the existence of a Supreme Being or deities.

#### Marxism

- **Marxism** is a body of doctrine developed by Karl Marx and, to a lesser extent, by Friedrich Engels in the mid-19th century.
- It originally consisted of three related ideas: a philosophical anthropology, a theory of history, and an economic and political program.
- There is also Marxism as it has been understood and practiced by the various socialist movements, particularly before 1914. Then there is Soviet Marxism as worked out by Vladimir Ilich Lenin and modified by Joseph Stalin, which under the name of Marxism-Leninism became the doctrine of the communist parties set up after the Russian Revolution (1917).

- Offshoots of this included Marxism as interpreted by the anti-Stalinist Leon Trotsky and his followers, Mao Zedong's Chinese variant of Marxism-Leninism, and various Marxisms in the developing world.
- There were also the post-World War II nondogmatic Marxisms that have modified Marx's thought with borrowings from modern philosophies, principally from those of Edmund Husserl and Martin Heidegger but also from Sigmund Freud and others.

# Karl Marx -Biography

- Karl Heinrich Marx was one of nine children born to Heinrich and Henrietta Marx in Trier, Prussia. His father was a successful lawyer who revered Kant and Voltaire, and was a passionate activist for Prussian reform.
- Although both parents were Jewish with rabbinical ancestry, Karl's father converted to Christianity in 1816 at the age of 35.
- This was likely a professional concession in response to an 1815 law banning Jews from high society. He was baptized a Lutheran, rather than a Catholic, which was the predominant faith in Trier, because he "equated Protestantism with intellectual freedom."
- When he was 6, Karl was baptized along with the other children, but his mother waited until 1825, after her father died.

- Marx was an average student. He was educated at home until he was 12 and spent five years, from 1830 to 1835, at the Jesuit high school in Trier, at that time known as the Friedrich-Wilhelm Gymnasium.
- The school's principal, a friend of Marx's father, was a liberal and a Kantian and was respected by the people of Rhineland but suspect to authorities.
- The school was under surveillance and was raided in 1832.

#### Education-Karl Marx

- In October of 1835, Marx began studying at the University of Bonn. It had a lively and rebellious culture, and Marx enthusiastically took part in student life.
- In his two semesters there, he was imprisoned for drunkenness and disturbing the peace, incurred debts and participated in a duel. At the end of the year, Marx's father insisted he enroll in the more serious University of Berlin.
- In Berlin, he studied law and philosophy and was introduced to the philosophy of G.W.F. Hegel, who had been a professor at Berlin until his death in 1831.
- Marx was not initially enamored with Hegel, but he soon became involved with the Young Hegelians, a radical group of students including Bruno Bauer and Ludwig Feuerbach, who criticized the political and religious establishments of the day.

- In 1836, as he was becoming more politically zealous, Marx was secretly engaged to Jenny von Westphalen, a sought-after woman from a respected family in Trier who was four years his senior. This, along with his increasing radicalism, caused his father angst.
- In a series of letters, Marx's father expressed concerns about what he saw as his son's "demons," and admonished him for not taking the responsibilities of marriage seriously enough, particularly when his wife-to-be came from a higher class.
- Marx did not settle down. He received his doctorate from the University of Jena in 1841, but his radical politics prevented him from procuring a teaching position.
- He began to work as a journalist, and in 1842, he became the editor of *Rheinische Zeitung*, a liberal newspaper in Cologne.
- Just one year later, the government ordered the newspaper's suppression, effective April 1, 1843. Marx resigned on March 18th. Three months later, in June, he finally married Jenny von Westphalen, and in October, they moved to Paris.

#### **Paris**

- Paris was the political heart of Europe in 1843. There, along with Arnold Ruge, Marx founded a political journal titled *Deutsch-Französische Jahrbücher* (German-French Annals).
- Only a single issue was published before philosophical differences between Marx and Ruge resulted in its demise, but in August of 1844, the journal brought Marx together with a contributor, Friedrich Engels, who would become his collaborator and lifelong friend.
- Together, the two began writing a criticism of the philosophy of Bruno Bauer, a Young Hegelian and former friend of Marx's. The result of Marx and Engels's first collaboration was published in 1845 as *The Holy Family*.
- Later that year, Marx moved to Belgium after being expelled from France while writing for another radical newspaper, *Vorwärts!*, which had strong ties to an organization that would later become the Communist League.

#### Brussels

- In Brussels, Marx was introduced to socialism by Moses Hess, and finally broke off from the philosophy of the Young Hegelians completely. While there, he wrote *The German Ideology*, in which he first developed his theory on historical materialism. Marx couldn't find a willing publisher, however, and *The German Ideology* -- along with *Theses on Feuerbach*, which was also written during this time -- were not published until after his death.
- At the beginning of 1846, Marx founded a Communist Correspondence Committee in an attempt to link socialists from around Europe. Inspired by his ideas, socialists in England held a conference and formed the Communist League, and in 1847 at a Central Committee meeting in London, the organization asked Marx and Engels to write Manifest der Kommunistischen Partei (Manifesto of the Communist Party).
- The Communist Manifesto, as this work is commonly known, was published in 1848, and shortly after, in 1849, Marx was expelled from Belgium. He went to France, anticipating a socialist revolution, but was deported from there as well. Prussia refused to renaturalize him, so Marx moved to London. Although Britain denied him citizenship, he remained in London until his death.

#### London

• In London, Marx helped found the German Workers' Educational Society, as well as a new headquarters for the Communist League. He continued to work as a journalist, including a 10-year stint as a correspondent for the *New York Daily Tribune* from 1852 to 1862, but he never earned a living wage and was largely supported by Engels.

#### Death

- Marx died of pleurisy in London on March 14, 1883. While his original grave had only a nondescript stone, the Communist Party of Great Britain erected a large tombstone, including a bust of Marx, in 1954.
- The stone is etched with the last line of *The Communist Manifesto* ("Workers of all lands unite"), as well as a quote from the *Theses on Feuerbach*.

<sup>\*</sup> Pleurisy-inflammation of the membranes that surround the lungs and line the chest cavity (pleurae)

#### The Thought Of Karl Marx

- The written work of Marx cannot be reduced to a philosophy, much less to a philosophical system. The whole of his work is a radical critique of philosophy, especially of G.W.F. Hegel's idealist system and of the philosophies of the left and right post-Hegelians.
- It is not, however, a mere denial of those philosophies. Marx declared that philosophy must become reality.
- One could no longer be content with interpreting the world
- one must be concerned with transforming it, which meant transforming both the world itself and human consciousness of it.

• This required a critique of experience together with a critique of ideas. In fact, Marx believed that all knowledge involves a critique of ideas.

• Marx was not an empiricist. Rather, his work teems with concepts (appropriation, alienation, praxis, creative labour and so on) that he had inherited from earlier philosophers and economists, including Hegel, Johann Fichte, Immanuel Kant, Adam Smith, David Ricardo, and John Stuart Mill.

<sup>\*</sup> Empiricist-theory that all knowledge is based on experience derived from the senses.

# Meanings of Marxian Concepts

- Appropriation (from Latin *appropriare*, "to make one's own") is a Marxist origin concept borrowed from Hegel by Marx, well developed by philosophers such as Henri Lefebvre psychologists such as Carl Graumann and environmental and urban psychologists, such as Perla Korosec-Serfaty and Enric Pol, between many others such as Vygotsky. Indeed, Vygotsky's work was influenced by Marx and it is probably one of the most useful directions to apply some Marxist ideas to psychology.
- For Vygotsky (1978), the emergence of higher mental functions (verbal thought, focussed attention, deliberate memory, and so on) unique to humans, culturally mediated, and passed on by teaching is characterized by internalization. It can be defined as "the conversion of social relations into mental functions" (Vygotsky, 1981, p. 165). Individual development cannot be understood without reference to the social and cultural context within which it is embedded.

- "Karl Marx" main work on alienation is the 1844 manuscript, also known as Paris manuscripts. Alienation is the philosophical term, which was borrowed by Karl Marx from "Hegel" philosophy.
- However, Marx took it beyond the level of Hegel philosophy, he adopted it to serve his own aims. He adopted the term from philosophy and transformed it in to critical sociological term.
- The term Alienation means, feeling stranger or eliminated. According to Marx, history of mankind has two aspects; it is the history of growing control of human beings over nature, and history of increasing alienation of mankind.
- When individuals in a society are alienated, they feel powerless, isolated and they think that, social world is meaningless. They consider social institutions oppressive, and beyond their control. Marx believed that, all the institutions (religion, state and economy) in capitalist society were marked by the condition of alienation. Alienation is hostile towards mankind in every institution of the world, in which it entangles.

#### Example (Alienation)

- Economics alienation under capitalism means that, man is alienated in workplace on daily basis where he/she earn their livelihood.
- Marx has explained **four types of alienation in a workplace** in modern capitalist system. Which are as follows-
- -workers are alienated from, product, labor process, fellow workers and themselves.

- For example, let us compare a clock maker who is specialized in making beautiful clocks, with a man who works in a pin factory, whose work is boring and repetitive who performs all day and every day same task.
- The man working in pin factory may not even realize that, in what way his task contribute to the final product, he has been alienated from his product. On the other hand, the clock smith loves his job because he recognize his work and the outcome of his work. The man working in factory feel alienated because the whole productive process has been robbed from him, he does not recognize his own creation. He becomes robot, kind of cog in a machine. The division of labor in modern capitalist system has also detached the ties among the workers. They cannot share secret of their work and be proud of their accomplishment because they don't even know the complete proses of making the product and do not own the product. As a result workers become alienated from their coworkers, they do not understand that, they are collectively responsible for the finished goods which leave the factory. They don't know one another, they become strangers. They do not have sense of solidarity with one another and loyalty with factory. The worst part is the worker become alienated from himself because before realizing his potential, he is involved in the process of modern capitalist division of labour.

- A Greek term, literally meaning "action", adopted by Karl Marx to emphasize the importance of action in relation to thinking. **Praxis** is accepted as a model in liberation theology which has considerable impact within Latin America in the late 1960s.
- Marx uses the term "praxis" to refer to the free, universal, creative and selfcreative activity through which man creates and changes his historical world and himself.
- Praxis is an activity unique to man, which distinguishes him from all other beings. The concept appears in two of Marx's early works: the Economic and Philosophical Manuscripts of 1844 and the Theses on Feuerbach (1845).
- In the former work, Marx contrasts the free, conscious productive activity of human beings with the unconscious, compulsive production of animals. He also affirms the primacy of praxis over theory, claiming that theoretical contradictions can only be resolved through practical activity.

- Creative labour is the labour that human beings express that allow them to realize their humanity. Marx addresses the issue in "Economic and Philosophical Manuscripts of 1844." It is meant to be the absence of alienation.
- Creative labour is often characterized as hard to measure and manage. As 'immaterial labour', it breaches the working day's boundaries and produces uncertain outputs.

# Sigmund Freud

- Sigmund Freud may justly be called the most influential intellectual legislator of his age.
- His creation of psychoanalysis was at once a theory of the human psyche, a therapy for the relief of its ills, and an optic for the interpretation of culture and society. Despite repeated criticisms, attempted refutations, and qualifications of Freud's work, its spell remained powerful well after his death and in fields far removed from psychology as it is narrowly defined.

#### **Early Life And Training**

- Freud's father, Jakob, was a Jewish wool merchant who had been married once before he wed the boy's mother, Amalie Nathansohn.
- The father, 40 years old at Freud's birth, seems to have been a relatively remote and authoritarian figure, while his mother appears to have been more nurturant and emotionally available.
- Although Freud had two older half-brothers, his strongest if also most ambivalent attachment seems to have been to a nephew, John, one year his senior, who provided the model of intimate friend and hated rival that Freud reproduced often at later stages of his life.

- In 1859 the Freud family was compelled for economic reasons to move to Leipzig and then a year after to Vienna, where Freud remained until the Nazi annexation of Austria 78 years later.
- Despite Freud's dislike of the imperial city, in part because of its citizens' frequent anti-Semitism, psychoanalysis reflected in significant ways the cultural and political context out of which it emerged.
- For example, Freud's sensitivity to the vulnerability of paternal authority within the psyche may well have been stimulated by the decline in power suffered by his father's generation, often liberal rationalists, in the Habsburg empire. So too his interest in the theme of the seduction of daughters was rooted in complicated ways in the context of Viennese attitudes toward female sexuality.

- In 1873 Freud was graduated from the Sperl Gymnasium and, apparently inspired by a public reading of an essay by Goethe on nature, turned to medicine as a career. At the University of Vienna he worked with one of the leading physiologists of his day, Ernst von Brücke, an exponent of the materialist, antivitalist science of Hermann von Helmholtz.
- In 1882 he entered the General Hospital in Vienna as a clinical assistant to train with the psychiatrist Theodor Meynert and the professor of internal medicine Hermann Nothnagel.
- In 1885 Freud was appointed lecturer in neuropathology, having concluded important research on the brain's medulla. At this time he also developed an interest in the pharmaceutical benefits of cocaine, which he pursued for several years.
- Although some beneficial results were found in eye surgery, which have been credited to Freud's friend Carl Koller, the general outcome was disastrous. Not only did Freud's advocacy lead to a mortal addiction in another close friend, Ernst Fleischl von Marxow, but it also tarnished his medical reputation for a time. Whether or not one interprets this episode in terms that call into question Freud's prudence as a scientist, it was of a piece with his lifelong willingness to attempt bold solutions to relieve human suffering.

- Freud's scientific training remained of cardinal importance in his work, or at least in his own conception of it.
- In such writings as his "Entwurf einer Psychologie" (written 1895, published 1950; "Project for a Scientific Psychology") he affirmed his intention to find a physiological and materialist basis for his theories of the psyche.
- Here a mechanistic neurophysiological model vied with a more organismic, phylogenetic one in ways that demonstrate Freud's complicated debt to the science of his day.

- In late 1885 Freud left Vienna to continue his studies of neuropathology at the Salpêtrière clinic in Paris, where he worked under the guidance of Jean-Martin Charcot.
- His 19 weeks in the French capital proved a turning point in his career, for Charcot's work with patients classified as "hysterics" introduced Freud to the possibility that psychological disorders might have their source in the mind rather than the brain.
- Charcot's demonstration of a link between hysterical symptoms, such as paralysis of a limb, and hypnotic suggestion implied the power of mental states rather than nerves in the etiology of disease.
- Although Freud was soon to abandon his faith in hypnosis, he returned to Vienna in February 1886 with the seed of his revolutionary psychological method implanted.

- Several months after his return Freud married Martha Bernays, the daughter of a prominent Jewish family whose ancestors included a chief rabbi of Hamburg and Heinrich Heine.
- She was to bear six children, one of whom, Anna Freud, was to become a distinguished psychoanalyst in her own right.
- Although the glowing picture of their marriage painted by Ernest Jones in his study *The Life and Works of Sigmund Freud* (1953–57) has been nuanced by later scholars, it is clear that Martha Bernays Freud was a deeply sustaining presence during her husband's tumultuous career.

- Shortly after getting married Freud began his closest friendship, with the Berlin physician Wilhelm Fliess, whose role in the development of psychoanalysis has occasioned widespread debate.
- Throughout the 15 years of their intimacy Fliess provided Freud an invaluable interlocutor for his most daring ideas.
- Freud's belief in human bisexuality, his idea of erotogenic zones on the body, and perhaps even his imputation of sexuality to infants may well have been stimulated by their friendship.

- A somewhat less controversial influence arose from the partnership Freud began with the physician Josef Breuer after his return from Paris. Freud turned to a clinical practice in neuropsychology, and the office he established at Berggasse 19 was to remain his consulting room for almost half a century.
- Before their collaboration began, during the early 1880s, Breuer had treated a patient named Bertha Pappenheim—or "Anna O.," as she became known in the literature—who was suffering from a variety of hysterical symptoms.
- Rather than using hypnotic suggestion, as had Charcot, Breuer allowed her to lapse into a state resembling autohypnosis, in which she would talk about the initial manifestations of her symptoms. To Breuer's surprise, the very act of verbalization seemed to provide some relief from their hold over her (although later scholarship has cast doubt on its permanence). "The talking cure" or "chimney sweeping," as Breuer and Anna O., respectively, called it, seemed to act cathartically to produce an abreaction, or discharge, of the pent-up emotional blockage at the root of the pathological behaviour.

### **Freudianism**

- The definition of **Freudianism** lays out the basic ideas of Sigmund Freud, the recognized father of the field of psychoanalysis.
- The historic importance and world impact of these ideas are huge. The basic philosophical difference that Freud introduced to psychology was the notion of what drives human nature; Freud's big idea emphasized the importance of unconscious forces in determining beliefs, decisions and actions in human beings.

- Before Freudianism, psychology primarily concerned itself with cognition, rational thought and the conscious intellect, which were deemed to be the dominant factors in mental health.
- Freud turned this upside down, arguing that mental health was subject to "subconscious" desires, urges, instincts and various inhibitions.
- He postulated that mental illness was traceable to repressed memories of traumatic incidents, usually from childhood, and usually of a sexual nature, which resulted in neurotic behavior and various manifestations of mental illness.
- Mentally ill people are required, by the very definition of Freudianism, to "discover" these repressed, hidden causes in order to cure their mental illness.

### The interpretation of dreams

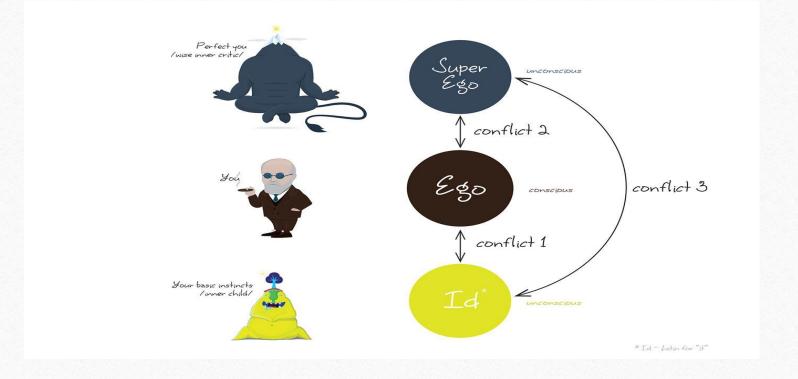
- In what many commentators consider his master work, *Die Traumdeutung* (published in 1899, but given the date of the dawning century to emphasize its epochal character; *The Interpretation of Dreams*), he presented his findings.
- Interspersing evidence from his own dreams with evidence from those recounted in his clinical practice, Freud contended that dreams played a fundamental role in the psychic economy.
- The mind's energy—which Freud called libido and identified principally, but not exclusively, with the sexual drive—was a fluid and malleable force capable of excessive and disturbing power. Needing to be discharged to ensure pleasure and prevent pain, it sought whatever outlet it might find.
- If denied the gratification provided by direct motor action, libidinal energy could seek its release through mental channels. Or, in the language of *The Interpretation of Dreams*, a wish can be satisfied by an imaginary wish fulfillment. All dreams, Freud claimed, even nightmares manifesting apparent anxiety, are the fulfillment of such wishes.

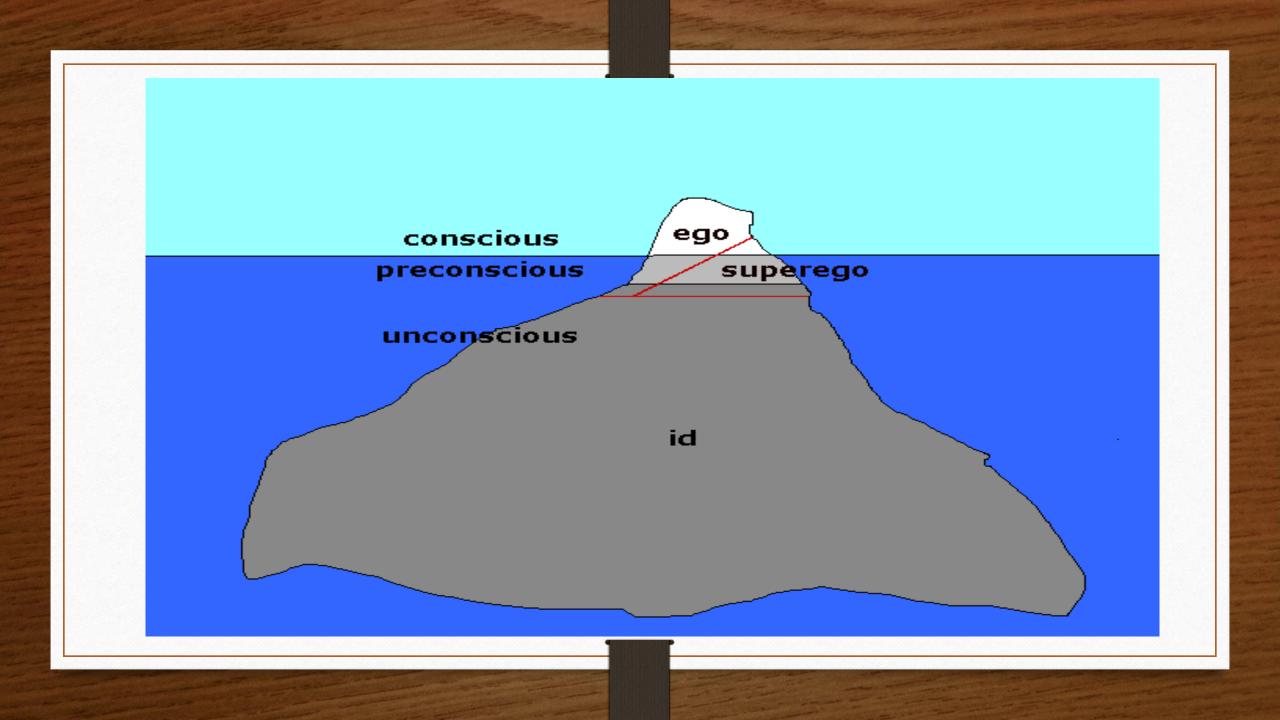
- More precisely, dreams are the disguised expression of wish fulfillments. Like neurotic symptoms, they are the effects of compromises in the psyche between desires and prohibitions in conflict with their realization.
- Although sleep can relax the power of the mind's diurnal censorship of forbidden desires, such censorship, nonetheless, persists in part during nocturnal existence.
- Dreams, therefore, have to be decoded to be understood, and not merely because they are actually forbidden desires experienced in distorted fashion. For dreams undergo further revision in the process of being recounted to the analyst.

- The Interpretation of Dreams provides a hermeneutic for the unmasking of the dream's disguise, or dreamwork, as Freud called it.
- The manifest content of the dream, that which is remembered and reported, must be understood as veiling a latent meaning.
- Dreams defy logical entailment and narrative coherence, for they intermingle the residues of immediate daily experience with the deepest, often most infantile wishes.
- Yet they can be ultimately decoded by attending to four basic activities of the dreamwork and reversing their mystifying effect.

- The first of these activities, condensation, operates through the fusion of several different elements into one. As such, it exemplifies one of the key operations of psychic life, which Freud called overdetermination.
- No direct correspondence between a simple manifest content and its multidimensional latent counterpart can be assumed. The second activity of the dreamwork, displacement, refers to the decentring of dream thoughts, so that the most urgent wish is often obliquely or marginally represented on the manifest level.
- Displacement also means the associative substitution of one signifier in the dream for another, say, the king for one's father. The third activity Freud called representation, by which he meant the transformation of thoughts into images.
- Decoding a dream thus means translating such visual representations back into intersubjectively available language through free association. The final function of the dreamwork is secondary revision, which provides some order and intelligibility to the dream by supplementing its content with narrative coherence. The process of dream interpretation thus reverses the direction of the dreamwork, moving from the level of the conscious recounting of the dream through the preconscious back beyond censorship into the unconscious itself.

# Id Ego Super Ego



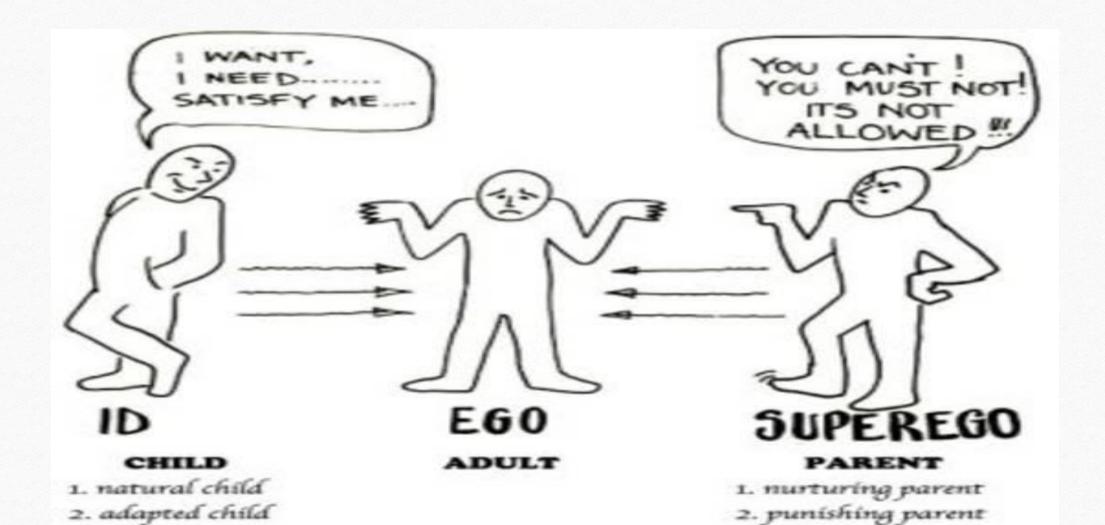


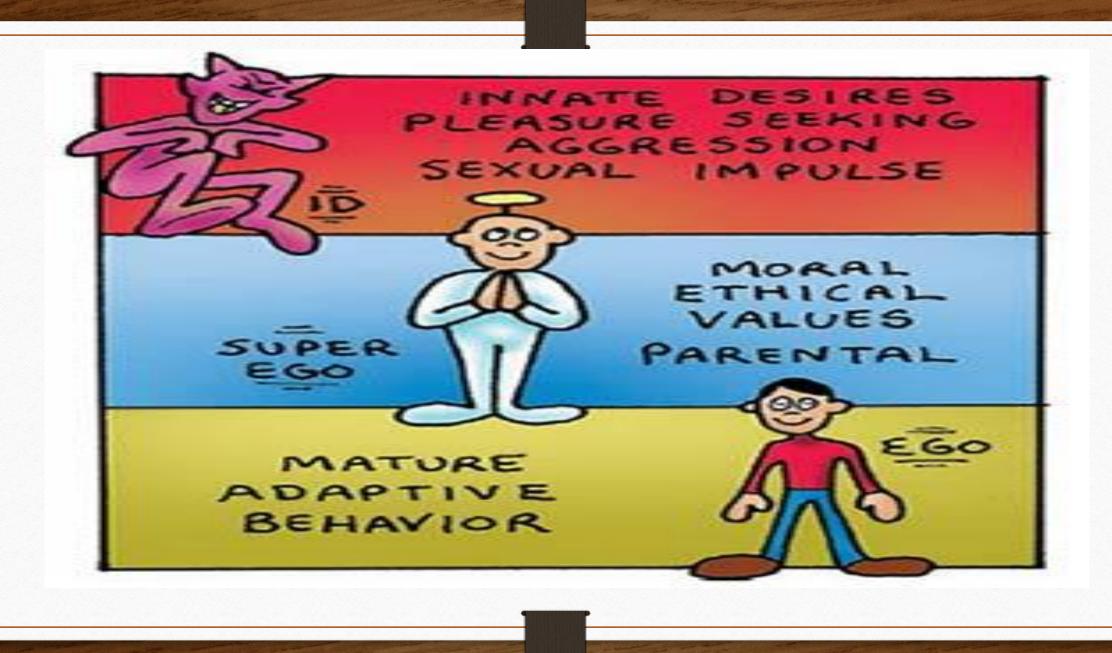
#### Freud's leeberg Theory



Unconscious







### Personality Theory

• Freud's personality theory (1923) saw the psyche structured into three parts (i.e., tripartite), the **id**, **ego** and **superego**, all developing at different stages in our lives. These are systems, not parts of the brain, or in any way physical.

• According to Freud psychoanalytic theory, the **id is the primitive** and instinctual part of the mind that contains sexual and aggressive drives and hidden memories, the **super-ego operates as a moral conscience**, and **the ego is the realistic part** that mediates between the desires of the id and the super-ego.

- The **id** is the primitive and instinctive component of personality. It consists of all the inherited (i.e., biological) components of personality present at birth, including the sex (life) instinct Eros (which contains the libido), and the aggressive (death) instinct Thanatos.
- The id is the impulsive (and unconscious) part of our psyche which responds directly and immediately to basic urges, needs, and desires. The personality of the newborn child is all id and only later does it develop an ego and super-ego.
- The id remains infantile in its function throughout a person's life and does not change with time or experience, as it is not in touch with the external world. The id is not affected by reality, logic or the everyday world, as it operates within the unconscious part of the mind.

- The id operates on the pleasure principle (Freud, 1920) which is the idea that every wishful impulse should be satisfied immediately, regardless of the consequences. When the id achieves its demands, we experience pleasure when it is denied we experience 'unpleasure' or tension.
- The id engages in primary process thinking, which is primitive, illogical, irrational, and fantasy oriented. This form of process thinking has no comprehension of objective reality, and is selfish and wishful in nature.

## Ego

• The ego is 'that part of the id which has been modified by the direct influence of the external world.'

(Freud, 1923, p. 25)

• The ego develops to mediate between the unrealistic id and the external real world. It is the decision-making component of personality. Ideally, the ego works by reason, whereas the id is chaotic and unreasonable.

- The ego operates according to the reality principle, working out realistic ways of satisfying the id's demands, often compromising or postponing satisfaction to avoid negative consequences of society. The ego considers social realities and norms, etiquette and rules in deciding how to behave.
- Like the id, the ego seeks pleasure (i.e., tension reduction) and avoids pain, but unlike the id, the ego is concerned with devising a realistic strategy to obtain pleasure. The ego has no concept of right or wrong; something is good simply if it achieves its end of satisfying without causing harm to itself or the id.
- Often the ego is weak relative to the headstrong id, and the best the ego can do is stay on, pointing the id in the right direction and claiming some credit at the end as if the action were its own.

• Freud made the analogy of the id being a horse while the ego is the rider. The ego is 'like a man on horseback, who has to hold in check the superior strength of the horse.'

(Freud, 1923, p. 15)

If the ego fails in its attempt to use the reality principle, and anxiety is experienced, unconscious defense mechanisms are employed, to help ward off unpleasant feelings (i.e., anxiety) or make good things feel better for the individual.

The ego engages in secondary process thinking, which is rational, realistic, and orientated towards problem-solving. If a plan of action does not work, then it is thought through again until a solution is found. This is known as reality testing and enables the person to control their impulses and demonstrate self-control, via mastery of the ego.

## Superego

- The superego incorporates the values and morals of society which are learned from one's parents and others. It develops around the age of 3 5 years during the phallic stage of psychosexual development.
- The superego's function is to control the id's impulses, especially those which society forbids, such as sex and aggression. It also has the function of persuading the ego to turn to moralistic goals rather than simply realistic ones and to strive for perfection.

- The superego consists of two systems: **The conscience and the ideal self.** The conscience can punish the ego through causing feelings of guilt. For example, if the ego gives in to the id's demands, the superego may make the person feel bad through guilt.
- The ideal self (or ego-ideal) is an imaginary picture of how you ought to be, and represents career aspirations, how to treat other people, and how to behave as a member of society.

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- The ideal self (or ego-ideal) is an imaginary picture of how you ought to be, and represents career aspirations, how to treat other people, and how to behave as a member of society.