

*The false subtlety of the four syllogistic figures
demonstrated by M. Immanuel Kant (1762)*

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§I. General concept of the nature of syllogisms^{at}

To compare something as a characteristic mark^{b2} with a thing is *to judge*. The thing itself is the subject; the characteristic mark is the predicate. The comparison is expressed by means of the copula *is* or *are*.³ When used absolutely,^c the copula designates the predicate as a characteristic mark of the subject. If, however, it is combined with the sign for negation, the copula then signifies that the predicate is a characteristic mark which is incompatible with the subject.^d In the former case, the judgement is affirmative, whereas in the latter case the judgement is negative. Obviously, in calling the predicate a characteristic mark, we are not saying that it is a characteristic mark of the subject, for that is only the case with affirmative judgements. What we are saying is that the predicate is regarded as a characteristic mark of some thing or other, though, in the case of a negative judgement, it contradicts^e the subject of the judgement. Thus, let it be a *mind*^f of which I am thinking; and let *compound*^g be the characteristic mark of something or other. The judgement: *A mind is not compound* represents this characteristic mark as conflicting with the thing itself.

That which is a characteristic mark of a characteristic mark of a thing is called a *mediate*^h characteristic mark of that thing. Thus, *necessary* is an immediateⁱ characteristic mark of God, whereas *immutable* is a characteristic mark of what is necessary, and a mediate characteristic mark of God. Obviously, the immediate characteristic mark occupies the position of an *intermediate characteristic mark* (*nota intermedia*) between the remote^j characteristic mark and the thing itself, for it is only by its means that the remote characteristic mark is compared with the thing itself. But it is also possible to compare a characteristic mark with a thing negatively, by means of an intermediate characteristic mark, namely, by recognising that something conflicts with the immediate characteristic mark of the thing. *Contingent*,^k as a characteristic mark, conflicts with what is *necessary*; but

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^a *Vernunftschlüsse* / Abbot (hereafter A): ratiocination / Ferrari (hereafter F) & Zac (hereafter Z): *syllogismes*.

^b *Merkmal* / A: mark (or attribute) / F & Z: *caractère*. ^c *schlechthin*.

^d *dem Subject entgegen gesetztes Merkmal*. ^e *widerspricht*. ^f *Geist*. ^g *Zusammengesetzt*.

^h *mittelbares*. ⁱ *unmittelbares*. ^j *entfernte*. ^k *zufällig*.

necessary is a characteristic mark of God; thus, by means of an intermediate characteristic mark, one recognises that being contingent contradicts God.

I am now going to set up my real definition⁴ of the syllogism. *Every judgement which is made by means of a mediate characteristic mark is a syllogism.*⁵ In other words, a syllogism is the comparison of a characteristic mark with a thing by means of an intermediate characteristic mark. This intermediate characteristic mark (*nota intermedia*) in a syllogism is also normally called the *middle term*^m (*terminus medius*); what the other terms are is sufficiently well known.

In order clearly to recognise the relation of the characteristic mark to the thing in the judgement: *the human soul is a mind*, I employ the intermediate characteristic mark *rational*, so that, by its means, I regard *being a mind* as a mediate characteristic mark of the human soul. In this case, three judgements must necessarily occur:

1. Being a mind is a characteristic mark of that which is rational;
2. Rational is a characteristic mark of the human soul;
3. Being a mind is a characteristic mark of the human soul.

Three judgements are necessary because the comparison of a remote characteristic mark with the thing itself is only possible by means of these three operations.ⁿ

Cast in the form of judgements, the three operations would run: all that is rational is a mind; the soul of man is rational; therefore, the soul of man is a mind. Now, this is an affirmative syllogism. As for negative syllogisms: it is equally obvious that, since I do not always recognise the conflict of a predicate and a subject with sufficient clarity, I must, whenever possible, employ something to help me in order to facilitate my understanding by means of an intermediate characteristic mark. Suppose that I am presented with the negative judgement: the duration of God^o cannot be measured by any time. And suppose that I do not find that this predicate, compared immediately in this way with the subject, furnishes me with a sufficiently clear idea^p of the conflict. In such a case, I shall make use of a characteristic mark which I can imagine immediately in the subject, and compare the predicate with it and, by its means, with the thing itself. *Being measurable by time* conflicts with whatever is *immutable*; but *immutable* is a characteristic mark of *God*; therefore *etc.* Expressed formally, this would run: nothing immutable is measurable by time; the duration of God is immutable; therefore, *etc.*

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¹ *Realerklärung* / A: real definition / F: *définition réelle* / Z: *explication réelle*.

^m *der mittlere Hauptbegriff.* ⁿ *Handlungen.* ^o *die Dauer Gottes.* ^p *eine genugsam klare Idee.*

§2. Concerning the supreme rules governing all syllogisms

The considerations which have been adduced show that the first general rule of all affirmative syllogisms is this: *A characteristic mark of a characteristic mark is a characteristic mark of the thing itself* (*nota notae est etiam nota rei ipsius*).⁶ And the first general rule of all negative syllogisms is this: *that which contradicts⁷ the characteristic mark of a thing, contradicts the thing itself* (*repugnans notae repugnat rei ipsi*).⁷ Neither of these rules is capable of further proof. For a proof is only possible by means of one or more syllogisms, so that attempting to prove the supreme formula of all syllogisms would involve arguing in a circle. That these rules, however, contain the universal and ultimate ground of every kind of syllogism^r is apparent from the following fact: the principles which all logicians have hitherto regarded as the first rules of all syllogisms have to borrow the only ground of their truth from our two rules. The *dictum de omni*,⁸ the ultimate ground of all affirmative syllogisms, runs thus: that which is universally affirmed of a concept, is also affirmed of everything subsumed under that concept. The proof of this principle is clear. A concept, under which other concepts are subsumed, is always abstracted,⁹ as a characteristic mark, from those subordinate concepts. Now, that which belongs to this concept is a characteristic mark of a characteristic mark, and thus it is also a characteristic mark of the things themselves from which it has been abstracted. That is to say, that which belongs to the concept belongs to the lower concepts which are subsumed under it. Anybody with even a moderate knowledge of logic can easily see that the *dictum de omni*⁹ is true simply for this reason, and that it therefore is governed by our first rule. The *dictum de nullo*¹⁰ stands in exactly the same relation to our second rule. That which is universally denied of a concept is also denied of all that which is subsumed beneath that concept. For that concept, under which these other concepts are subsumed, is simply a characteristic mark which has been abstracted from them. But that which contradicts the characteristic mark also contradicts the things themselves; consequently, that which contradicts the higher concepts, must also conflict with the lower concepts which are subsumed under it.

⁶ widerspricht. ^r aller vernünftigen Schlussart. ^s Beweisgrund. ^t abgesondert.

§3. Concerning pure and mixed syllogisms^u

Everybody knows that there are immediate inferences,¹¹ where from one judgement the truth of another judgement is cognised immediately without an intermediate concept. For this reason, such inferences are not syllogisms. For example, from the proposition: All matter is changeable, there immediately follows the proposition: that which is not changeable is not matter. The logicians enumerate different types of such immediate inferences.^v Without doubt, the most important immediate inferences are those which are based upon logical conversion,^{w12} and likewise those which are based upon contraposition.^{x13}

Now, if a syllogism is the product of three propositions only, and if it is in accordance with the rules which have just been explained and which are valid of every syllogism, then I call it a pure syllogism^y (*ratiocinium purum*).¹⁴ If, however, it is only possible by combining more than three judgements, it is a mixed syllogism^z (*ratiocinium hybridum*).¹⁵ Suppose, namely, that between the three main propositions there has to be inserted an inference which has been derived immediately from them, and that, therefore, an extra proposition is added, over and above what is allowed in a pure syllogism, the syllogism is a *ratiocinium hybridum*.¹⁶ For example, suppose that someone were to argue as follows:

Nothing which is perishable is simple;
Consequently, nothing simple is perishable;
The soul of man is simple;
Therefore, the soul of man is not perishable.

Anyone who argued in this fashion would, it is true, not have a genuinely compound syllogism, for that would have to consist of a number of syllogisms.¹⁷ But this syllogism¹⁸ contains, in addition to what is required of a syllogism, an extra inference, arrived at immediately by contraposition; the syllogism thus contains four propositions.

But even if only three judgements were really expressed, the conclusion could only be drawn from these judgements by means of legitimate logical conversion, or by contraposition or some other logical transformation of one of these premises, so that the syllogism would, notwithstanding, still

^u *vermischten Vernunftschlüssen.* ^v *unmittelbare Schlüsse.* ^w *logische Umkehrung.*

^x *Contraposition.* ^y *einen reinen Vernunftschluss.* ^z *vermengter Vernunftschluss.*

be a *ratiocinium hybridum*.¹⁹ For what is important here is not what one says but what is indispensably necessary to thought if a valid inference is to be present.^a Take the following syllogism:

Nothing perishable is simple;
The soul of man is simple;
Therefore, the soul of man is not perishable.

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Suppose for a moment that the conclusion is valid only as a result of my being able to assert, in virtue of a completely valid conversion of the main premiss: nothing perishable is simple, so nothing simple is perishable; the syllogism is still a mixed inference, for its power to establish a conclusion^b depends upon the tacit addition of this immediate inference, which has to be present if only in thought.

^a denn es kommt hier gar nicht darauf an was man sagt, sondern was man unumgänglich nöthig hat, dabei zu denken, wenn eine richtige Schlussfolge soll vorhanden sein.

^b Schlusskraft.

*§4. In the so-called first figure only pure
syllogisms are possible. In the remaining three
figures nothing but mixed syllogisms is
possible.²⁰*

If a syllogism is constructed immediately^c in accordance with one of the two supreme rules which we have introduced above, then it is always in the first figure. The first rule is, therefore, this: a characteristic mark B of a characteristic mark C of a thing A is a characteristic mark of the thing A itself.²¹ Three propositions follow from this:

| | |
|---------------------------------|---|
| C has the characteristic mark B | That which is rational (C) is a mind (B); |
| A has the characteristic C | The human soul (A) is rational (C); |
| Therefore, | Therefore, |
| A has the characteristic mark B | The human soul (A) is a mind (B). ²² |

It is very easy to adduce other similar propositions as examples, and among them propositions governed by the rule of negative inferences, to convince oneself that if they agree with these rules then they are always in the first figure. My attempt to avoid tedious long-windedness^d is thus justified. It will also be easily realised that these syllogistic rules do not require that, in addition to these judgements, there must be inserted between them some immediate inference which has been drawn from one or other of them, if the argument is to be valid. It follows that the syllogism in the first figure is of a pure kind.

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IN THE SECOND FIGURE ONLY MIXED
SYLLOGISMS ARE POSSIBLE

The rule of the second figure is this: Whatever is contradicted by the characteristic mark of a thing contradicts the thing itself.^{e23} This proposi-

^c wenn ein Vernunftschluss unmittelbar . . . geführt wird. ^d eine ekelhafte Weitläufigkeit.

^e Wenn ein Merkmal eines Dinges widerspricht, das widerspricht dem Dinge selber.

tion is only true because that which is contradicted by a characteristic mark also contradicts this characteristic mark; but what contradicts a characteristic mark conflicts with the thing itself; so, that which is contradicted by a characteristic mark of a thing, conflicts with the thing itself. Now, it is obviously the case that an inference by means of the minor premiss to the conclusion is only possible because I can subject the major premiss, as a negative proposition, to a simple conversion. This conversion must, therefore, be tacitly thought^f in making the inference, for otherwise my propositions do not form a valid inference.^g The proposition generated by the conversion is, however, a consequence immediately deriving from the first proposition and interpolated between it and the second; the syllogism thus has four judgements and is a *ratiocinium hybridum*.²⁴ For example, suppose that I say:

No mind is divisible;
All matter is divisible;
So, no matter is a mind.²⁵

My inference is valid,^h but what gives it its power to establish the conclusionⁱ is this: from the first proposition: *no mind is divisible*, there follows by means of an immediate inference the proposition: *so nothing divisible is a mind*; after that everything validly follows in accordance with the universal rule governing all syllogisms. But, since the capacity of the argument to establish a conclusion^j depends exclusively on the inference which is to be drawn immediately from the major premiss, that inference belongs to the argument and it has four judgements:

No mind is divisible;
Hence, nothing divisible is a mind;
All matter is divisible;
Consequently, no matter is a mind.

IN THE THIRD FIGURE ONLY MIXED SYLLOGISMS ARE POSSIBLE

The rule of the third figure is as follows: that which belongs to or contradicts a thing, also belongs to or contradicts some of the things which are subsumed under another characteristic mark of this thing.^{k26} This proposition is itself only true because it is possible (*per conversionem logicam*)²⁷ to convert the judgement, which maintains that another characteristic mark

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^f geheim gedacht werden. ^g sonst schliessen meine Sätze nicht. ^h so schliesse ich recht.

ⁱ Schlusskraft. ^j Schlussfähigkeit.

^k was einer Sache zukommt oder widerspricht, das kommt auch zu oder widerspricht einigen, die unter einem andern Merkmal dieser Sache enthalten sind.

belongs to this thing; by this means it comes to agree with the rule of all syllogisms. For example, the argument runs:

All human beings are sinners;
 All human beings are rational;
 So, some rational beings are sinners.²⁸

This conclusion only follows¹ because I can infer from the minor premiss, by means of a conversion *per accidens*: therefore, some rational beings are human beings. After that the concepts are compared in accordance with the rule of all syllogisms, but only by means of an interpolated immediate inference. And what one has is the following *ratiocinium hybridum*:²⁹

All human beings are sinners;
 All human beings are rational beings;
 Consequently, some rational beings are human beings;
 Therefore, some rational beings are sinners.

Exactly the same thing can be shown with great ease in the negative mode of this figure; but I shall omit it for the sake of brevity.³⁰

IN THE FOURTH FIGURE ONLY MIXED SYLLOGISMS ARE POSSIBLE

The mode of inference in this figure^m is highly unnatural and depends upon a large number of intermediate inferences which have to be supposed to be interpolated. So much so, indeed, that the general account of the rule governing this mode of syllogistic reasoning which I might offer would be very obscure and difficult to understand.³¹ For this reason, I shall only specify the conditions under which a valid conclusion may be drawn in this figure of the syllogism. A valid inference is possible in the negative modes of this syllogism because I change the positions of the terms either by means of logical conversion or by means of contraposition. I am thus enabled to think after each premiss its immediate implication. In this way, the sequences of inferences acquire the relation which they must have in a syllogism, according to the general rule. I shall, however, show that in the affirmative mode syllogisms are not possible in the fourth figure at all. The negative syllogism in this figure, the form in which it must really be thought, takes the following form:

2:54 No fool is learned;
So, no learned person is a fool;

¹ *Dieses schliesst nur.*

^m (The translator has adopted Lasswitz's emendation of *Form* ['form'] to read *Figur* ['figure'].)

ⁿ *dunkel und unverständlich.*

Some learned people are pious;
So, some pious people are learned;
 Therefore, some pious people are not fools.³²

A syllogism of the second kind³³ would run:

Every mind is simple;
 Everything simple is imperishable;
 Therefore, some of what is imperishable is a mind.³⁴

In this case it is obvious that the conclusion, as it is presented here, cannot follow from the premisses at all. This is instantly apparent when one compares the middle term with the conclusion. To be specific: I cannot say that some of what is imperishable is a mind because it is simple; for it is not the case that something is a mind simply in virtue of its being simple.^o Furthermore, it is not possible, no matter what logical transformations^p are employed, so to arrange the premisses that the conclusion, or, indeed, even another proposition from which the conclusion follows as an immediate consequence, can be derived from them. Such a derivation is impossible, namely, if the terms of the syllogism are to have the positions prescribed by the rule which governs all the figures of the syllogism and which has been established once and for all, and in virtue of which the major term occurs in the major premiss and the minor in the minor premiss.* It is true that, if I completely reverse the positions of the main terms, so that what was previously the major now becomes the minor, and conversely, what was previously the minor now becomes the major, a consequence can be drawn from which the given conclusion follows. But in that case, a complete transposition^r of the premisses is then necessary. The so-called syllogism in the fourth figure which is thus obtained, contains, it is true, the materials for a conclusion, but it does not have the form, in accordance with which the conclusion is to be drawn. From the point of view of the logical order, in which alone the division of the four figures is possible, the fourth syllogism is not a syllogism at all. The situation in the case of the negative mode of

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* This rule is based upon the synthetic order according to which the remote attribute is compared with the subject first, and then the nearer attribute is compared with the subject. Although this may, at first sight, look as if it were merely arbitrary,^q it nonetheless turns out to be indispensably necessary if one is to have four figures. For, as soon as it is a matter of indifference whether the predicate of the conclusion is put in the major premiss or the minor premiss, the first figure cannot be distinguished at all from the fourth. A similar mistake is to be found in Crusius's *Logik*,³⁵ note on page 600.

^o denn darum, weil etwas einfach ist, ist es nicht sofort ein Geist. ^p logische Veränderung.

^q willkürlich. ^r eine gänzliche Versetzung.

inference in the same figure is entirely different. Such a negative mode of inference would have to run, namely, as follows:

Every mind is simple;
 Everything simple is imperishable;
 So, every mind is imperishable;
 Therefore, some of what is imperishable is a mind.

This is a perfectly valid inference.⁵ But such a syllogism differs from a syllogism in the first figure, not in virtue of the middle term having a different position, but only in virtue of a change of the order of the premisses in the syllogism* and of the order of the main terms⁶ in the consequence. But that in no wise amounts to a change of figure. A mistake of this kind is to be found in the passage referred to above in Crusius's *Logik*: he supposes that one is reasoning in the fourth figure and doing so, indeed, with greater naturalness, because one is free to change the order of the premisses. It is a pity that a great mind should have taken this trouble to improve something which is of no value. The only useful thing to do is to do away with it.⁷

* For if the proposition, in which the predicate of the conclusion occurs, is the major premise, then, speaking of the proper conclusion which here follows from the premisses, the second proposition is the major premise, and the first proposition is the minor premise. But then everything is inferred in accordance with the first figure, except that the proposed conclusion is drawn by means of logical conversion from that which follows immediately from the judgements mentioned above.

⁵ *Dieses schiesst ganz richtig.* ⁶ *Hauptbegriffe.*

⁷ *Man kann nur was Nützliches thun, wenn man sie vernichtet.*

§5. *The logical division of the four syllogistic figures is a piece of false subtlety.*^{v36}

One cannot deny that valid inferences may be drawn in all these four figures. But it is indisputable that all four figures, with the exception of the first, determine the conclusion only indirectly by means of interpolated intermediate inferences.^v It is further indisputable that exactly the same conclusion can be inferred, in pure and undiluted form, from the same middle term employing the first figure. Now, it might at this point occur to someone to suppose that, if such were the case, then the three other figures would, at worst, be useless, but not actually false. But if one considers the intention which inspired their invention and continues to inspire their presentation, one will come to a different view of the matter. Suppose that one wished to bring about the following situation. A number of inferences and the main judgements, all intermingled together, are to be entangled with each other in such a fashion that, some being explicitly stated and others suppressed,^x a great deal of skill will be required to determine whether or not they conform to the laws of inference. If this were one's objective, one might invent, not, indeed, new figures, but new and puzzling inferences capable of causing headaches enough. The purpose of logic, however, is not to confuse but to clarify;^y its aim is not to obscure but clearly to reveal.^z Hence, these four modes of inference ought to be simple, unmixed and free from concealed supplementary inferences.^a If they do not satisfy these conditions they are not to be granted the freedom of appearing in a logical discourse as the formulae which represent the syllogism in clearest form. It is also certain that hitherto all logicians have regarded them as simple syllogisms, not requiring the interpolation of additional judgements. Had they not been regarded in this light, they would never have received their citizenship.^{b37} Thus, the remaining three modes of inference, construed as syllogistic rules in general, are correct; but construed as containing a simple and pure inference, they are

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^v *falsche Spitzfindigkeit.* ^v *eingemengte Zwischenschlüsse.*

^x *Wenn es darauf ankäme, eine Menge von Schlüssen, die unter die Haupturtheile gemengt wären, mit diesen so zu verwickeln, dass, indem einige ausgedrückt, andere verschwiegen würden.*

^y *nicht zu verwickeln, sondern aufzulösen.*

^z *nicht verdeckt, sondern anscheinlich etwas vorzutragen.* ^a *ohne verdeckte Nebenschlüsse.*

^b *dieses Bürgerrecht.*

mistaken. This mistake turns the confusing of the understanding into a positive right, and it deprives logic of its distinctive purpose, namely that of reducing everything to the simplest mode of cognition.^c And the magnitude of the mistake increases with the number of the special rules (and each figure has a number of such rules peculiar to itself) which are necessary if one is not to trip over oneself when performing these capers.^d If ever there was a case of great ingenuity being squandered on something utterly futile, or a case of great apparent learning being wasted, then this is it. The so-called *modi* which are possible in each figure and which are designated by strange words, also contain, very artfully concealed, letters which facilitate their transformation into the first figure. These *modi* will one day come to be regarded as a precious curiosity^e representative of a way of thinking employed by the human understanding. And that will occur when the venerable rust of antiquity shall teach a better instructed posterity to look with amazement and regret on the eager and futile efforts of their ancestors preserved in these relics.

2:57 It is easy to discover what initially led to this subtlety. The person who first wrote down a syllogism in three lines arranged one above the other, and looked at it as one would look at a chess-board, and who then attempted to establish what would happen if one changed the positions of the middle term – that person, when he discovered that the transposition yielded good sense was as much taken aback as someone detecting an anagram in a name. To delight in either of these things was equally childish, particularly since it was not noticed that it produced nothing new in respect of distinctness,^f but only served to increase the obscurity.^g However, when all is said and done, the fate of the human understanding is such that it is either given to brooding over deep matters and falls into bizarre ideas,^h or it audaciously chases after objects too great for its grasp and builds castles in the air. Among the common herd of thinkers,ⁱ there is one who chooses the number 666, another the origin of animals and plants, or the mysteries of providence. The error into which they each fall is very different in character, and that difference corresponds to the difference between their mental constitutions.

Ours is an age in which the things which are worth knowing are increasing in number. It will not be long before our ability grows too weak and our lives too short for us to be able to understand even the most useful of these things. Riches offer themselves to us in such superabundance that, in order to take possession of them, we find ourselves constrained to

^c die einfachste Erkenntnisart.

^d um bei diesen Seitensprungen sich nicht selbst ein Bein unterzuschlagen.

^e eine schatzbare Seltenheit. ^f Deutlichkeit. ^g Undeutlichkeit.

^h grüblerisch und geräth auf Fratzen. ⁱ von dem grossen Haufen der Denker.

abandon a great deal of useless rubbish,^j it would have been better had we never been burdened with it in the first place.

I should be flattering myself too highly if I were to suppose that the labour of a few hours were capable of toppling the colossus, who hides his head in the clouds of antiquity, and whose feet are feet of clay. My intention is simply to explain why, in my course on logic^k – where I am not permitted to arrange everything in accordance with my own understanding of these things but am often obliged to defer to the prevailing taste – I treat these matters only briefly, so as to devote the time thus saved to the genuine enlargement of useful knowledge.^l

Syllogistic has another certain utility, namely that of enabling one to carry off the victory over a careless opponent in a learned dispute. However, since this belongs to academic athleticism^m – an art which may well be of great use, though it does not contribute greatly to the advancement of truth – I shall pass it over in silence.

^j unnützen Plunder. ^k in dem logischen Vortrag. ^l nützlicher Einsichten.

^m Athletik der Gelehrten.

§6. Concluding reflection

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Our discussions have established the following points: that the supreme rules governing all syllogisms lead directly to that order of concepts which is called the first figure; that all other transpositions of the middle term only yield valid inferences if, by means of easy and immediate inferences, they lead to such propositions as are connected in the simple order of the first figure; that it is impossible to draw simple and unmixed inferences in more than one figure, for it is only ever the first figure which, concealed in a syllogism by means of covert inferences, has the power to generate the conclusion, with the changed position of the terms merely occasioning a deviation, shorter or longer as the case may be, which has to be followed if one is to understand how the conclusion has been reached; and that the division of the figures in general, in so far as they are supposed to contain inferences which are pure, unmixed and free from interpolated inferences, is false and impossible. It is easy to see from our explanations – and for that reason I do not propose to dwell on it – that the universal fundamental rules which govern all syllogisms contain the special rules of the so-called first figure; it is also easy to see that, given the conclusion and the middle term, one can instantly convert any syllogism belonging to one of the other figures into the first simple figure, without the futile tediousness of the formulae of reduction," so that either the conclusion itself or a proposition from which the conclusion follows by immediate inference, can be inferred.

I do not wish to conclude this reflection without adding some remarks which may be of some considerable use in other connections.

Firstly, then I would say: a *distinct* concept^o is only possible by means of a *judgement*, while a *complete* concept^p is only possible by means of a *syllogism*.³⁸ A distinct concept demands, namely, that I should clearly recognise^q something as a characteristic mark of a thing; but this is a judgement. In order to have a distinct concept of body, I clearly represent to myself impenetrability as a characteristic mark of it. This representation, however, is nothing other than the thought: *a body is impenetrable*. The only thing which needs to be remarked upon in this connection is the fact that this judgement is not the distinct concept itself, but rather the action,^r by

ⁿ *Reductionsformulae.* ^o *ein deutlicher Begriff.* ^p *ein Vollständiger.* ^q *klar erkenne.*
^r *die Handlung.*

means of which the distinct concept is actualised, for the representation of the thing which comes into being after the operation is distinct. It is easy to show that a complete concept is only possible by means of a syllogism; one needs only to look at the first numbered section³⁹ of this treatise. For this reason one could also call a distinct[†] concept one which is clear,[†] in virtue of a judgement, while a complete concept could be called one which is distinct^u in virtue of a syllogism. If the completeness is of the first degree, then the syllogism is simple; if the completeness is of the second or third degree, then it is only possible by means of a series of chain-syllogisms,^v which the understanding condenses in the manner of a sorites.⁴⁰ These considerations also plainly reveal a fundamental mistake of logic, as logic is commonly treated: it discusses distinct and complete concepts before it discusses judgements and syllogisms, although the former are only possible in virtue of the latter. 2:59

Secondly, it is equally obvious that the completeness of a concept and its distinctness do not require different fundamental faculties of the soul (for the capacity which immediately recognises something as a characteristic mark of a thing, and which represents another characteristic mark as contained in the first characteristic mark, and which thus thinks the thing by means of a remote characteristic mark, is in all these cases exactly the same). It is equally obvious that *understanding* and *reason*, that is to say, the faculty of cognising distinctly and the faculty of syllogistic reasoning, are not different *fundamental faculties*.^w Both consist in the capacity to judge; but when one judges mediately, one draws an inference.

Thirdly, it can also be concluded from the above considerations that the higher faculty of cognition^x rests absolutely and simply on the capacity to judge. Accordingly, if a being can judge, then it possesses the higher faculty of cognition.^y If one has cause to deny of this being that it possesses this faculty, then that being is incapable of judgement. The failure to reflect on these matters has induced a man of renown and learning⁴¹ to attribute distinct concepts to animals. This argument runs like this: an ox's representation of its stall includes the clear representation of its characteristic mark of having a door; therefore, the ox has a distinct concept of its stall. It is easy to prevent the confusion here. **The distinctness of a concept does not consist in the fact that that which is a characteristic mark of the thing is clearly represented,^z but rather in the fact that it is recognised^a as a characteristic mark of the thing.** The door is something which does, it is true, belong to the stall and can serve as a characteristic mark of it. But only the being who forms the judgement: *this door belongs to this stable* has a distinct concept of the building, and that is certainly beyond the powers of animals.

[†] deutlichen. [†] klar. ^u deutlich. ^v eine Reihe von Kettenschlüssen. ^w Grundfähigkeiten.

^x die obere Erkenntnisskraft. ^y die obere Erkenntnissfähigkeit. ^z klar vorgestellt. ^a erkannt.

2:60 I would go still further and say: it is one thing to *differentiate^b* things from each other, and quite another thing to *recognise* the difference between them.^c The latter is only possible by means of judgements and cannot occur in the case of animals, who are not endowed with reason. The following division may be of great use. *Differentiating logically^d* means recognising^e that a thing A is not B; it is always a negative judgement. *Physically differentiating^f* means being driven to different actions by different representations. The dog differentiates the roast from the loaf, and it does so because the way in which it is affected by the roast is different from the way in which it is affected by the loaf (for different things cause different sensations); and the sensations caused by the roast are a ground of desire in the dog which differs from the desire caused by the loaf,* according to the natural connection which exists between its drives and its representations. This consideration may induce us to think more carefully about the essential difference between animals endowed with reason and those not so endowed. If one succeeds in understanding what the mysterious power^g is which makes judging possible, one will have solved the problem. My present opinion tends to the view that this power or capacity^h is nothing other than the faculty of inner sense,ⁱ that is to say, the faculty of making one's own representations the objects of one's thought. This faculty cannot be derived from some other faculty. It is, in the strict sense of the term, a fundamental faculty,^j which, in my opinion, can only belong to rational beings. But it is upon this faculty that the entire higher faculty of cognition is based. I conclude with a thought which will be bound to be a source of pleasure to those who are able to delight in the unity which is to be found in human cognition. All affirmative judgements are subsumed under a common formula, the law of agreement:^k *cuiuslibet subjecto competit praedicatum ipsi identicum*;⁴² all negative judgements are subsumed under the law of contradiction: *nulli subjecto competit praedicatum ipsi oppositum*.⁴³ All affirmative syllogisms are subsumed under the rule; *nota notae est nota rei ipsius*;⁴⁴ all negative syllogisms are subsumed under this rule: *oppositum notae opponitur rei ipsi*.⁴⁵ All judgements, which are directly subsumed

* It is, indeed, of the greatest importance, when considering the nature of animals, to take account of this. In observing them, we only notice external actions; the differences between those actions are indicative of the differing determinations of their appetites. It by no means follows from this that there occurs within them that action of the faculty of cognition in which they have an awareness of the agreement or conflict between what is in one sensation and what is in another, and hence that they judge in accordance with that awareness.

^b unterscheiden.

^c den Unterschied der Dinge erkennen / (alt: to know or cognise the difference between things).

^d Logisch unterscheiden. ^e erkennen. ^f physisch unterscheiden. ^g geheime Kraft.

^h Kraft oder Fähigkeit. ⁱ Vermögen des innern Sinnes. ^j Grundvermögen.

^k Der Satz der Einstimmung.

under the laws of identity or contradiction, that is to say, all judgements in the case of which identity or contradiction are apprehended immediately, not through an intermediate attribute (and consequently not by means of the analysis of concepts), are indemonstrable propositions; those in which identity or contradiction can be cognised mediately are demonstrable. 2:61 Human knowledge^l is full of such indemonstrable^m judgements. Every definitionⁿ is preceded by a number of such indemonstrable judgements, for in order to arrive at a definition, one represents as a characteristic mark of the thing that which one immediately cognises in a thing before anything else.⁴⁶ Those philosophers are mistaken who proceed as if there were only one unprovable fundamental truth and no others.⁴⁷ But those philosophers are no less mistaken who, with excessive generosity and inadequate guarantees,^o confer this distinction upon a variety of their propositions.⁴⁸

^l Erkenntniss. ^m unerweisliche. ⁿ Definition.

^o ohne genügsame Gewährleistung zu freigebig sind.