

Table of *Realdefinitions* of the Categories with Footnotes on Transcendental Logic

Quantity:

The category of **unity** (oneness) is:

- from the logical perspective, the notion of the scheme for representing extensive magnitude in a singular judgment;¹
- from the transcendental perspective, the notion of association in the determination of concepts as the *materia ex qua* of the synthesis of reproduction concordant with an aesthetic Idea insofar as this association pertains to identity in the extensive magnitude of the sphere of a concept;²
- from the hypothetical perspective, the notion of the common context in the *Existenz* of all appearances;
- from the empirical perspective, the notion of a determined object.

The category of **plurality** (manyness) is:

- from the logical perspective, the notion of the scheme for representing extensive magnitude in a particular judgment;³
- from the transcendental perspective, the notion of association in the determination of concepts as the *materia ex qua* of the synthesis of reproduction concordant with an aesthetic Idea insofar as this association pertains to difference in the extensive magnitude of the sphere of a concept;⁴
- from the hypothetical perspective, the notion of sub-contexts in the form of every context;
- from the empirical perspective, the notion of determined appearances.

The category of **totality** (allness) is:

- from the logical perspective, the notion of the scheme for representing extensive magnitude in a universal judgment;⁵
- from the transcendental perspective, the notion of association in the determination of concepts as the *materia ex qua* of the synthesis of reproduction concordant with an aesthetic Idea insofar as this association pertains to the completion of the extensive magnitude of the sphere of a concept;⁶
- from the hypothetical perspective, the notion of a complete context as the integration of all sub-contexts into one context in the given whole of all appearances;
- from the empirical perspective, the notion of a real Object symbolizing a *res ipsa* ('thing in fact') under the principle of the Ideal of an *entis realissimi*.⁷

Quality:

The category of **reality** is:

- from the logical perspective, the notion of the scheme for determining the intensive magnitude in an affirmative judgment;⁸
- from the transcendental perspective, the notion of the form of compatibility in the determination of the *materia in qua* of intuition as agreement in the synthesis of comprehension and apprehension;⁹
- from the hypothetical perspective, the notion of the sensible context of the appearance in an intuition;
- from the empirical perspective, the notion of making a transcendental affirmation of the quality of 'being something.'¹⁰

The category of **negation** is:

- from the logical perspective, the notion of the scheme for determining the intensive magnitude in a negative judgment;¹¹
- from the transcendental perspective, the notion of the form of compatibility in the determination of the *materia in qua* of intuition as opposition in the synthesis of comprehension and apprehension;¹²

- from the hypothetical perspective, the notion of the intelligible context in the concept of an appearance;¹³
- from the empirical perspective, the notion of making a transcendental denial of the quality of 'being something.'¹⁴

The category of **limitation** is

- from the logical perspective, the notion of the scheme for determining the intensive magnitude in an infinite judgment;¹⁵
- from the transcendental perspective, the notion of the form of compatibility in the determination of the *materia in qua* of intuition as distinction in the synthesis of comprehension and apprehension;¹⁶
- from the hypothetical perspective, the notion of the real context in a cognition of an appearance;
- from the empirical perspective, the notion of the divided Object in Reality and symbolizing in this Object an *ens priorem* under the principle of the Ideal of an *ens originarium*.¹⁷

Relation:

The category of **substance and accident** is:

- from the logical perspective, the notion of the scheme for determining the objective form of a categorical judgment;¹⁸
- from the transcendental perspective, the notion of the *materia circa quam* of transcendental anticipation in the determination of the connection of the concept in inner sense as immanent in the synthesis of reproduction;¹⁹
- from the hypothetical perspective, the notion of the object as the formal condition of every context;
- from the empirical perspective, the notion of subsistence and inherence at the boundary of experience signifying the *Existenz* in Reality of a *Sache*-thing.²⁰

The category of **causality and dependency** is:

- from the logical perspective, the notion of the scheme for determining the objective connection as antecedent and consequent in a hypothetical judgment;²¹
- from the transcendental perspective, the notion of the *materia circa quam* of transcendental anticipation in the determination of the connection of the concept in inner sense as transeunt in the synthesis of reproduction;²²
- from the hypothetical perspective, the notion of a series of conditions in the appearance of contexts;
- from the empirical perspective, the notion at the boundary of experience signifying the *Existenz* in Reality of an *Unsache*-thing.²³

The category of **community** is:

- from the logical perspective, the notion of the scheme for determining the objective form of a disjunctive proposition;²⁴
- from the transcendental perspective, the notion of the *materia circa quam* of transcendental anticipation in the determination of the connection of the concept in inner sense as reciprocal in the synthesis of reproduction;²⁵
- from the hypothetical perspective, the notion of the World as the formal context of all objects;
- from the empirical perspective, the notion at the boundary of experience signifying *Existenz* in Reality of a state of Nature in the concept of an Object as an *ens superiorem* under the Ideal of *ens summum*.²⁶

Modality:

The category of **possibility and impossibility** is:

- from the logical perspective, the notion of the scheme for determining a problematic proposition solely through the power of spontaneity under the inducement of an aesthetic Idea in the synthesis of comprehension;²⁷
- from the transcendental perspective, the notion of the determination of a sign of possible expedience or inexpedience for a purpose in the determined concept that can be made part of the symbolic meaning vested in an intuition in the synthesis of apperception;²⁸
- from the hypothetical perspective, the notion of a possible (or impossible) context;
- from the empirical perspective, the notion that predicates the manner of a merely conceptual coherence of the concept in the context of Nature.²⁹

The category of *Dasein and Nichtsein* (actuality & non-being) is:

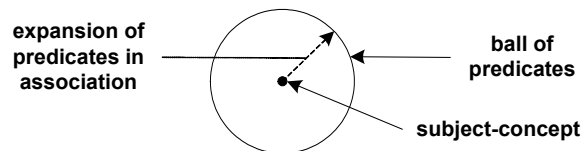
- from the logical perspective, the notion of the scheme for determining an assertoric proposition through the combined powers of receptivity and spontaneity under the inducement of an aesthetic Idea in the synthesis of apprehension;³⁰
- from the transcendental perspective, the notion of the determination of a sign of actual expedience or inexpedience for a purpose in the determined concept that can be made part of the symbolic meaning vested in an intuition in the synthesis of apperception;³¹
- from the hypothetical perspective, the notion of an actual context (or non-context) of real experience;
- from the empirical perspective, the notion that predicates the manner of phenomenal coherence of an object in the context of experience.³²

The category of **necessity and contingency** is:

- from the logical perspective, the notion of the scheme for determining the marks of the conditions of experience in an apodictic proposition;³³
- from the transcendental perspective, the notion of the determination of a sign of necessary expedience or inexpedience for a purpose in the determined concept that can be made part of the symbolic meaning vested in an intuition in the synthesis of apperception;³⁴
- from the hypothetical perspective, the notion of a context made necessary (or made not necessary) by the condition that the context of every object must be true;
- from the empirical perspective, the notion that predicates the manner of systematic coherence in Reality under the principle of the Ideal of an *ens entium*.³⁵

Footnotes on the transcendental Logic of the categories:

1. In a singular judgment the subject-concept has no sphere, i.e. the concept has no other concepts standing under it. The scheme of the category of unity completes an extension of the sphere of a *higher* (predicate) concept *a parte posteriori* by identification of a terminating subject-concept of an individual object in the series. Recall that a logical subject is a representation that cannot be the predicate of any judgment. Thus the category of unity combines coordinate marks (predicates) at a point of identification.
2. The category of unity as a notion of association identifies *a parte priori* the marks that are contained in a concept of their unity for the synthesis of reproduction in imagination. The intersection of the spheres of the higher concepts under which stands the concept of their unity constitutes what Kant called the *logical horizon* of the latter concept. Here we can regard the synthesis of reproduction as the act of expanding the subject-concept outward as a mathematical ball of predicates with the subject-concept at its center.



3. In non-singular judgments the subject-concept always has a sphere. In affirmative particular judgments all or part of the sphere of the predicate-concept (if it has one) is brought into the sphere of the subject-

concept (see figure 8.5.4). The scheme of category of plurality is a synthesis of aggregation proceeding *a parte posteriori* from the subject-concept. Note that no judgment of plurality is possible with a subject-concept that is an individual object-concept because an individual object-concept has no sphere (and therefore cannot be a subject-concept for the judgment). The subject-concept is therefore always a higher concept contained in one or more individual object-concepts, i.e. it is a concept of an appearance under which is contained the individual object-concepts. The category is a scheme for determining the sphere of the subject-concept, and this means that its rule excludes all individual object-concepts in the sphere of the predicate which contain in the object-concept marks that are in real opposition in the synthesis of the *Verstandes-Actus* in sensibility. Hence the scheme of the rule in the representation of the extensive magnitude of the subject-concept is not a simple set-theoretic union or intersect operation. The synthesis of comprehension assimilates what it can of the sphere of the predicate and excludes what cannot be assimilated into an intuition.

4. Under the category of plurality the rule of association in the synthesis of reproduction in imagination proceeds *a parte posteriori* to the lower concepts in the spheres of the subject-concept and the predicate-concept and then *a parte priori* to their sufficient marks of recognition. The *synthesis* in the free play of imagination and determining judgment attempts to combine concepts in the subject-sphere *a parte priori* with concepts in the predicate concept. This can be done only insofar as the sensible reproduction of the sufficient marks of recognition harmonize in the aesthetic Idea and the *materia* of the reproduction is possible to represent in a single intuition. That part of the sphere of the subject-concept that does not so harmonize with any part in the sphere of the subject-concept must be differentiated (set outside the sphere of the predicate-concept; this implicates another and distinct act of judgment in the overall free play of imagination and determining judgment¹). The synthesis of comprehension in co-operation with the process of determining judgment thereby determines partial or full boundaries for the respective spheres of the subject- and predicate-concepts (e.g., “Some animals are men”). Note that the *form* of the resulting composition in the manifold of concepts is *indifferent* to which concept is determined to be the subject and which is determined to be the predicate, e.g., “Some men are like animals” – an inference of analogy.

5. In a universal judgment the sphere of the subject-concept either lies entirely within or is entirely excluded from the sphere of the predicate-concept (see figure 8.5.5). The scheme of the category acts to coordinate the predicate-concept in the subject-concept or to subordinate the subject-concept to the predicate-concept. The structural distinction between totality and unity arises because in the universal judgment the subject-concept has a sphere, which means that it contains under it lower concepts in series *a parte posteriori* terminating eventually in individual object-concepts. Conjointly, the synthesis of the subject-concept with the predicate-concept runs in a series *a parte priori* from the predicate- to the subject-concept such that no contradiction in any necessary marks of recognition contained in the predicate-concept (for the affirmative universal judgment) is encountered in any of the sufficient marks of recognition contained in the subject-concept. Where the synthesis in the free play of imagination and determining judgment is able to produce a possible intuition, the subject-concept is a unity with respect to the predicate-concept but a genus with respect to the lower concepts standing under it. As Kant put it, “Many in so far as it is one is totality. That in which is all-ness of many things is entirety²” [KANT19: 325 (28:560)].

6. The rule of association given by the category of totality associates *a parte priori* all necessary marks of recognition in the predicate-concept with all marks of recognition *a parte priori* in all individual objects under the subject-concept. Totality requires that the necessary marks in the predicate-concept are found in the concepts of every individual in the subject-sphere. This is to say that all the associated Objects harmonize with the aesthetic Idea when the subject-concept’s sphere is either placed within or without

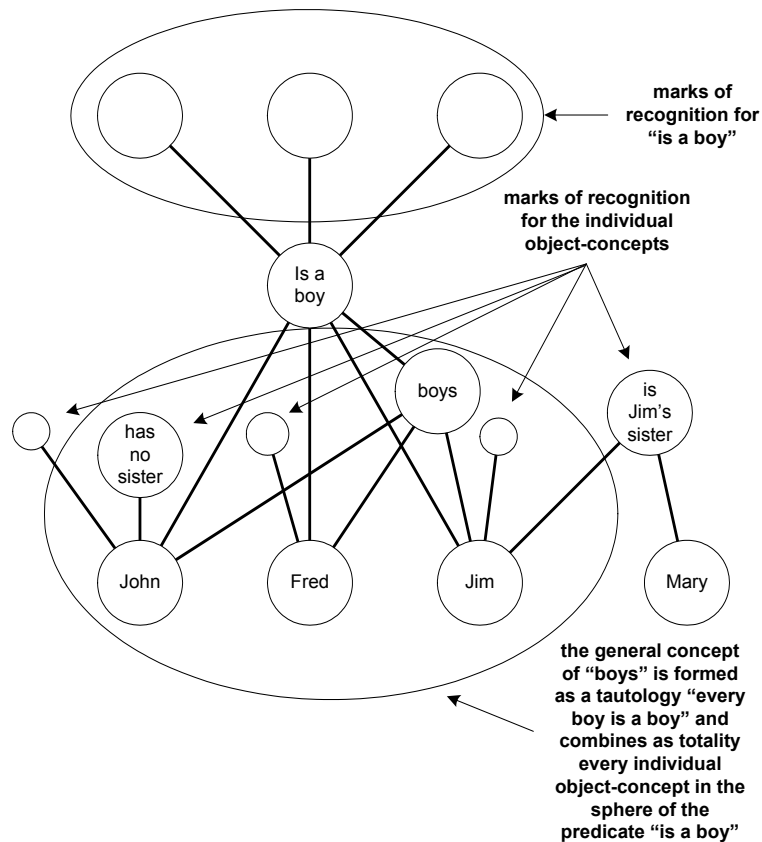
¹ Something important to understand about Kant’s transcendental Logic is that every determinant judgment must combine in *one overall act* the synthesis of all four titles of representation. Every judgment involves a category of Quantity, a category of Quality, one of Relation, and one of Modality. There is no combination in the manifold of concepts without an accompanying synthesis in an intuition. Every category corresponds to a transcendental schema and so one cannot consider determining judgment to act outside or independently of the synthesis in sensibility and imagination. Categories are not innate ideas. Thinking is a *commercium* of imagination and judgment.

² *Id, in quo est omnitudo plurium, est totum.*

that of the predicate-concept. For example, the judgment “All men are animals” is a possible universal proposition because the necessary marks of “being an animal” are found in every individual under the concept of “being a man.” Contrariwise, a judgment “All men are fathers” cannot be a universal proposition because the necessary marks of “being a father” are not contained in the concept of some individuals in the sphere of the concept “being a man.”

The completion of the extensive magnitude under the category of totality is a completion of the sphere of the *predicate*-concept. It is the predication that is regarded as universal in a universal proposition. Note, however, that a judgment of totality is based upon the thinking Subject’s concept structure alone. For example, we can recall Piaget’s young subject whose concept of “being a brother” included the proposition, “To be a brother one must have a sister” [PIAG11: 106]. Thus, to the mind of this child the universal proposition is, “All-boys are-not-brothers” *because* “some boys have no sister.”

It is important to note that the subject-concept in this example is “all boys”; this concept is nothing else than a general concept (“boys”) of all individual object-concepts in the sphere under the predicate-concept “is a boy.” Each individual object-concept has no sphere but does contain characteristic marks of recognition *in* the concept; marks, which are higher concepts, are said to be “contained in” the concept of which they are marks; lower concepts are “contained under” a concept. Likewise, the concept “is a boy” is recognized from characteristic marks that must be satisfied in each individual object-concept under a singular judgment (e.g., “John is a boy”). Before a universal proposition such as “all boys are not brothers” can be thought, the general concept of “boys” must be formed, e.g. as the universal tautology “every boy is a boy.” This is a judgment of totality in composition and, although it is a tautology according to traditional logic, this judgment cannot be omitted or “presumed” in thinking because the general concept “boys” is distinct both from the individuals and from the predicate concept “is a boy” (which is the necessary and sufficient mark of recognition for “boys”). This structure is illustrated by the following simplified figure. Similarly, particular propositions made for the general object, e.g. “some boys have no sister,” cannot be formed until the general concept of “boys” is constructed in the manifold (since the predicate “have no sister” stands under “boys” in this proposition and is distinct from the singular proposition “John has no sister”).



Conventional formal logic abstracts from all material contents in its propositions, and it is left up to the logician to supply this when setting up a problem in logic. Formal logic is concerned with nothing more than correct forms of argumentation; hence Piaget called logic the “morality of thought.” Transcendental Logic, on the other hand, is concerned with structures of meanings. Thus, while formal logic cannot speak to the “empirical truth value” of the childish proposition “to be a brother one must have a sister,” transcendental Logic does. In transcendental Logic abstraction is not made of the empirical contents of a concept, and determinant judgments are always based upon the manifold of concepts as it exists (in the *Existenz* sense) at the moment when the intuition of the judgment-proposition concept is marked.

The example presented above does tell us something regarding the disagreement between modern symbolic logic and Aristotle’s logic over the “existential import” of Aristotle’s subject-term. Modern logic holds that before “all griffins are fierce” can be asserted there must first be a predication “griffins exist.” Aristotle is criticized for tacitly presuming or implying “griffins exist” without explicitly making the proposition. In transcendental Logic, the necessary “existential” pre-condition for the predication “all griffins are fierce” is nothing more than that the thinking Subject has a concept “griffins” connected in the manifold of concepts. “Griffins” then “exist” in the *Existenz* sense that the concept is presented in the manifold and connected in a context. Reading about “griffins” in Bulfinch’s *Mythology* is sufficient for “establishing the existence” of “griffins” so far as transcendental Logic goes. If the thinking Subject has no concept of “griffins” then the predication “all griffins are fierce” is *not possible to think at all*.³ It is not necessary to invoke, as modern logicians do, the idea of “the null set” to be able to make determinant propositions, fantastic or otherwise, about griffins. Having the concept is enough.

7. The acroam of Axioms of Intuition tells us that all appearances (as regards their intuition) are extensive magnitudes. Now, an individual object-concept has no sphere and so if its appearance is to be *understood* as an object, we require higher concepts that contain this individual under them. The individual object-concept terminates the series of marks *a parte posteriori*, but the Object (and the real thing represented in the Object) is a point of convergence *a parte priori*, in the concept of which we understand the Object as a thing-in-fact (*res ipsa*) within Reality in general. The individual object of the individual object-concept is an appearance; the thing-in-fact is the phenomenon insofar as its sensible character is concerned and the *noumenon* insofar as its intelligible character is concerned. Totality is a notion of unity in a plurality of appearances, i.e. the thing-in-the-appearances regarded from the empirical perspective.

8. Kant explained the affirmative logical *momentum* as “the logical judgment by which the subject is thought in connection with the sphere of the predicate.” This does not mean that one of the concepts is “under the sphere” of the other because concepts are either *in* or *not in* a sphere, not “under” or “over” a sphere. In the affirmative logical *momentum* one of the concepts is affirmed to be connected *in* the sphere of the other.

Now, in every determinant judgment the subject-concept is the one which is to be made distinct through general comparison (*Vergleichung*) with its marks. This idea of distinctness is one of importance in transcendental Logic. Kant tells us that distinctness is of two sorts. Aesthetical distinctness is that which is presented through clarity in an intuition [KANT8a: 546 (9: 35), 567 (9: 62)]. This is the sort of distinctness achieved through the thinking of examples, and thus involves the employment of predicate spheres of individual object-concepts in the judgment. Intellectual distinctness is that which is presented

³ Suppose you have never heard of “griffins” before and your friend Dennis tells you, “Griffins are fierce.” Your concept of “griffins” starts out as a sound-appearance that is connected as “a word I heard Dennis speak” and an individual object-concept of which “fierce” can be predicated (because you heard Dennis predicate it). These initial judgments are singular propositions because “griffins” has no sphere (and no other characteristic marks). You don’t yet know “what a ‘griffins’ is” in any other context. If you understand English grammar, you can know “a ‘griffins’ is something plural” because you know the word “are” means this, but this predication is likewise singular (“griffins” still has no sphere). If you acquire more information, e.g. you read about “griffins” in Bulfinch’s *Mythology* or Milton’s *Paradise Lost*, you acquire more characteristic marks and additional context. If you read different tales involving more than one griffin then “griffins” becomes a general concept under which the individual griffins in the stories stand. (Concepts are not by themselves either ‘universal’ or ‘singular’; only judgments are universal or singular; “griffins” begins as an individual object-concept, but does not have to remain one).

through the conception of the manifold of concepts that are contained *in* the subject-concept, thus is the distinctness of marks of the subject-concept by which the mere *form* of the representation of the concept is improved [KANT8a: 546 (9: 35)]. Coordinate marks are said to improve the *extended* distinctness of the concept, while the series of subordinate marks improves the *intensive* distinctness of the concept [KANT8a: 565 (9: 59)]. Thus, intellectual distinctness is the only sort of distinctness possible for singular judgments. Aesthetical distinctness, on the other hand, is possible for universal and particular judgments because here the individual object-concepts are not used as marks but rather as examples from which common marks are produced by means of the threefold synthesis of the *Verstandes-Actus* in sensibility. Thus, in an affirmative judgment either the subject-concept is placed *in* the sphere of the predicate concept or else the spheres of both subject- and predicate-concept are combined at the point of a concept as *copula* of their relationship. The latter case occurs in affirmative particular judgments that produce aesthetical distinctness through specific examples.

To illustrate the case of such an affirmative particular judgment, let us use the example “some boys have no sister” and employ our diagram from note 6. Contrary to what one might presume, the concept “some boys” is not contained under but rather is contained *in* the concept “boys”. (One cannot have the concept “some boys” if one does not already have the concept “boys”). It is therefore a higher concept with respect to the concept “boys” and thus as a mark it is a coordinate mark. This concept serves to differentiate a part of the sphere of “boys” under the rule of some mark of distinction. In the example we are using here, this mark of distinction is the predicate-concept “has no sister”. “Some boys have no sister” is merely a relationship by which some concepts in the sphere of “boys” (“John” in this case) are made distinct within this sphere from other concepts (“Jim” in this case). If we had more individual object-concepts illustrated in the figure (e.g., “Tom has no sister”, “Jason has no sister”, etc.) the synthesis of abstraction can produce the general concept “____ has no sister”.⁴ This concept when combined with the concept “some boys” becomes the concept “some boys have no sister” and is then merely a mark denoting the combination *under* the concept “some boys” of those individual object-concepts that carry the mark “has no sister”. The concept “boys” is made more distinct through the conception of its coordinate mark “some boys”; the predicate concept is not in the sphere of “boys” but rather in the sphere of “some boys”, and the sphere of this predicate shares in common with the sphere of “boys” all those individual object-concepts (“John”, “Tom”, “Jason”) marked by individual connections to a “sister-object.” We could do a similar example for “some boys have a sister”.

Now, intensive magnitude is a unity in which a multiplicity can be thought only by approximation to negation. It is obvious in the case of the affirmative particular judgment example just given how the concept “some boys” is an instance of such an approximation carried out on the concept “boys.” As the higher concept, “some boys” contains under it the unity of the concept “boys”; but through the judgment “some boys have no sister” it reduces the magnitude of that sphere (and is therefore an “approximation to negation,” albeit not a complete negation). For the other two cases of affirmative judgments, the higher marks (coordinate marks and the series of subordinate marks) contain less *in* their concepts compared to the subject-concept being made more distinct. (The higher marks have “less contained in them” because they are products of the synthesis of abstraction in the *Verstandes-Actus*; they “contain more under them” because of their other coordinate connections to the predicate-concept’s sphere). The category of reality as a scheme of the affirmative judgment is thus the rule for producing the form in the manifold of concepts for thinking a determination of the intensive magnitude of the subject-concept.

9. An affirmative determinant judgment is a combination according to a notion of compatibility, this notion being nothing other than the category of reality viewed from the transcendental reflective perspective. Now, every concept is a rule for the reproduction of an intuition, and concepts combined in a judgment constitute another concept. Consequently, no determinant judgment is possible unless that judgment can be exhibited in an empirical intuition. Every empirical intuition consists of both a form and sensational matter. Therefore the rule represented by a concept is one by which sensational *materia ex qua* in sensibility is reproduced in the synthesis of imagination. As was discussed in Chapter 8, the category of reality is a rule of non-contradiction in the sensuous *materia in qua* of the reproduced intuition. However, the *point of application* of this rule is at the compare in the process of synthesis via

⁴ The blank symbol, “____”, denotes the removal by the act of abstraction of the individual object-concepts. This is what makes this concept a higher concept to the concepts of relationship combined with the individual object-concepts “John”, “Tom”, and “Jason”.

the *Verstandes-Actus*. The sensuous reproduction of this *materia* takes place *in agreement* with the matter of sensation as it appeared in the intuition that first gave rise to the concepts being reproduced. There is another category, that of negation, where the rule of the category calls for the reproduced sensational matter to stand in real opposition, i.e. to reproduce a comparee that negates the one summoned up under the category of reality. In the terminology of neuroscience, the category of reality is an “excitatory” rule of reproduction, while that of negation is an “inhibitory” rule, in comparison to the representation in sensation as an effect of receptivity of the senses.

10. A concept can be rightly described as being a latent cognition from the point of view that to be conscious of a concept that concept must be reproduced in an intuition. Consciousness is “the representation that a representation is in me,” and every category is a rule for the way that representation is determined for empirical consciousness according to the transcendental schemata. In the case of the category of reality, the corresponding transcendental schema is that of “being in time,” which is described as the registration that “something fills time.” Indeed, it is this aspect of the rule of the category that gives it the name “category of reality” because only those objects that contain in their sensible reproduction this schema of “filling time” are regarded by the Organized Being as “being in empirical Reality.” The rule of this category alone is not sufficient to distinguish between a mere object of thinking and a transcendental appearance of an object; this distinction must call upon the dynamical categories of Relation and Modality as well. But no object can be posited as a thing except that its representation be reproduced according to the rule of the category of reality.

11. In a negative judgment the subject- and predicate-terms are regarded as being in opposition to each other, and the sphere of the subject-concept is set outside that of the predicate-concept. The logical “mechanics” of assembling the manifold of concept is no different in negative propositions than from affirmative propositions except as regards whether the lower concept (and its series *a parte posteriori*) are regarded as “in” or as “not in” the sphere of the higher concept. The category of reality rules that it is; the category of negation rules that it is-not. Thus, the logical distinction between the two is in the copula of the combination. As Kant remarked, “The negation . . . must be set not with the subject or the predicate but with the copula . . . for otherwise the negation of the judgment of reason affects not the form but rather the matter of the judgment, and consequently it is no negating but rather a so-called infinite judgment” [KANT8a: 220 (24: 274)]. All affirmative and negative propositions are made through the copula connecting subject and predicate.

This brings us to a subtle but important distinction between a lower concept being *contained under* a higher concept and a lower concept being *contained in the sphere* of a higher concept. All lower concepts contained in the sphere of a higher concept are contained under it; but not all lower concepts contained under a higher concept are contained in its sphere. The affirmative judgment places a concept in the sphere; the negative judgment places a concept outside the sphere. The category of negation is the scheme of the latter placement, just as the category of reality is the scheme for the former placement.

12. The category of negation from the transcendental perspective has already been touched upon briefly in note 9 above. If a concept belongs to the associated aggregate of concepts in the synthesis of reproduction in imagination, it must enter into the synthesis of the *Verstandes-Actus*. However, if the matter (*materia in qua*) of the reproduced concept is in real opposition to the *materia in qua* of other associated and reproduced concepts, the free play of imagination and understanding cannot be brought to a harmony (that is, cannot be brought to equilibrium) unless one or the other of the opposed *materia* is negated. Kant explained “negated” in this context using an arithmetic simile. If *A* is a representation of *materia in qua*, “negative *A*” = $-A$ symbolically represents the *real act* of negation in Quality. The category of negation is the rule for determining that the magnitude of a concept is to enter the synthesis of reproduction as a “negative” magnitude, which means the reproduced representation in sensibility is one that opposes the “positive” magnitude of the concept as it would be reproduced under the rule of the category of reality. It thereby “inhibits” the conflicting concept from disrupting the synthesis of the *Verstandes-Actus* and enables the free play of imagination and understanding to be brought to a harmony (equilibrium) in this synthesis.

13. The context here is “intelligible” because the magnitude of the reproduced concept is negated, which means the reproduction falls under the transcendental schema of “empty time” – i.e. *not* something represented as real being-in-time in the marking of an intuition at a moment in time. The Organized Being understands that this concept is not part of the appearance of the object.

14. Note 10 applies to the category of negation in the opposite sense. If the material content in a concept cannot be made part of an intuition in time, this is the same as to say that that its corresponding object is not “in time” at the moment of the intuition. This is a transcendental denial of the *Dasein* of the object at that moment in time.

15. Unlike the affirmative and negative judgments, which are propositions of form and pertain to the copula of the judgment, the infinite proposition concerns the matter of the judgment. In every determinant judgment the matter of the judgment consists of concepts. The infinite judgment is a judgment made on the predicate with regard to the sphere of the subject-term. To be specific, the subject-term is set outside the sphere of the predicate-term but without making a transcendental denial of the subject-object. The infinite judgment is a “positive” (rather than a negative) judgment but, rather than determining the sphere of the subject-concept, it places a restriction on the sphere of the predicate-concept. “Mary is not-a-boy” places “Mary” outside the sphere of “is a boy” but does *not* determine that “Mary” belongs within the sphere of “is a girl.” For instance, “Mary” might be the name of my boat. The category of limitation is the construction scheme for the manifold of concepts wherein the subject-object is not negated in intuition, is a judgment whereby one concept is contained under another, but is also a rule for being contained *under* a concept without being contained *in* a determined sphere.

16. As a notion of compatibility, the category of limitation rules that the subject-object is not compatible with the sphere of the predicate but does so without a negation in the appearance of the object. One can say that the notion of negation calls for the “disappearance” of the object of a concept, while limitation permits its appearance but only as a matter *in distinction*. This is what Kant was getting at when he described the transcendental schema for limitation as “a being affected by a non-being.” For example, the following three predications are true: (a) The city of Moscow is in Russia; (b) I live in the city of Moscow; (c) I do-not live in Russia. The category of limitation is the notion for thinking that the subject-term of (a) and the predicate term of (b) represent different objects. In traditional logic, at least one of these three predications *must* be false; in transcendental Logic all three can be (and are) true, although these three predications are not sufficient to determine that the-city-of-Moscow-where-I-live is in Idaho, U.S.A.

17. By “divided Object” one means an object understood in terms of both transcendental affirmations (judgments of reality) and transcendental negations (judgments of negation). These attach or unattach predicate concepts of appearances to the Object but are not by themselves sufficient to distinguish among different Objects within Reality in general. The category of limitation is the rule for understanding “this is not-that” in the discrimination of the multitude of objects in Reality. By *ens priorem* is meant the transcendental object itself, which is symbolized by the category not as mere differences of appearances but as real differences that set the object apart from other objects-in-Reality.

To borrow an example from physics, in classical physics there is no theoretical difficulty in distinguishing one object (for instance a baseball) from another object of the same kind. In quantum physics, on the other hand, when one has a system involving multiple electrons the rules of quantum mechanics state that it is not possible for any observation to distinguish between any one particular electron and any one of the others. This rule is formalized in the way in which the quantum-mechanical “wave function” of the system must be mathematically expressed, and this formal rule does in fact predict an observable consequence (which is called the “exchange energy” of the system⁵). However, the mathematical equation describing the system is nonetheless stated in terms of wave functions for all the individual electrons in the system. The rule dictates that the form of the overall equation must be such that we cannot identify any observable effect as the effect of any particular electron or subset of electrons in the system. Nonetheless, in order to be able to deduce the correct equation, we must still presume that there *are* individual electrons in the system, which is to say that the electrons lose their identifiability in appearances (so far as any possible observer is concerned) without in any way melding into each other and losing their individuality. In a manner of speaking, we could say that electrons are all “identical

⁵ Probably the most commonly encountered example of exchange energy is the permanent magnet. Ferromagnetism, which has been observed since antiquity in such things as lodestone, is a phenomenon that has utterly no correct explanation in terms of classical physics. In fact, classical physics predicts that there should be no such thing as a permanent magnet. Ferromagnetism is a 100% quantum mechanical phenomenon and, indeed, is only explainable through *relativistic* quantum mechanics.

twins” that we cannot tell apart just by observing them.

18. All the dynamical categories are notions that logically divide into a pair of complementary notions. The category of substance & accident in terms of representation-in-general is the notion of internal Relation and, in terms of propositions, is the rule for representing the copula that joins predicate-concept as accident-of-appearance to subject-concept as substance-in-the-appearances. As a connection, the copula is a form that determines one concept as the subject-concept and the other concept as the predicate concept. As a *scheme* the notion of substance & accident is a scheme of *nexus* in time because the concept understood as a substance is not bound to any one particular moment in time; rather, substance is the notion of persistence in time and so the subject-concept is part of the representations “anywhen” in subjective time. Accidents, on the other hand, are appearances marked at specific moments in time. In the free play of the synthesis of imagination and determining judgment, the concept that persists from moment to moment in subjective time is the subject; the other is the accident.

19. The category of substance & accident is the *a priori* rule of transcendental anticipation in immanent Relations. Now, an immanent Relation is an inherent connection, which means a connection in which the constituent concepts are thought as the make-up of an Object. We say that the Object “subsists in” this make-up and the constituents of this make-up “inhere in” the Object. A transcendental anticipation is an *a priori* determination of what conceptual representations are necessary in the synthesis of reproduction for the determination of a perception. In objective perception (cognition), the possibility of categorically perceiving a phenomenal object (as opposed to a merely singular appearance) requires something that “holds together” the diversity of sensible presentations across multiple moments in time. But this something is what we mean by the notion of substance, and so we say that a substance is the matter around which (*materia circa quam*) perceptions as appearances (accidents) revolve. Nothing in the mere idea of receptivity calls for a “focal point” or “center” of attentiveness; this requires an act of spontaneity, which is what the rule of the category provides under the principle of transcendental anticipation.

20. Every object connected in Nature by a connection of substance & accident is empirically regarded as a thing-in-the-world. Our term for this is *Sache*-thing. The connection in Reality of the *Sache*-thing is, however, established with objective validity only in experience. Nonetheless, the dialectic of pure speculative Reason leads to the conceptualizing of purely intelligible characteristics, and those intelligible marks that are posited without the possibility of immediately connecting them in any actual experience are transcendent, which means these ideas of the *Sache*-thing lack real objective validity. There can be no real accidents except only that these accidents be possible in actual appearances through receptivity. The objective validity of intelligible marks is the merely practical objective validity of being necessitated for the possibility of making a unity in experience. For example, “mass” in physics is an intelligible object without which the phenomenon of weight in one *Sache*-thing could not be unified with the phenomenon of weight in other *Sache*-things. It is the idea giving unity to the idea of “weights” as one Object.⁶ Mass is practically necessitated (made necessary) as a point of connection for diverse objects in *one* Reality-in-Nature. The *noumenon* of mass subsists in the inherence of phenomena of experience connected as

⁶ Strictly speaking, in physics this role is filled by what is known as “rest mass.” This distinction comes from the theory of relativity in which “inertial mass” is a function of rest mass and velocity. There is also another analogous idea, called “effective mass,” used in solid state physics as a convenient description of the effect of the arrangement of atoms in a material on the motion and energy of conduction- and valence-band electrons. At present physics is also working on another idea, called the Higgs field, that is intended to provide a deeper explanation of rest mass in terms of something called the Higgs boson. An experiment to test this idea is expected to become possible to perform within the next few years. (For a readable description of this theory and its current issues, see the article by Gordon Kane, “The mysteries of mass,” *Scientific American*, vol. 293, no. 1, July, 2005, pp. 40-48). Time will tell if this idea becomes more than a transcendent speculation. To become *transcendental* and gain the status of a *Sache*-thing, the Higgs field must be an idea that makes testable predictions contrary to what can currently be predicted and tested from the idea of rest mass alone, and all such testable predictions must run true in actual experiences. If it predicts some phenomena correctly and others incorrectly, then the idea still contains an antinomy of pure Reason, which is the hallmark of a transcendent idea. Should this come to pass, what physics must not do is pile one untestable and *ad hoc* speculation upon another to try to fix or rescue the idea. If it does, the science will lose itself in a Platonic-Hegelian spiral.

accidents of appearances at one intelligible Object (mass as a substance). Mass as a thing stands at the boundary of possible experience, but mass as a thing-in-itself crosses over and disappears into the black night of pure speculation.⁷

21. The hypothetical proposition connects two categorical propositions as antecedent (which contains the ground) and that-which-follows (consequent proposition or ‘result’). The category of causality & dependency is a scheme of time-ordering for setting up appearances in a specific succession. We see this reflected in the names logicians gave to the terms in the hypothetical proposition. The basis for a first determination of connection under causality & dependency is merely a succession of appearances in the synthesis of apprehension, but once formed the connection also serves to order sensible succession in sensibility in the synthesis of reproductive imagination. Early in life this scheme underlies childish behavior that we often describe as the “*B* followed *A* therefore *A* causes *B*” fallacy. Piaget called this the child’s “magico-phenomenalistic” conception of causality and documented many cases of childish behavior in the sensorimotor stages of intelligence that demonstrate it. The connection between the two categorical propositions in a hypothetical judgment is called the *Consequenz* (instead of the ‘copula’), and because the categorical propositions are empirical rules, the determination of a hypothetical judgment is a rule about rules and an external Relation of condition to conditioned. The hypothetical judgment is a judgment of the truth between two categorical propositions, and the criterion for truth in the scheme of the judgment has a two-fold character: the positing connection (*modus ponens*) and the rescinding connection (*modus tollens*). The *Consequenz* in the judgment is not contained in either the antecedent or consequent propositions but rather is provided by the scheme of the judgment (that is, by the *a priori* notion of the category as the rule mandating a connection of succession in time).

22. That human beings anticipate events before they occur, and that human beings demonstrate surprise when anticipated events fail to occur as expected, are two facts in experience that demonstrate the application of the rule of the category of causality & dependency in thinking. A transeunt Relation is a cause-and-effect Relation between two Objects (representing equally well either two different transcendental objects appearing in succession or the *Existenz* of one transcendental object at two different moments in time). The transcendental schema for the category is succession in subjective time, and the category in application in the synthesis of reproductive imagination gives a rule for the synthesis in time-order for transeunt connections in the synthesis of comprehension. The act of determining judgment for this category orders the synthesis in time for sensibility, and it is in this context that we call causality & dependency the notion of the *materia circa quam* in the determination of transeunt Relations.

23. An event is a “something” that we place “in Nature” rather than “in the world.”⁸ Regarded as a *thing*, an event differs from a *Sache*-thing in that we say an event is a “happening” rather than the object that the event “happens to.” Our name for an object of this type is *Unsache*-thing. The *Dasein* of any *Sache*-thing is known in no other way than by a succession of change in appearances in subjective time, and the category of causality & dependency is the notion by which this *Dasein* becomes known to the Organized Being. It is because this category makes possible the synthesis of productive imagination in which a merely possible prior condition can be thought as an anticipation of Relation for a phenomenon, the category is a rule for synthesis *a parte priori* in the manifold of concepts. It is precisely by means of this special type of anticipation that concepts can be taken from the empirically given in sensation to the merely intelligible in reasoning. It is also by means of this category that ideas of objects can be taken across the boundary of possible experience into the realm of the transcendent idea. Mere connection by the rule of causality & dependency alone is not sufficient to establish objective validity.

24. The category of community is the scheme for carrying out a division of the sphere of a concept into reciprocally-determining subspheres as a Relation among the subject-concepts (substantial objects) in this sphere. These subspheres are coordinated *under* the divided concept. Where judgments in the sphere of

⁷ If the Higgs field theory is experimentally confirmed, mass will lose all possible claims to ontological status as a *Sache*-thing. It will become a purely mathematical relationship of community that arises from the terms in a function known as the Lagrangian, which is a function for computing the difference between kinetic and potential energy. Rather than saying, “particles have mass,” Higgs field theorists are fond of saying, “particles *behave as if* they have mass.” Mass as a consequence could not be a thing-in-the-world but only a relationship-in-Nature.

⁸ Recall that by thing-in-the-world we mean an object regarded under the category of substance & accident.

the divided concept are hypothetical it is the subject-concept of the consequent proposition that is used in the determination of the division; where a judgment in the sphere is a disjunctive proposition *C* the scheme requires that the division of sphere not place sub-spheres of *C* in different subspheres of the higher divided concept *H*. Each division of the sphere of *H* must contain at least one categorical proposition. When the concept of one subsphere is held-to-be-true at a particular moment in time, those of all the others are reciprocally determined at that moment, and precisely one concept of a subsphere of *H* must necessarily be held-to-be-true in every cognition involving *H*. For example, if the-pack-of-cards-is-on-the-table then the-table-is-under-the-pack-of-cards is true and the-table-is-over-the-pack-of-cards is simultaneously determined to be false (negated).

25. The transcendental schema for the category of community is coexistence in time. Specifically, this means the co-determinations of the accidents of substances in the same moment in time. One of these substances is the substantial object of the divided concept *H*, the other is a substantial object of one of the subspheres of *H*, e.g. “the student will get a grade of *A* in his course or will get a grade of *B* in his course or will get a grade of *C* in his course, etc.” This example is obviously a transcendental anticipation relating the divided concept of the student with the mutually exclusive possible grades that can be given. Once this disjunction has been constructed, when these possible subspheres re-enter the synthesis of reproduction (e.g. when the student actually receives a grade) the rule of the category provides the *materia circa quam* of mutual opposition in the synthesis of the intuition so that it is not possible for the student to receive an *A* and also receive a *B*, etc. More generally, the members of the disjunction are set in opposition to each other during the synthesis of reproduction such that only one can be affirmed and the others are denied in the same intuition. As another example, “*X* is to the left of *Y* and *Y* is to the right of *X*” or “*X* is to the right of *Y* and *Y* is to the left of *X*” are both possible as transcendental anticipations of a judgment, but “*X* is to the left of *Y* and *Y* is to the left of *X*” is not a possible anticipation.

It is important to note that the category of community is a rule for setting up Relations of real opposition in sensibility, but that this is not the same as determining a transcendental negation (which is a judgment of Quality). The opposition of representations in sensibility under the rule of the category of community is reciprocal opposition; this means only that specific co-determinations of object terms are set up as opposed and not that one or the other object term in the judgment is negated. “*Y* is to the left of *X*” is given a negative magnitude relative to “*X* is to the left of *Y*” so that in sensible re-presentation these representations cancel one another. In formal logic, where we make abstraction from all material considerations in propositions, it is possible to write out a symbolic conjunction “(*X* is to the left of *Y*) AND (*Y* is to the left of *X*)” because the predicate “to the left of *Y*” is not the logical complement of the predicate “to the left of *X*”. Realizing that this formal conjunction is self-contradictory does not fall within the jurisdiction of merely formal logic because this realization requires another (empirical) proposition, namely “(*Y* is to the left of *X*) = not(*X* is to the left of *Y*)”, be set up by the logician. In transcendental Logic, where abstraction from the material contents of representation is not made, this auxiliary proposition is not needed in a *real cognition* because a real cognition is a cognition *in a context in Nature*. This context in Nature is missing from mere formal logic. With regard to the example just used, “to the left of” has an *empirical meaning* within a determined context and can have different empirical meanings in different contexts. (This is why we can write the contradictory conjunction above; the context in which this conjunction is thought is different from the context we use when we make a real judgment concerning real objects in objective space).⁹

26. The idea of an *ens superiorem* is the concept of an Object regarded as a state of Nature. The empirical reflective perspective for the category of community is the perspective dealing with the employment of this category in judgments under the supervision of Reason. Judgments of community deal with the coexistence of objects in time in terms of the representation of the Relation of things-in-the-world in their *nexus* as objects-in-Nature. These judgments serve the purpose of perfecting one’s understanding according to a standard gauge of Reason, which we call the transcendental Ideal. The regulative principle of Reason in the employment of determining judgment here is the transcendental Idea of *ens summon*. This Idea regarded from the theoretical Standpoint states that the representation of a thing in Reality must

⁹ The problem of incorporating meanings into formal logic, especially “linguistic” meanings, traditionally is assigned to *semantics*. Semantics attempts to set up formal rules assigning “semantic values” for the expressions of statements in a formal language. But semantics + symbolic logic is not transcendental Logic because neither traditional semantics nor symbolic logic adopts Kant’s Copernican perspective.

contain a notion of substance & accident and be connected in a series as conditioned to condition. The category can therefore be viewed in terms of the synthesis of the other two categories of Relation. However, as is clear from note 25, there enters into this regulation the notion of meanings, and this notion ultimately belongs to the practical Standpoint. There the Idea of *ens summon* is the idea of structuring actions in accordance with a perspective of the transcendental Ideal of a *summum bonum* (highest good). Meanings ultimately are grounded in actions, and the determination of any action is entirely a *practical* determination serving the categorical imperative. The Ideal seen thus is that of perfect equilibrium in the whole of the organization of the Organized Being. Judgments serving to perfect understanding are judgments that serve to perfect the structure of equilibrations. Perfection is evaluated (as a *bonum*) according to the purely practical imperative of pure Reason, and so acting to perfect is ultimately understood by and grounded in the practical Standpoint of the Critical Philosophy. From the theoretical Standpoint, the Ideal under *ens summum* is the representation in the manifold of concepts of a state of perfect understanding of world-Nature in *one* Nature. The theoretical Ideal serves the practical Ideal.

27. All the categories of Modality are notions of the metaphysical *nexus* of the manifold of concepts. As such they are notions of the connection of cognition as forms of knowledge in the Organized Being's faculty of pure consciousness. The empirical idea of this metaphysical *nexus* is the form of coherence in thinking. From the logical reflective perspective the category of possibility & impossibility is the scheme by which a merely problematic proposition is synthesized through spontaneity in thinking. Such a proposition expresses congruence of the concept with its object *with consciousness* of the lack of an objectively sufficient ground for the holding-to-be-true. This connection in consciousness is represented in the copula of a (categorical) judgment, e.g. *X* might-be *Y*. It is in the character of a Modal judgment of possibility & impossibility that the negative proposition, *X* might-not-be *Y*, can also be represented in sensibility, i.e. there is no real cancellation (real opposition) set up between subject-representation and predicate-representation in the synthesis of reproduction in imagination, and both representations can harmonize with the presentation of the aesthetic Idea. In one way Kant's choice of terminology for this category is unfortunate because "impossibility" if taken to assert a determination *of an object* can mean nothing else than that the appearance cannot be represented in sensibility. But the modal categories never add anything to the determination of an object; they are mere relationships between the representation and the organization of understanding (and this is a purely subjective relationship).

The category always denotes that the proposition is the product of pure spontaneity without an accompanying contribution in the representation made through the power of receptivity. The sensational content in the representation is sourced via the synthesis of imagination, and while this synthesis must presuppose previous empirical concepts from which *productive* imagination can be supplied with rules for the re-presentation of the *materia ex qua* of its synthesis, this is in no way the same as when such *materia* is an effect of receptivity. Thus, "the universe might-have started with a Big Bang"; on the other hand, "the universe might-not-have started with a Big Bang." Neither proposition is other than problematic because an objectively sufficient ground *in an actual experience* is absent, and none can presently foresee any means by which such a ground could be obtained. The *fact* the Big-Bang *hypothesis* aims to explain is the Hubble observation of red shift in the light from distant galaxies. It is not a fact that this shift has no other explanation, which would be the condition necessary to turn the hypothesis into a necessary idea (and thereby make it into a factual theory). It is for this reason that it is quite wrong to tell someone that the Big Bang *really* happened or that it really did not.

28. The categories of Modality from the transcendental reflective perspective are notions by which mere representations are given a sign contributing to the empirical meaning vested in an Object. However, a meaning does not add anything at all to the determination of the object. A meaning is a determination of how the object and its determinations are referred to understanding and its empirical use, to the empirical power of judgment, and to Reason in its application to experience [KANT1a: 322 (B: 266)]. Now, all such referrals ultimately revolve around how the representation in intuition serves the categorical imperative of pure practical Reason. Such a determination is always purposive, and the sign given to a concept by a category of Modality therefore always indicates for reflective judgment the manner of this purposive referral accordingly as the representation of the object in intuition is to be judged as expedient or inexpedient for a purpose of Reason. It is by this *nexus* established between the processes of determining judgment and reflective judgment (mediated through the synthesis of apprehension) that unity in apperception of all perceptions is served under the regulation of the fourth psychological Idea. The category of possibility & impossibility determines that this expedience or inexpedience is merely

problematical. It signifies an understanding of how the Object might or might-not be meaningful in a purposive context.

29. Coherence is the necessary form of complete congruence among all Objects in the *nexus* of judgment. It is a *sine qua non* for understanding the unity of one Nature. However, the holding-to-be-true in one's understanding of Nature has a degree of certainty, and it is upon the basis of this degree that we commonly distinguish between opinion, knowledge of empirical fact (commonly called belief), and knowledge of rational fact. Opinion is holding-to-be-true with consciousness that one could be wrong. The category of possibility & impossibility regarded from the empirical reflective perspective signifies opinion, and this is what is meant by the phrase "conceptual coherence of the concept in the context of Nature."

30. An assertoric proposition is one that admits of no consciousness that things should be otherwise than as asserted in the proposition. In categorical form this is the proposition "I think *x is y*" or "I think *x is-not y*" or "I think *x is not-y*." It is thus appropriate to call such a judgment a judgment of belief. Under the regulative principles of Reason, the condition of validity for such an assertion is actual sensation in perception. However, the immediate apprehension of sensibility through receptivity alone carries no mark of determining judgment, and so the assertoric proposition always involves a synthesis employing the combined powers of receptivity and spontaneity. Receptivity by itself can give us an empirical intuition recognized by an individual object-concept, but such a concept has no context until it is connected in the manifold of concepts, and it is in the *making* of this connection that spontaneity in the synthesis of comprehension determines an Object. Determinant judgments are always combinations of concepts, and we say that the notions subsist in the form of the judgment and not in the concepts which are the matter of the judgment. The actuality of an Object is the judgment of the *Dasein* of the object on the grounds of the real in its intuition, i.e. on the consciousness of being affected through the receptivity of sensation, and thus ultimately *a parte posteriori* on individual object-concepts, which come to us in no other way than through the power of receptivity. The *Nichtsein* of an Object is the judgment of the non-being of an Object grounded upon consciousness that the object does not affect our senses through sensation in some individual object-concept.

31. Denial of the copy-of-reality hypothesis is at the same time an affirmation that the transcendental object does not and cannot imprint the form of its representation in intuition. An intuition is that in sensibility which has been marked as an objective perception at a moment in time, and this marking follows the principle of the formal expedience of Nature. From the transcendental reflective perspective, the category of actuality & non-being signifies that the concept is referred to consciousness with expedience or inexpedience in its re-presentation grounded in the real in sensation. We can call this referral the *real* expedience or inexpedience of the Object thought in a determined context in Nature. Although it is true that as an Object grows in the extensive magnitude of the sphere of its concept other notions of Modality can take part in the overall determination of the Object, the *real scope* of the concept is that part of its manifold judged under the Modality of actuality & non-being (*Dasein und Nichtsein*).

32. The manifold of concepts constitutes the form of one's objective understanding of Nature. This understanding begins with experience, and in this context experience can be called the mooring line of Reality. Real coherence in Nature demands that objects regarded as things-in-the-world be determined as to their *Existenz* so that the concept of the object has a real scope in Nature. Only in this way can consciousness of the *Dasein* of the transcendental object be provided with a representation cohering in *one* Nature. Coherence in the real scope of an object is what is meant by phenomenal coherence, and by this phrase we are reminded that all real experience is empirical experience of phenomena.

33. Previous assertoric connections of causality & dependency and community set conditions in the manifold of concepts for later judgments. Subsequent problematical judgments that are conditioned by such previous judgments, especially those problematical judgment made in anticipation of actual experience (which are therefore relatively *a priori*) must cohere with these conditions and not produce contradictions in the spheres of these assertoric conditions. When a problematic judgment has such a coherence in the manifold and when also its contradictory opposite sets up a real opposition in this same sphere, the problematic judgment is not merely possible but rather is necessary (in the sense that it is made necessary by the previous assertoric judgments). On the other hand, if the problematic judgment and its contradictory opposite can both be made to cohere with the previous assertoric judgments then the

connection is contingent. The category of necessity & contingency as a scheme for the making of an apodictic judgment is merely the rule for determining and keeping track of relationships of coherency in the manifold of concepts when later *a priori* judgments are made in anticipation of actual experience. Connections of necessity & contingency provide the conditions by which congruence between an object of actual experience and the concepts of this object in Nature are evaluated. For (categorical) necessity, *X* must be *Y* if the concepts are congruent with the object. For (categorical) contingency, *X* can be *Y* and the concepts remain congruent with the object. Note, however, that these are two faces of the same Modality because if an apodictic judgment is gainsaid by later experience, congruence between concepts and objects must be restored by additional conditioning. Therefore, the category of necessity & contingency when viewed from the logical reflective perspective as a scheme is not only a scheme for establishing which of two opposing problematical judgments will be connected in the manifold, but is also a rule establishing a condition necessitating an accommodation in this manifold when anticipation is thwarted by actual experience.

34. Every determinant judgment in the manifold of concepts is subject to the condition in the synthesis of apperception that the combination made by that judgment was judged to be formally expedient by the process of reflective judgment. However, the ground for this judgment of expedience is merely subjective (because reflective judgment deals in affective rather than objective perceptions). Merely because the aggregate concept of a determinant judgment was judged to be expedient upon a previous occasion at some particular moment in time is by itself no guarantee that the aggregate concept will be likewise judged expedient when it is reproduced via imagination in some other synthesis at some other moment in time. The affective perceptions in sensibility might be different from what was perceived before, and these affective conditions affect the outcome of a reflective judgment. Thus if this subjective power of judgment is to be able to provide such reflective judgments as to make possible the construction of a *systematically objective* idea of Nature, then among the signs determined for concepts there must be one such sign that in the synthesis of sensibility *guides the judgment of formal expedience*. This is the sign provided under the rule of the category of necessity & contingency. Seen in the transcendental reflective perspective, the rule of this category provides what we might call a “reminder” that there is a more global expedience presented in the aggregate concept, and thus *preservation* of the aggregate concept is itself a condition of formal expedience. By this sign the investment of meanings *as a system of meanings* is made possible.

35. The transcendental Ideal of the principle of *ens entium* is absolute and necessary coherence in Reality. This is the standard gauge for the direction of determining judgment by pure speculative Reason. Viewed from the empirical reflective perspective the marks laid down by the category of necessity & contingency are marks of coherent direction by which the process of perfecting understanding is guided and by which understanding can be made systematic.