



Griot : Revista de Filosofia, Amargosa - BA, v.23, n.1, p.87-100, fevereiro, 2023

https://doi.org/10.31977/grirfi.v23i1.3177 Recebido: 17/11/2022 | Aprovado: 10/02/2023 Received: 11/17/2022 | Approved: 02/10/2023

# KANT'S DYNAMIC METAPHYSICS: KANT'S THEORY OF JUDGMENT AND THE NATURE OF THE THEORETICAL KNOWLEDGE OF CONSISTENCY IN EMPIRICAL REASONING

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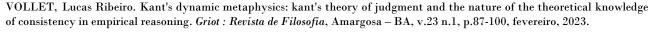
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#### ABSTRACT:

Kant's theory of judgment involves his answer to the question "How is knowledge of the pattern underlying intentional strategies of objective - true and justified - representation of empirical events possible?" When we problematize this question, the problem of the scope of our notion of consistency in empirical reasoning emerges. We will argue in this article that Kant's theory includes a thesis about the circular nature of our patterns of consistency, based on the ability to protect the conceptual presuppositions that harmonize knowledge of truth as opposed to falsity in any paradigm of theoretical reflection. This thesis allows Kant to develop a foundationalism about the knowledge of the content of judgments (the ability to recognize conceptual correctness or rule consistency) without committing to a static and transcendent view of the ideal object of our assertion strategies. In our view, this view is still one of the most competitive in describing the necessary - though not static - status of the propositions of empirical science.

KEYWORDS: Kant; Categories; Consistency; Metaphysics; Empirical Science.

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# The sterility of the pedagogical content of examples and the absence of formulas for judging

Kant's approach to logic is unique. His memorable canonization of Aristotelian logic as the complete state of the art was less a compliment to Aristotle than a description of the limits of the discipline. Nevertheless, the richness of Kant's conception of logic goes far beyond the problems that preoccupied Aristotle. The way he would answer current questions of completeness and consistency is unique. To understand this, we need to introduce his view of judgment. As Robert Hanna describes, "by sharp contrast to both the psychologistic and Platonistic camps, Kant's theory of judgment is at once cognitivist, antipsychologistic, and anti-platonistic" (HANNA, 2018, p. 3). Judgment involves the ability or competence in the presentation of content that teaches how to distinguish between the examples and concepts that contribute to the truth of a proposition. In argumentation, judgment represents the ability to discern the contribution of premises to the conclusion according to a rule. This competence, although psychological, has an objective content. Without engaging in the most complicated philosophical polemics, we can say that the objective content of a judgment is the reference to a norm or parameter of judgment. When we say that Kant was not a psychologist or a Platonist, we are saying something about his conception of the nature of this parameter. For him, the parameter of judgment is neither a psychological fact such as a habit or prejudice, nor a real kind or idea (a Platonic object). Let us continue this discussion to reveal the details and pillars of this conception.

Kant thinks examples do not help one to judge (KrV A 134/ B 174)<sup>2</sup>. He is not an extensionalist. The philosopher admits that we can know a concept not only from the perspective of the rule that indicates which examples it excludes, but also by cognitively deepening the content of the concept, as in the case where we judge that:

If Someone said that every body either smells good or smells not good, then there is a third possibility, namely that a body has no smell (aroma) at all, and thus both conflicting propositions can be false. (KrV A 504 / B 532)

This apparent curiosity, that one and the same instance can confirm one of two contradictory judgments without refuting the other, is not a paradox for Kant. For unlike a pure empiricist, the author believes that examples do not carry so much weight for proof. For him, the *matter* of judgment - either the conceptual or the intuitive matter-thing - is a mere "manifold." With this word he emphasizes the disunified nature of this matter. It does not teach anything uniform. Its confirmatory status is chaotic; it does not convey unity of credibility to the proposition or statement. Thus, it does not teach us to represent its knowledge by a standard for judging similar cases.

This has been called "poverty of stimulus" (COOK &NEWSON, 1996, p. 81-85) and anticipates the Quine-Duhem thesis of underdetermination of theory by empirical evidence. We will not go into the controversy between conceptualism and non-conceptualism here. To solve the problems we propose, it is important to ensure that there is purely conceptual knowledge, knowledge whose content does not depend on its mere extensional representation. This independence should not be understood as unrestricted freedom of the imagination, but as evidence for the existence of a sphere of extra-empirical conditions (an idealism of a special kind). The class of conclusions about Kant's theory derived from this conception of judgment is broad, but it at least means that the conceptual content of judgment goes beyond the mere rule of application to instances (extension).

 $<sup>^2</sup>$ References to the Critique of Pure Reason according to Kants gesammelte Schriften (KGS), Akademie der Wissenschaften. KrV - (A 1781/B 1787)

In this excerpt, we see his thesis about what kind of logical reasoning is involved in the knowledge of someone who judges: "Transcendental logic also considers the judgment as to the value or content of the logical statement, through a purely negative predicate and as to the benefit that results from it for the whole of knowledge" (KrV A 72 / B97). Kant's distinction between a general and a transcendental logic aims at explaining differences in conceptual cognitions. It serves to show that in judging we can learn more than the mere extension of a concept and its application. But what we learn, according to Kant, is delicate and subtle, in the sense that it involves conceptual enrichment. It is subtle because it involves purely conceptual content, and we cannot simply idealize the object of conceptual content without dangerously enriching our ontology, which has consequences for the consistency and completeness of our reasoning. The author calls this dimension of studies transcendental to distinguish it from that in which the logical codification of our reasoning is merely formal (general logic). The transcendental dimension is also what distinguishes this reasoning from the dialectical one. Both are subtle, if we understand by it the fact that they do not represent direct propositional knowledge of instances/examples, but propositional knowledge enriched by a spontaneous faculty. The subtle content of a representation is synthetically encoded in the perception of that representation. Only the transcendental (non-dialectical) content of a synthetic representation can be a priori without causing irresolvable conflicts of reason with itself.

All this theoretical framework serves to develop a sophisticated theory of judgment. In the Kantian conception, to judge is to learn how to explore the conceptual features of a theoretical horizon. These cannot be inferred by using formulas of general logic: "general logic can give no precepts to the power of judgment" (KrV A 135 / B 174). For Kant, general logic (KrV A 54 / B 78), which deals with the empty form that abstracts from a cognition (KrV A 56 / B80), is nothing but the static image of the judgment activity of subsuming instances. As it is, it is harmless. It serves its purpose of presenting examples of arguments and abstracting their main features. But when one tries to make it a logic of truth, general logic is prone to become a speculative concept that tries to project its examples like supersensible ideas (a dialectic): "general logic, as a putative organon, is called dialectic" (KrV, A 61/B 86). To avoid that, one must avoid using general logic as a recipe or formula to apply the 'true predicate'. Judgment in itself cannot be taught by repeating these formulas. A judgment can only be corrected by another judgment (KrV A 131/B 172). This premise corresponds to what Hanna called the centrality thesis:

judgment, alone among our various cognitive achievements, is the joint product of all of the other cognitive faculties operating coherently and systematically together under a single higher-order unity of rational self-consciousness. (HANNA, 2018, p. 3)

Given the centrality of judgment and the fact that, for Kant, judgment is the general relation of subsuming interpretations and that judgment cannot be taught by formula or example, the curious result is that one cannot set up a program that answers the question, "Is this knowledge consistent and complete?" The judgment parameter is never based on an object or natural fact that allows a non-circular account of the reasons for judgment.

# Semantics and Strategies of Judgment

The difference between objective and subjective representation that Kant invokes in the Transcendental Deduction and that forms the core of his response to the skeptical challenge thus refers to a philosophical explanation of a distinction that common sense typically makes. It frames the difference between bias and theoretical choice that precedes common sense's distinction between emotional reactions and rational behavior. It also frames the difference between arbitrary Synthesis-liaisons (arbitrary associations) on the one hand and organized

judgment strategies on the other, which this time precedes the common sense distinction between superstitions and rational hypotheses. Finally, it establishes the difference between what is strategic in a fallible framework of judgment and what is arbitrary and superstitious.

In Kant's technical terminology, this difference is between occasional association and the construction of matter (schemata) that encodes the congruence between concept and intuition. The ability to represent concept formation in order to systematize the association of instances and examples is a skill that requires certain mathematical tools - such as dealing with diagrams, sets, and structural idealizations: "Once a diagram of a general conception is attained it is possible to reason about that object by manipulating and experimenting with the diagram according to certain rules of the system" (PIETARINEN; SHAFIEI; STJERNFELT, 2019, p. 5). Kant's theory anticipates these terms used by modern semantics in his theory of a priori syntheses. But he does not merely anticipate them: he traces the philosophical framework that defined the problem before the semantic revolution took place.

When someone puts together a referential strategy, they structure the *a priori* basis to guide or program the exclusion of what does not fit the representation. In cases where the reference is missing, we need a rule to program a uniform way to search for that "thing" At the limit, this program is codified in a primitive conceptual group, or in the rules that set the limits of what can be represented for that system. It follows that the supposed "thing" is not a thing in itself, but only a maximization of the consistency of interpretation to exclude what is "not this thing".

Because of the semantic revolution that took place in philosophy after Frege's work (1892), the entire academic world regrets the little interest Kant showed in the subject of language. Kristi Sweet echoes this regret, saying that "it is almost unbelievable that Kant was silent on the subject" (2019, p. 153).

Kant, of course, did not provide a full semantic description of our mediating devices. Moreover, the whole discussion of the content encoded in a sign to express what is said was not of general interest to Kant. The point at which his considerations intersect with semantics arises necessarily from the fact that the study of the intentional content encoded in a sign cannot be readily separated from the problem of the truth or falsity of the proposition. This is a statement made independently of other textual evidence from the Kantian canon, since we declare that one problem (the semantic one) is inevitably contained in the other problem (that of truth-finding or judgment). Of course, we need to clarify where this inevitability comes from. And this means that the problem of judgment - about the knowability of truth - is equated with the semantic problem of encoding a distance to untruth in speculation. In other words, the empirical scientist who works on the construction of syntheses that justify the codification of a rule linking concepts and intuitions must develop superstructures that select truths that are more structural than others.

We can profitably compare this perspective with Frege's view of semantics to deepen our understanding of Kant's view of logical knowledge. We will use Dummett's account of Frege. We justify this by arguing that Dummett's reading clarifies the relevant aspects of Frege's position and has the advantage of contextualizing it for the purposes of the current discussion.

### Semantics, harmony and categories: the stable conditions to judge the soundness of reasoning

What Kant has in common with the modern semantic view is the idea that knowing the formula for generalizing a norm or a parameter of meaning is not equivalent to judging that the pattern mentioned is true, i.e., that an intuition applies to it. A complete specification of the categorial elements that make it possible to construct meaningful propositions is not *per se* knowledge of the difference between truth and falsity, nor is it knowledge of the prediction of

true propositions by a theory of proof or natural deduction. This can be described as the thesis that there are no guarantees that logic and semantics must or should agree. We will see how this thesis compares with Frege's. According to M. Dummet (*The Logical Basis of Metaphysics*):

although there exist these two salient differences between logic and the theory of meaning, the two subjects are closely allied, as is evident from the fact that in the work of Frege, from which the modern development of both of them originates, they widely overlap. (1993, p. 22)

#### The author continues:

logicians usually take a proof of soundness or of completeness for a logical theory at its face value. A proof-theoretic characterization of the relation of logical consequence is based on the means whereby we recognize the relation as obtaining. A semantic characterization of the relation displays the interest that the relation has for us. (DUMMETT, 1993, p. 22).

Dummett is demonstrating here the inevitable circularity of semantic justification of logical reasoning:

To show that a form of argument is valid in the semantic sense requires some kind of reasoning. If the reasoning itself involves the form of argument to be justified, then, most philosophers suppose, the justification is in effect a *petitio principii* (1993, p. 23)

The reasoning involved in classifying an argument as valid presupposes the categories or meaning of the logical constants that generalize that knowledge. Thus, when semantic knowledge coincides with logical knowledge, something preliminary has already been constructed and can no longer be problematized. The moments in which we can logically express semantic truths are those in which we have already solved a prior problem, namely, the maximal consistency of a semantic paradigm for the predicate "true." Sentences that are true because of language elements that program interpretations incapable of converting truth to falsity can still be inconsistent, that is, they can still project two incompatible extension interpretations. Paradoxes like that of the liar show how inconsistent certain meaningful compositions can be. The only way to guarantee consistency within a parameter of meaning (a standard of judgment), or consistency between semantics and logic, is to solve an earlier problem, that of stabilizing the language in which truth is defined-to avoid designing an interpretation in which the truth of a proposition is compatible with its falsity. In another work (Frege, 1973), Dummett states:

...such a semantic – such a notion of 'interpretation' as applied to sentences constructed after the pattern of Frege's symbolic language – provides us with an account of the truth conditions of the sentences of the language that is entirely adequate for the purposes of the logician, and thus enables him to define the semantic notion of logical consequence and to frame the conceptions of soundness and completeness for a given set of formal rules of deduction. (DUMMETT, 1973, p. 90)

In the context of Fregean extensional semantics, the question of completeness and consistency can be answered by programming a rule or algorithm that would be the mathematical equivalent of someone's knowledge of how to competently derive all instances of true sentences in a language using a minimal correlation pattern (Tarski's bi-conditional: 'p' is true if and only if p). For Tarski, "there is no conflict between the notions of truth and proof in the development of mathematics; the two notions are not at war, but live in peaceful coexistence" (1969, p. 77). In other words, the semantic knowledge relevant to the logician is the ability to use the truth

predicate harmlessly by catapulting the predicate "true" to all propositions that are not false on the same mechanical principle. This is the ability to use the truth predicate in a cumulative knowledge platform in which that predicate projects a generalizable set of possibilities whose logical knowledge can be transferred to more complex compositions without losing its logical contribution. When this is the case, the notions of "possible truth" and "provable/provable" coincide, and semantic knowledge coincides with logical knowledge. If this is not the case, we were not competent enough to slingshot the semantic use of the truth predicate cumulatively, and consequently incompatible possibility tables would equally predict the use of "is true" - leading to inconsistencies. In this case, the theory of truth or semantics diverges from the theory of consistency and completeness. This circumstance is usually just unfortunate, but may also be part of the deliberate strategy of an aspiring deceiver or fraudster.

Languages in which there are sentences which are true under certain circumstances but which are not sufficiently different from false sentences under the same circumstances are not "learnable" without enormous onus, since it would require too many rules and exceptions to show a child or an adult incompatible instances of a sentence to teach him how to use the phrase correctly. Therefore, the logical ability to reconcile possible truth with truth-functional provability corresponds to our competence in using a language and our knowledge of the difference between sense and nonsense in the semantic framework. That is why the logical ability to reconcile possible truth with truth-functional provability corresponds to our knowledge of the difference between sense and nonsense within the semantic framework. It is this knowledge that enables us to recognise logical constants as those that are self-justifying, that is, governed by laws that determine the sustainability of language to justify its consequences. Dummett calls this a condition of harmony that goes beyond and guarantees the condition of consistency:

we must impose certain conditions on the total set of logical laws we are stipulating to govern a logical constant. The first of these was harmony, a stronger requirement than consistency, but one which guarantees it. (DUMMETT, 1993, p. 246)

Discrete intensionalists — or tolerant extensionalists — assume that this exhausts our knowledge of "sense" and our ability to ground the idea of analyticity in logical demonstration. This means that some of the interlaced expressions in a theory of meaning will behave like logical truths, and these we can call analytic. Non-tolerant extensionalists, like Donald Davidson, see this as evidence for the abolition of the idea of Sense or the mystical part of meaning. For him, truth-conditional semantics exhausts everything: "essential to the idea of meaning that remained to be captured [once we have] a characterization of the predicate 'is true' that led to the invariable pairing of truths with truths and falsehoods with falsehoods" (DAVIDSON, 1967, p. 312).

Kant goes in a similar direction, but he is much more radical. Kant had reasons to deny that any extensional formula or algorithm for deriving truth can do the job of justifying our dynamic synthetic a priori knowledge. In order to distinguish between sense and nonsense in empirical inquiry, our intuition must be susceptible to the dynamic conditions of schematization. There is no transcendent being, idea, or intellectual intuition that guarantees correspondence between our semantic categories and empirical intuition. If the choice of interpretations used to define the meaning of a sentence coincides with the ability to logically predict or prove that proposition, then this is not a psychological guarantee or a gift of nature. When it happens, if it happens, it is knowledge of the state of our meaning consciousness that predicts that some of our true sentences behave like Tarskian bi-conditional ('p' is true iff p) and that some of our analytic propositions behave like logical truths. But this is not trivial, especially not under empirical conditions. The same conditions under which a sentence would be false may be used to consider it true under empirically unfavorable circumstances. This is the fate of synthetic propositions:

They depend on the condition of information to encode their intentional correlation and the distinction between truth and falsity.

The coincidence between an application paradigm for the predicate "is true" and the extensional representation of the consistency of this parameter is a historical coincidence that represents the state of sentences that can be formed by categories. Categories, in the Kantian context, are understood as necessary and universal rules of thought that coordinate the sensible content around a projection or X and define the limits of what can be represented in connection with the notion of "I think" that characterizes self-consciousness. The title "synthetic unit of apperception" was coined by the author to provide the technical basis for his theory of the organization of the material manifold, which guarantees a representative unit that can be called knowledge, either because it is represented as true or because it expresses this representation of truth through a judgment, that is, through a normative selection of what must be excluded from the representation in order for it to be true.

The faculty of building representations and construct rules is thus seen as a kind of primitive psychological thesis of Kant, who believes that all lower or pre-conceptual stages of representation – perception, association, imaginative reproduction – are defined by the relation to a conscious unity that finds its full expression in judgment. Thus, the projection of an object is subject to a rule that defines that object by certain necessary contours, namely, the ideal contours that are created so that the intuition of that object can be adapted a priori to its concept through a unity of congruence or a kind of schematic mapping (mathematical or dynamic). The answer to the question of what a system of categories means depends on the answer to the question of what underlies this fusion between the totality of our scientific knowledge and the human capacity to semantically codify that knowledge. This answer can hardly come from any other field of knowledge than that called philosophy, which, in the sense sketched by C.I. Lewis, works to articulate conceptually the normative assumptions that support the knowledge platform of culture. The following quotation from Henri Wagner's article, Aims and Claims of C. I. Lewis's, summarizes the sense in which philosophical knowledge, if it can operate in the maximally abstract sense, i.e., as metaphysics, eventually becomes conceptual pragmatism:

In his metaphysical aspect, philosophy is a reflective practice that intends to make explicit, to articulate, and to clarify the "fundamental criteria of classification and principles of interpretation" (5, 34, 86), 2 that is, the categories, already implicit in our practices (30, 54, 85–88). 3 Since these criteria are provided by the mind, philosophy is "so to speak, the mind's own study of itself in action (2021, p. 132)

The categorical challenge does not exist separate from or prior to the scientific challenge, which is also metaphysical in that science attempts to fix the structural correlation between our intentional strategies and external reality. They are part of the same challenge to encode the external world in a way that is possible for our experience. The unity of logic and semantics is given by the criteria for successful representation, i.e., by our intentional strategies for idealizing the fixity of the object of judgment<sup>3</sup>.

Kant's reflections on this subject led him to define the semantic universe of what concepts can be mapped to an intuition as a paradigm of possible meaning, which we usually refer to as what we obviously have access to, as objects of our consciousness. This is based on the insight that there is a difference between speaking with a reflective understanding of the categories

<sup>&</sup>lt;sup>3</sup>For Kant, failure in this task is a rare feat. It would be a supernatural feat to fail to the point that the error persists in the form of judgment. There are many ways in which we can fail to give the correct contours to a semantic context, but as a mere problem of precision, these inaccuracies contain their seeds of correction and cannot be counted among the philosophical problems that skepticism invokes, whether that of Descartes or that of Hume. To separate thinking from being, we would have to be superhuman at best or dialectical at worst. In either case, however, we would be attempting to transcend the conditions of representability to an extent that is impractical.

underlying the interpretable inferences of the system, and speaking without an understanding of that categorical basis. Thus, when we say that we are aware of something, we are dealing with the problem of determining how much knowledge we have about the pillars that support the interpretations of a system of inferences. Similarly, saying that we are not conscious is about the inadequacy of our knowledge about the pattern of meaning of a proposition. The difference between consciousness and unconsciousness, then, has a semantic explanation: the inability to determine an assertion or conclusion strategy based upon the semantic mapping potential of a system of categories indicates a lack of understanding. It is a condition of undercomprehension. This underdeveloped understanding is expressed in many semi-philosophical vocabularies. In the language of law it is expressed by a lack of legal title, while in the language of psychology it is expressed by the nomenclature of unconsciousness; it can be expressed simply as incompetence, The inability to establish the intentional nexus between sign and meaning may manifest itself in a social lack of ability either to articulate language in a way that projects legitimate claims or to recognise the worthwhile content of hypotheses.

But this underdeveloped state of judgment may eventually manifest itself in language constructions - sentences - that are equated with "pseudo-meaning" or pseudo-scientific constructions which are grammatically correct, but from the categorical point of view would not be mature enough to lead the understanding to a solution of the problem of its truth (or falsity). Thus, when Kant speaks of lack of judgment as "stupidity," he goes far beyond a mere psychological diagnosis. He describes a transcendental condition with a high philosophical tenor.

We can now see that Kant did not abandon psychology, but also enriched the psychological study with a better definition of its object by adding to it the semantic problem. As a final point, he suggests the possibility of having a right to the categories that were once applied within the bounds of our competence to fill the intentional nexus of our representations. The representation of consciousness is then equated not with any kind of psychic energy, but with the psychological competence to determine an object or to map an object onto an assertive strategy or semiotic construction. One might say that this enrichment adds superstructural layers to the psychological problem, but then we would answer: What would be the infra-structural layer of psychological study? Is there a phase of the study of the "I" in which this entity would be pure and free from any connection with sociological and institutional-linguistic mediations? Kant did not address this problem directly, but he anticipates the blending of psychology and semantics that would mix the subject of the "I" with the subject of the "categories" that relate the "I" to its objects. Thus, it can be said that he is a pioneer in this topic as well.

This provides a scoring system for judging what does and does not contribute to an assertion or judgment strategy, and so the notion that certain combinations are untenable, poorly rewarded, more or less strategic, or even nonsensical can be represented by a predefined criterion: the criterion of representations that can be organically integrated into a unified system of thought - the synthetic unity of apperception. Different emphatic ways of exploring Kantian insight, however, have different consequences for the formation of an academic consensus. By saying that an assertion strategy is untenable, we emphasize a moment of strategic construction that still has a large stake in the personal activity of those who construct meaning. However, when we say that the assertion is nonsensical, we take a step toward mystification and dogmatic override, for we exclude an unsuccessful strategy from the list of meaningful possibilities by a quasi-moral condemnation – in the sense that a moral condemnation carries socio-normative weight independent of the individual. Different emphases will lead to different academic consensuses and traditions of study on this topic.

In including a normative system of scoring for judgment, the problem of the definite demarcation of meaning and pseudo-meaning has not been resolved, to be fair. However, Kant shifted the focus to a more fundamental mystery, and with this he provided a more accurate characterization of the problem. It involves what he believes to be a "transcendental" view of the problem, which is not at the level of any technical characterization, such as finding the most appropriate grammar or developing more powerful algorithms. The problem of "meaning" and pseudo-meaning is the pre-semantic human problem, that of knowing the limits of the sovereignty of human reason over its possibilities of representation.

There is nothing wrong with the linguistic phase of the study of categories, except that it begins the discussion at a very advanced stage. When a society already has a complete alphabet and a syntactically articulated language, the organization of its truth claims or propositional representations has already reached a high degree of institutional maturity. Since our institutions have an undeniable influence on the way we accept parameters that are normal and paradigmatic, there is a danger that we confuse grammatical bias with universal conditions of logical expression. This means that we begin the discussion at a stage where a heavy dose of more fundamental problems is ignored. We might suppose that approaching the presemantic or prepropositional problem gives us a vantage point less burdened with presuppositions. Returning to Kant, we return to the subject of categories at its richest stage of discussion. For Kant's approach assumes no ontological (Aristotle) or linguistic (first analytic philosophers) presuppositions about the set of normative categories. According to Robert Brandom:

Where Descartes's inquiry into the conditions of the possibility of empirical knowledge could take for granted the subject's grasp of ideas that at least purported to represent how the objective world actually is, Kant dug deeper to investigate what is required to make intelligible the contentfulness of concepts in any sense that includes their objective representational purport. (BRANDOM, 2013, p. 1)

# The Logic of Empirical Research or the edge of a Doctrine of Science

If we summarize the results of the last chapter, we may say – against the skeptic - that it is possible to reach a rational and consistent empirical argument. Under the present synthetic conditions it is possible to assign this judgment to the truth at the greatest possible distance from the untrue, even if the conditions of that true is contingent. Kant's response to irrationalist skepticism depends on it. Some challenges remain, however. It may be possible to challenge that coincidence between logic and proof on empirical grounds given one or another adjustment in our subsuming judgments. To speak in Dummett's terminology, harmony can be called into question. We may revise the harmonic conditions of language. Due to the fact that we can choose to approach the schematization of the intuitive content of speculative concepts in a variety of ways, there is some room for indeterminacy. There are no natural constraints on those. We cannot base our logical knowledge on a psychological theory about immutable rules for cognition, or on a deontological heuristic about how we should deal with interpretations, or on a natural theory, or even on a metaphysical expectation. For Kant, anything ideal, teleological, or eidetic in our heuristic knowledge must be regulative and transcendental, not an entity beyond the limits of intuition.

We argue that this new diagnosis can be seen as anticipating a problem with the stability of our rational parameters by describing how sense and non-sense can be mixed and confused in our representations. Kant thinks of two ways to enter a discursive-conceptual dimension, one stable and one unstable. The second problem triggers a dialectic of pure reason in which the use of pure concepts is without an intuitive foundation. Stability is the way in which the account of the difference between sense and non-sense is anchored or well defended in our judgment. It is the harmonious state in which linguistic inferences are justified by self-justifying laws (to use Dummett's terminology). In this framework, Kant's deduction of categories is an argument for the failure to represent the stability of the defensive features of a discursive field (its categories)

without apperceptive concepts. This means that the account of our relations as objectively valid, rather than as mere subjective speculation, is conditioned on a legal claim involving normative awareness of the grounds of judgment. What guarantees the deontological normativity of a heuristic argument, then, is neither a psychological fact about how we ought to think, nor a political or sociological fact, but a form of deduction from apperceptive concepts that describe the unity of conceptual knowledge or knowledge about pure categories that justify our judgments about empirical events. This is a transcendental idealization (we will return to this at the end of the chapter).

What we have learned from this reading is that this knowledge of connection, relation, or apperceptive knowledge is what enables us to find stable points to follow speculative paths with maximum defensive certainty. To judge is to tap into these defensive features of a conceptual field.

In this interpretation, the whole description of the representational apparatus through different kinds of connections, such as association and imagination (the apperceptive as the higher), is the proposal for a sound consideration of the problem of argumentation in general. It anchors the heuristic thinking about facts. The most objective connections are those that involve the apperceptive representations, because they make the divergence between sense and non-sense stable or grounded (anchored). Semantically grounded distinctness is the prerequisite for the logical content of the connections to be represented as objective and not merely speculative or subjective. What is at stake in the difference between subjective and objective representations is not the "reality" of the intuitive or conceptual apparatus that makes the representation. Rather, it is the ideal nature of the concepts (categories) that stabilize the difference between sense and non-sense within a programmatic, investigative account of nature – although this stability is often broken in order to expand empirical knowledge.

According to Kant's Deduction of Categories, the knowledge necessary to judge empirical propositions, which we grasp through the methodological strategies of the natural sciences that have flourished since Galileo (anticipated by extraordinary examples such as that of Arquimedes), is not knowledge that can be grasped through its formal generalization and reproduced through formulas (organon). Rather, it is a form of reflexive access to the categories that support knowledge of consistency and completeness by someone who can draw on the defensive properties or safe places of his a priori categories in making judgments. It is precisely what one apperceptively knows. The ideal nature of apperceptive concepts shows that the categorical basis of our knowledge cannot come from a transcendent reality. It is a subjective strategy for defending the basis of judgment. We can call this an anchoring strategy. Apperceptive concepts anchor our knowledge in risky or speculative conditions in which our judgments must defend their foundation by pure concepts. That is, it is knowledge of the stable nature of the pattern we use to generalize the context relevant to the capture of a set of instances by a model or rule. This is never an eternal knowledge; it is susceptible to expansions and breaks of consistency, but it can be stable, and will be if the codification of the phenomenological structure of correlation can be traced back to apperceptive concepts of synthesis. Importantly, Kant does not have a Platonic and realist theory of idealizations underlying the stability of a conceptual system. His theory is an idealism with a penchant for pragmatic conventionalism, but supplemented by a robust moral theory about man's ability to make his own rules and gain sovereignty over his rational parameters.

# Empirical Reason and contingency: Dynamic Risk as the Common Origin of Empirical Reason and Ungrounded Speculation

According to our interpretation, the important feature of the apperceptive contribution to knowledge is that it stabilizes the opposition between sense and non-sense. It idealizes (transcendentally) the conditions for distinguishing sense from non-sense. The stability is the more solid the more it corresponds to normativity (quid juris). This apperceptive knowledge is based on a normative property of our theoretical consciousness and not on a psychological (metaphysical, etc.) fact. We know nothing other than these rules or categories when we learn how to make complete sense of empirical knowledge, i.e., how it is presented in contrast to a version of the absurd. Against inductive skepticism, Kant would argue that even in a programmatic empirical inquiry or heuristic argument, one can reach positions of secure assertibility based on the provisional stability of the separation between sense and non-sense. A complete prediction of the consequence relation is just the mechanical means for finding the content of the distinction between true and false within the theoretical dimension. The incompatibility between true and false must be stable within that theoretical dimension. It follows that the absurd, which goes beyond the sphere of logical-consequence cognition without being contradictory - all unorthodox forms of the absurd such as type/categorial incompatibility, paradox, informal fallacies, ungrounded sentences, etc. - must have a much more provisional origin. It is a very elementary form of rule violation. In this case, the stable boundary of the categorical system has been violated, leading to a class of unpredicted logical or sentential knowledge arising under unstable (risky) conditions, when the assignment of truth does not necessarily preclude its falsity.

Any kind of categorical knowledge is accompanied by a complete distribution of knowledge across the line that separates possible experience from the absurd. Thus, if we know that billiard balls do not lift off the ground without counteracting inertia, then what we know is not an ordinary logical generalization, but becomes logical (in a derivative, transcendental, synthetic sense of logic) only because of the stabilizing elements we introduce into the account to support it. But we are now in territory that, for Kant, goes beyond the limits of general logic, and this explains why he left all the prizes to Aristotle for leaving this discipline in its finished state. Kant knew that our knowledge of logical possibilities not stabilized by the law of noncontradiction is determined by more complex considerations - such as an intensional description of the "possible" (possible worlds) and other non-classical frameworks for logical knowledge of the "possible." This logical enrichment is what the empirical researchers of his time were learning to deal with, and Kant thought he could explain this new kind of rich reasoning by calling it the question of "a priori synthesis." Synthesis is a kind of identification pattern that goes beyond the mere analysis of concepts. It is a purely categorical and therefore secondary means of conceptual identification or instance equality, even under temporal-spatial conditions of instance identification. But the German philosopher employed an innovative strategy to extend logical reasoning to higher order representations and to account for these versions of the "possible." Instead, he developed a modal theory of synthesis that places the question of possibility at the center of human experience and the normative capacity to give rules to itself (the question of the sovereignty of reason). In his theory, modal knowledge is dynamic. It transcends and defies any extensional prediction. To be able to explain or idealize it, the only theoretical awareness we can have of it is transcendental.

That awareness may be transcendental, but it can also take the form of its non-benign counterpart: dialectical (which is transcendental knowledge in a dogmatic and speculative state). Kant introduced the possibility of problematizing logical possibilities into reflection in two ways: non-benign speculation, in which judgments and their negations are generically juxtaposed; and

justified judgment, in which apperceptive terms give unity to any state of discursive positions (even empirical programmatic investigations). The first is a dialectical account of the possible; the second is transcendental. The last is the knowledge that can deal with breaks in consistency. It is the knowledge that modern science possesses when it sets up the categorical and apperceptive conditions to schematize the evidential path of its propositions - or to make a second-order identification - and that, in Kant's view, can be called transcendental logic.

We argue that Kant's diagnosis of the transcendental challenges of pure reason can be seen as anticipating a philosophically rich portrait of the possible questioning of the stability of our rational parameters. This account describes the way in which sense and nonsense can be prevented from becoming mixed and confused in our representations. Since our relevant knowledge, inherent in empirical science, is fraught with risk - any true proposition can turn into a false one under unfavorable conditions - the most we can do is stabilize the defensive properties of our conceptual apparatus to distinguish sense from nonsense at every stage of our reasoning. In this interpretation, the whole description of the representational apparatus by different kinds of connections (the apperceptive as the higher) is the proposal for a grounded way of looking at the problem: the most objective connections are those that involve the apperceptive representations, because they are the ones that make the divergence between sense and non-sense stable or grounded. Semantically grounded distinctiveness is the precondition for the logical content of the empirical connections to be represented as objective and not merely speculative or subjective. What is at stake in the difference between subjective and objective representations is not the "reality" of the intuitive or conceptual apparatus that makes the representation; rather, it is the ideal nature of the concepts (categories) that stabilize the difference between sense and non-sense.

# Conclusion: Risk and Conceptualization in the Metaphysical Basis of Scientific Knowledge<sup>4</sup>

To finish the paper, we can make some remarks on how this characterization of the Kantian theory of judgment and risky-contingent knowledge is apt to compete with the skeptics of synthetic a priori knowledge. The whole question of the possibility of judgments representing this knowledge can be transformed into the question: Is it possible to have logical knowledge about the rules used to frame empirical events or phenomena? Is it possible to have stable frameworks of rationality for recognizing patterns of empirical phenomena and distinguishing them from incompatible patterns? Is this distinction complete enough not to require reliance on contingent knowledge (about facts)? These are questions that boil down to our ability to treat the concept of consistency and completeness not as transcendent ideal knowledge of a psychological or metaphysical kind, but as problems of developing harmonious standards or parameters for any categorical field in which reflection takes place.

This includes the need to give something to the skeptic: It admits the fragility of our conceptual frameworks or the susceptibility to breaks in consistency. It is true that logical knowledge of this sort is never statically complete; it is only a provisional state of our defensive knowledge, the knowledge we learn to apply by knowing the second-order devices for maintaining structure: i.e., the categories of our system. In its ultimate utility, this knowledge is the kind of knowledge possible to beings who can have modal knowledge of possible and necessary truth only normatively, that is, by giving themselves rules.

The advantage of Kant's view of the problem can be revealed in this way: The richness of Kantian philosophy consists precisely in the fact that he allows the concessions he makes to the

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<sup>&</sup>lt;sup>4</sup>The methodological nature of this conclusion consists in establishing what can be sustained, using the theses of the article as a premise, but also in the development of the proposals achieved by this study proposal and the discussions it can generate.

skeptic concerning the susceptibility of consistency to coincide with the diagnosis of a certain kind of corrupted or dialectically impaired reflection. The incompleteness of empirical thought, or its dependence on future observations, is then seen in terms of its compatibility or kinship with pure non-intuitive speculative thought. This common trace is responsible for presenting a transcendental aspect of these two forms of representation (empirical and dialectical). It shows how empirical and speculative thought relate to each other in the sphere of transcendental disputes. It shows where the limits of their role lie in the court of protests and challenges to pure reason. Empirical and dialectical thinking are the two typical representations of risk and instability in our theoretical reflection. Therefore, they represent a similar attitude towards the legitimacy and limits of pure reason. This peculiar form of corrupted reflection is in fact an unreflective and non-apperceptive form of representation of our theoretical awareness of speculative concepts. Instead of presenting them as apperceptive concepts, it presents them as transcendent concepts. This deprives the process of meaning-making of any chance of critical scrutiny.

The kinship between non-intuitive speculation and empirical reasoning is also consistent with the kind of reasoning that philosophy had to do in order to understand the logical nature of the science that was born with modernity. Kant made a transcendental presentation, to eighteenth-century Europe, of a new method of producing necessary truths, which Galileo, Copernicus, Newton, Torricelli, among others, put into practice. In this field, the difference between the essential and the contingent is not accessible in the proper (intuitive) way, as a modal knowledge programmed by a model. Nor is it exemplified by a thing in itself. Its characteristic is that it is dynamic and dependent on the complexifications of its logical content. It cannot avoid the representation of possible inconsistencies induced by factual evidence. Therefore, it cannot simply avoid the risk and enrichment of second-order rules (Kant calls it subsumption of rules by judgement). This knowledge of consistency is accessible only in a dynamic way, and our task is to stabilize the dynamics of pure reason to provide safe places where truth – and its distinction from falsity - can be predicted in empirical inquiry by logicizing it. But we cannot teach this logicization with a formula; or an example. One has to build up the matter of intentional correlations using various strategies of judgment. This can be seen today as what is done in empirical-modeling methodology, which Kant did not support in the form it was in his time (basically Baconian-style induction), but which he would support as other kinds of schematism (A 141/B 180) to codify a priori the synchronicity of correlation between certain intuitions and general concepts. We can counter the danger of this unstable logical state by giving ourselves rules or by dogmatically creating entities. Both are idealistic solutions, but only the first avoids the dialectical problem.

This is a unique feature of Kant's tradition of thought. It not only gives readers a categorial point of view on what necessary knowledge is in some system of concepts. It makes it possible to assess changes in necessary judgments according to historical changes in the scientific state of the art. It provides resources for thinking about cumulative cultural learning and the difference between stable and unstable circularity in logical justification. It challenges the reader's philosophical vocation to make his or her own historical survey of science and necessary truth. Once the reader of the *Critique of Pure Reason* understands that perspective, he or she will not describe scientific achievement as the representation of truth about an eternal object (the thing-in-itself); instead, he or she will regard any part of knowledge that is necessary – not contingent – as the stable part of it, or the part represented by apperceptive concepts. This is the part that is normative in human experience. It is the part that fits well with the metaphysical status of the cultural achievements of this historical phase of human cognition.

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