#### **KANT ON TRANSCENDENTAL EPISTEMOLOGY**

Kant on doing philosophy:

From the aforementioned distinction between *objectively* and *subjectively* rational cognitions it becomes clear that, in a certain way, one can learn philosophy without being able to philosophize. He who truly wants to be a philosopher must practice the free use of his reason and not merely an imitative and, so to speak, mechanical use. (Kant, *Logic*, 1800: III: 26)

# Introduction: Why and how has Kantian philosophy become so important in my philosophical inquiries?

As a member in a kibbutz in Southern Israel, and after working there for many years, I asked to be given a chance to study philosophy at Tel-Aviv University, which was and interest of mine from youth. I received my wish on the condition that I do additional duties beside my studies. I studied Spinoza, Kant and other ancient and modern philosophies, e.g., Logical Positivism, Analytic Philosophy and more. Later on, I was sent to work at a youth organization in Boston. After some time, I was accepted to Brandeis University to study for a PhD. My good recommendations from Tel-Aviv University granted me a scholarship and a fellowship that supported me in my studies there for two years, 1970-1972.

At Brandeis I also studied with Karl Popper, probably actively. After inviting me to his office and discussing philosophy, I discovered that he was a neo-Kantian. In 1979, I was accepted to Harvard as a research scholar in the philosophy department where Hilary Putnam was the chair. He showed me his new manuscript and, upon reading it, I asked him if he was a neo-Kantian and he admitted that he was. So, also, with Donald Davidson at Berkeley and with Jaakko Hintikka, who admitted to being a neo-Kantian, when we met at International Wittgenstein Symposium, in Kirchberg, Austria, as well as Nicholas Rescher of the Center for Philosophy of Science at the University of Pittsburgh, among many other philosophers.

My analysis of Analytic Philosophy, Logical Positivism, Logical Empiricism, Phenomenalism, and more is based on my acquaintance with Peirce’s late writings, which began when I was a visiting scholar at Harvard and researched his manuscripts in the Houghton Library, 1979-1981. All those philosophical movements are, in different modes, neo-Kantian, lacking any theory of truth to prove our knowledge of reality. Some of those philosophers consider themselves Peircean Pragmaticists, due to their acquaintance with only his early writings, when he was a pure Kantian, and not with his mature writings from 1903 to 1909. Only in those writings did Peirce complete his anti-Kantian Copernican revolution. While he continued to accept formal logic and pure mathematics instead of developing the Epistemic Logic, which is already hidden in his Semiotics, and also the pure mathematics in following the Kantian formalism, which contradicts Peirce’s Realist Epistemological revolution (Nesher, 2018).

However, in my work on Kant’s Transcendental epistemology, I criticized his three Critiques and showed that none of them can solve the problems that Kant endeavored to solve. He failed and even, in a way, admitted it. In the first Critique, with his criticism of Humean empiricism, Kant attempts, with Transcendental formalism and sensual matter, and tried to bridge the gap between the formal *empty concepts* and the material *blind objects* utilizing his bizarre *schematism* to make possible the *logical judgments* as our knowledge. Yet, he admitted his failure to bridge the gap between the transcendental pure formalism and the sensual matter of experience. He also admitted to his friend Garve that a gap remains within his epistemology between the Transcendental Pure Reason and the experience of sensual intuition of objects (Kant to C. Garve, September 21, 1798, AK 12:257). Moreover, in this Critique, Kant admitted that he does not have any way to make our science true even to our phenomenal experience. In the second Critique, he endeavored to make his practical reason of the a priori pure fact of formal morality into free moral conduct materialize his ideal *commonwealth of ends*, as Spinoza on human ethical freedom, but could not bridge this gap. In his third Critique, Kant attempted to make the aesthetic reflective judgment of beauty (including of artworks) social but failed to do so (Nesher, 2002, 2004, 2007, 2020, 2021).

The Peircean pragmaticist method can save the theory of knowledge both from the dogmatism of the metaphysical realists and from the inconsistency of the phenomenalists and holists. However, as they admitted to me, contemporary American Pragmatists are actually neo-Kantians, due to their acquaintance with Peirce’s early writings only, when he claimed to be merely a nominalist with a Kantian touch. In his later, realist phase, from 1903 and on, Peirce developed an epistemological realist response to the difficulties of Kant’s transcendental epistemology, especially that of his three Critiques. This response was the conception of the three normative sciences - Theoretical, Ethical and Aesthetical. In so doing, he articulated their different modes of representing reality and their normative roles, which make them Practical: Firstly, how theoretical sciences can practically help humans adjust to nature as well as change it so as to live better within it; secondly, how ethical science allows persons to adjust themselves to society and, more so, to change and develop it into the communal society that supports its citizens’ ethical freedom and values their conduct – namely, to create practical Kant’s ideal of the *commonwealth of ends*. (Nesher, 2007).

Thus, Peirce, with his realistic epistemology, develops his conception of the three *normative sciences* to solve the epistemologically unbridgeable gaps between the transcendental a priori abstract forms and the experiential character of sensual matter in Kant’s three Critiques. He aims to overcome Kant’s epistemological effects on the last three hundred years of philosophy, which cannot realize its philosophical ambitions because it lacks any theory of truth to show how we cognitively represent *noumenal* reality.

# 1. Kant’s conception of metaphysics

“The project on which I am now working … must be completed, or else a gap will remain in the critical philosophy.” (Kant to C. Garve, September 21, 1798, AK 12:257).

The present writer was a pure Kantist until he was forced by successive steps into Pragmaticism. The Kantist has only to abjure from the bottom of his heart the proposition that a thing-in-itself can, however indirectly, be conceived; and then correct the details of Kant’s doctrine, and he will find himself to have become a Critical Common-Sensist. (Peirce, 1905 *EP*II: #25, 353-4)

According to Kant, in order to establish metaphysics as a science, a clear distinction must be made between the pure concepts of reason (the ideas) and the pure concepts of the understanding (the categories).

The distinction of *ideas*, i.e., of pure concepts of reason, from the categories, or pure concepts of the understanding, as cognitions of a quite different species, origin, and use is so important a point in founding a science which is to contain the system of all these *a priori* cognitions that, without this distinction, metaphysics is absolutely impossible or is at best a random. (Kant, *Prolegomena*, 3d Part, sec 41)

The concepts of reason (ideas) cannot be confirmed or refuted by experience because they do not appear in experience. On the other hand, the concepts of understanding appear in experience. They are confirmed by experience (Kant, *Prolegomena*, 3rd Part, sec 42).

The difficulty is that if the concepts of the understanding appear in experience and are also confirmed by experience, they cannot be axiomatic a priori, and their truth depends upon our empirical experience. The question, then, is whether this condition also holds with respect to the pure ideas of reason. If it does, this is a sort of Kantian overcoming of the transcendental basis of his epistemology.

According to Kant, metaphysics is the outcome of our transcendental epistemology being the axiomatic system of pure rational concepts that are the basis of our experiential phenomenological knowledge. What, then, is special about metaphysics?

First, I will inquire what is the subject matter of metaphysics. Then, I will analyze what are the pure concepts of reason. Finally, I will examine what is possible in metaphysical thought and what is not, based on the psychological syllogism.

Metaphysics is concerned with pure rational concepts. Metaphysics has to do not only with concepts of nature, which always find their application in experience but also with pure rational concepts, which never can be given in any possible experience whatsoever. Consequently, the objective reality of these concepts (viz., that they are not mere chimeras) and also the truth or falsity of metaphysical assertions cannot be discovered or confirmed by any experience. (Kant, *Prolegomena*, 3rd Part, sec 40

The epistemological difficulty is to explain from where we learned and received our rational concepts if they “cannot be discovered or confirmed by any experience” and whether “the axiomatic objective reality of these concepts is constant or can be changed and, if so, how this can be? According to Kant:

The concepts of reason aim at the completeness, i.e., the collective unity of all possible experience, and thereby go beyond every given experience." (Kant, *Prolegomena*,3rd Part, sec 40).

The epistemological question is whether metaphysics can go beyond every given experience?

The objective reality of these concepts and the truth or falsity of metaphysical assertions cannot be discovered or confirmed by any experience. (Kant, *Prolegomena*, 3rd Part, sec 40)

Hence, the question is how we know a priori metaphysical concepts and how we can demonstrate the truth or falsity of metaphysical assertions if they are known beyond any experience? Indeed, Kant made the distinction between the *concepts of understanding* and the *ideas of reason* because the first are to be connected to our experience if and only if we can overcome the gap between their formality and the materiality of experience. Moreover, this cannot hold for the ideas of reason and, thus, their truth or falsity is unexplainable, because transcendental reason cannot have axiomatic fake ideas.

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How is it possible to know all possible experiences, to enable one to assume the applicability of metaphysics also for unknown future experiences? Realist epistemology can offer a solution to this unbridgeable gap by suggesting that metaphysics is not accepted as a transcendental a priori assumption to supply the general picture of our experiential knowledge, but is developed gradually to understand our new experiential and scientific knowledge; it explains our general and abstract knowledge of reality as they continue to evolve as the general picture of reality.

The distinction of *ideas*, i.e., of pure concepts of reason, from the categories, or pure concepts of the understanding, as cognitions of a quite different species, origin, and use is so important a point in founding a science which is to contain the system of all these *a priori* cognitions that, without this distinction, metaphysics is absolutely impossible or is at best a random. (Kant, *Prolegomena*, 3rd Part, sec 41)

The above citations can support an epistemological move from transcendentalism to realism, since, without it, we also cannot explain metaphysics as the universal cognitive picture of reality based on our experiential and scientific knowledge of reality.

The epistemological endeavor is to show why transcendental pure and formal metaphysics cannot work if we understand that our knowledge of reality is extended continuously while our metaphysics, as the general picture of reality, remains steady.

It is reasonable to suggest that metaphysics is the most general abstraction and generalization of our knowledge of Nature-Universe, which can lead us better to understand our particular knowledge in the framework of the general picture of Nature-Reality. Moreover, our metaphysics can change and develop with our progressive knowledge of reality and, thus, its general epistemic picture of reality can assist us in the conduct of our particular inquiries into reality, following the Spinozist and Peircean Pragmaticism (Nesher, 1978, 1979, 1987, 1999, 2012, 2016, 2020, 2021).

# 2. Kant’s Pure Reason, the impossibility of knowing the reality of self and nature

Kant, in his Copernican Revolution, which aimed to overcome Humean empiricism, suggested starting with transcendental a priori formal concepts to control our material sensual experiential intuitions, and yet had no method to combine them. Thus, Kant suggested his bizarre conception of *schematism* that cannot overcome the gap between the *empty pure concepts* of transcendental understanding and the *blind objects* of empirical intuitions. And, indeed, at the end of his inquiries, he admitted his failure to bridge this gap.

 \***[1]**

This schema aims to explain the synthesis of the meaningless *empty pure concepts* of Pure Reason with the indeterminate meaning of the *blind object*, to make the concept meaningful and the object determinate. Thus, the *empirical object* can be determined by being subsumed under the *pure concept*. However, Kant’s Transcendental Epistemology is based on a *mystical* conception of the *schematism* meant to bridge between *form* and *matter*. Without it, his philosophical system cannot hold.

This schematism of our understanding, i.e., its schematism regarding appearances and their mere form, is the secret art residing in the depth of the human soul, an art whose true stratagems we shall hardly ever divine from nature and lay bare before ourselves. Only this much can we say: The *image* is [here] a product of the productive imagination’s empirical ability. (Kant, *CPuR*: A141/B180-1; cf. A121, B185-187).

Hence, we can see that all Kant’s efforts in his first Critique to explain our scientific knowledge of nature through our phenomenal experiences cannot work in the transcendental epistemology. As I suggested above, after Peirce’s mature realist epistemology, we must start from our empirical experience and show how our conceptual knowledge develops from our basic perceptual experience and how it can establish the truth of our perceptual judgments. Moreover, those judgments are our first cognitive facts. Upon them, we can develop our true scientific cognitions with our *epistemic logic*, which I developed from Peircean Pragmaticism and his theory of truth (Nesher, 2002, 2010, 2011, 2016, 2018).

Thus, the evolution of the empirical concepts in perception from the sensual intuitions and imaginations into their synthesis in perceptual judgment reveals Kant’s difficulty with the transcendental epistemology of empirical concepts, which remain empty verbalizations. This is Kant’s nominalism as Peirce explains it (Kant, *CPuR*: #24-B150-151; Peirce, 1905 *EP*II: #25).

# 3*.* Kant and his *Pure Practical Reason* and the impossibility of making morality in absolute freedom practical

The transcendental ground of Kant’s Critique of Practical Reason is the a priori assumption of the *fact of pure practical reason*, which uses the concept ‘fact’ as a pure starting valid truth from which he can develop his moral theory without any need for deductive justification to the experiential components of the system of the Pure Practical Reason, as in the first Critique

The consciousness of this basic law may be called a fact of reason because one cannot reason it out from antecedent data of reason – e.g., from the consciousness of freedom (for this is not antecedently given to us) – and because, rather, it thrusts itself upon us on its own as a synthetic a priori proposition not based on any intuition, whether pure or empirical (Kant, *CPrR*: 31).

We can understand the status of *fact* as the basic assumption, accepted without any rational proof from other assumptions, as scientists use facts as certain true conditions for any scientific enterprise. The question is, how is it accepted? However, according to Peircean Pragmatist epistemology, *facts* are not components of reality but perceptual judgments proven to be true along with other scientific hypotheses (Nesher, 2000, 2001, 2002).

We can see that moral principles and the moral concepts develop in our moral experience as part of the social behavior of humans in society and that their combination constitutes the Moral Law, which forms the major assumption for deducing the possible moral act (cf. Kant, *Logic* (1800): #33). Assuming or accepting that the reality of the moral law cannot be done circularly as Kant seems to do (cf. Kant, *CPrR*: 42-50; Beck, 1960: X#2). Moreover, even if we assume the reality of the practical moral law of Pure Reason, we do not have any judgment that can be synthesized from the Pure Practical Law of Reason and from a particular sensible action in the world that would obligate moral action (cf. Cassirer, 1938: 73-78). Since, according to Kant, we cannot represent moral actions in the world as physical events, but only by the concepts of Pure Practical Reason, we must have recourse to the concepts of the Understanding, which can represent such moral factual events (cf. Kant, *CPrR*: 67-68; Paton, 1947:158-160). The question is whether the Understanding can mediate the supersensible concept of moral action with the sensible action-event? This means that with the Understanding’s induction, we will have to empirically evaluate the truth of the Moral Concept and Laws of the alleged Pure Practical Reason, as is suggested in Peircean epistemology (cf. Cassirer, 1938: 74; Nesher, 2004b, 2005c). Hence, the proof, or the quasi-proof, of the truth of moral laws and their actionable application can be achieved only by our empirical knowledge of human nature and the social behavior of humans (Kant, *Logic* [1800]: #33). The way to solve this predicament is to prove the truth of moral practical laws. Their imperative abstract actions in the sensual world will then be applied by abductive discovery, deductive inference, and by inductive evaluation of the truth, and thus, the reality of these laws and their application in the empirical world (cf. Kant, *CPrR*: 29-30). In this manner, we overcome the dichotomy between the supranatural world of freedom and the natural world of determinism and we understand freedom Spinozistically, as a person’s internal determination through self-conscious and self-controlled conduct according to the psychological and physical laws of nature (cf. Nesher, 1999). [from on Peirce and Kant; Nesher, 2007a].

Kant’s formalism and his attempt to prove his transcendental epistemology by deductive logic, as he did also in his formal mathematics, cannot establish the truth of our cognitions to be reality-representing knowledge.

**[2] The Kantian Eventual Evolvement of the *Rule of Conduct* from the *Principle of Ethic*, with the *Concept* *of Conduct* being the object of the initial a priori moral concept**

**Pure Practical Reason**

*A Priori* *Apperception*

**The eventual connection between the Normative Moral Rule and practical concept of Conduct**

*Transcendental Logic* **I** *Transcendental Aesthetic*

*Analytic**Principle Analytic Concept*  I *Moral Feeling of Desire*

*a priori Fact of Reason* Anticipating the I *the Rule of Conduct*

*Practical Principle* *Concept of Conduct and concept sensual object*

The Gap

Between a priori Pure Fact of Practical Reason principle and the *Rule of Conduct*

(Kant, *CPrR*: 89, 101, 102, n.509, n.512) (Kant, *GMM*: 410-11 & note\*)

In the above schema, we can see that transcendental moral principles and concepts cannot have any cognitive relation to the practical moral objects-conducts in the sensual domain of practical life. Kant’s problem with apperception is that it cannot consider the empirical person and thus cannot explain theeventual connection between the normative moral rule and the practical concept of conduct. The eventual reason for such separation is that in order to avoid the relative experience of the *logical judgment* of the sensual experience of what i*s*, we have to ensure the validity or absolutism of the *categorical* *imperative* of *moral judgments*, to be eternal and *ought*, independent of our relative sensual experience.

It seems that Kant’s intuition was that the facticity of pure reason is necessary for our acceptance of the metaphysics of morals. However, to make the categorical imperative a priori, he avoided the experiential facts:

**[3] Kant’s Conception of the Pure Fact of Practical Reason and Its Role in the Moral Principles of Virtue**

***Fact* of Pure Reason≈ autonomy in the principle-law of morality and absolute freedom**

Kant ↑ ***Deduction***: **⎥⎥**

tacitly invented : **The *Practical*1** **⎥⎥ Prove itself in us practically**

the *a priori* ***fact*** of : **formal** **Proof** **⎥⎥**

Pure Practical Reason : ∇

: **Rational being in world of sense conforms with dynamical laws**

[Sensual antecedent data] **A *practical2 rule*** prescribes action as a means to an effect that is the aim.

(Kant, *CPrR*:#7: 31) (Kant, *CPrR*:#1: 20) **[**Human Sensual moral conduct]

How can the *Fact of Pure Reason* be established and how can we be conscious of the moral law as the fact of reason? Are the moral law and the freedom of rational persons reciprocal, when one assumes the other (Kant, *GMM*: 4:446-448, *CPrR*: 29-31, 42ff.; Allison, 1986)?

??The epistemological conclusion must be that, in contrast with *Theoretical Pure Reason*, which, according to Kant, must be justified by deduction to explain its connection with sensual experience in the sensual world, *Pure Practical Reason* does not have to justify itself in the *sensual-empirical world*. This is so because it is the *Fact of Reason* whose aspiration it is to *prove itself in us practically*, to determine how the pure reason principles of morality determine the empirical subject’s moral deedsthrough dynamiclaws of causality (Kant, *CPrR*: 42-3). And yet, this cannot be established in Kant’s transcendental practical reason due to the epistemological *gap* between the *form* of the *Fact of Pure Reason*principle of morality and the *matter* of moral deeds in the *world of sense*.

# 4. Kant and the impossibility of evaluating beauty rationally

According to Kant, in the aesthetic mood we reflect only on our perceptual operations, and, like animals, we feel the relationship between the cognitive operations of the Imagination and of the Understanding instinctively, without explicit rules and concepts (Kant, *CJ*: First Introduction. V, 211'). As Kant suggests, our feeling, in response to the relationship between these faculties, can be of pleasure or displeasure, depending on whether we find the relationship between these cognitive faculties is harmonious or disharmonious. Thus, he suggested that the form of an object (“beautiful”) represents the quasi-object, and, more specifically, our “feeling” it as beautiful.

**[4] Abductively Suggesting the Universal Quasi-Concept for the Given Particular Quasi-Object: Aesthetic Reflective Judgment** (Kant, *CJ*: 287)**:**

⎡Blind Reflective Comparison⎤

Harmony/Disharmony

*Understanding* *Imagination Understanding*,

*Feeling*   *Discovery Inferred Intuitive concept of*

Particular Universal Particular *Reflective* *Judgment*

**Abductive** Quasi-Rule (Percept: (**Quasi-Object**, (Form of Object➞ Quasi-Object)) =>**Indeterminate Concept** *Sensation*IndeterminateConceptPresenting: ❙

Beautiful/Ugly 🡻

**Quasi-Object** (Subjectivefeeling)

The conceptions of the quasi-rule and the quasi-object show that we do not cognize them under any principles or concepts, but by our habitual pre-rational cognitions, through instinctive and practical reflection, self-controlling the outcome of such operations, while *reflective judgment* is only indeterminate rationally.

When we *reflect* (even animals reflect though only instinctively, i.e., in reference not to acquiring a concept, but to—say—determining an inclination), we need a principle just as much as we do when we determine, where the underlying concept of the object prescribes the rule to judgment and so takes the place of the principle. The principle by which we reflect on given objects of nature is this: that for all natural things, *concepts* can be found that are determined empirically. … For if we were not allowed to presuppose this, and did not base our treatment of empirical presentations on this principle, then all our reflections would be performed merely haphazardly and blindly, and hence without our having basis for expecting that this [reflection] is in agreement with nature. (Kant, *CJ*: V, 211’-212’; cf. V, 211’-216’; Nesher, 2002b: V.5.)

Indeed, we have to understand the difference between reflection in general, which is instinctive and practical, and the rational, self-conscious, and self-controlled operation of our cognition, whereby the former is used in determining an inclination and the latter in determining intention, knowledge and conduct. However, this is different from the reflection involved in aesthetic judgment, which controls only our subjective feelings of pleasure and beauty, without constituting any knowledge of objects, as is the case with the logical judgment, and yet it is not “performed merely haphazardly and blindly” (Kant …).The artist achieves beauty in a created artwork when he is satisfied with the harmony that exists between his intellectual ideas and the aesthetic ideasexhibited in the art. But how can this be explained? Is it possible given Kant’s conception of the reflective judgment of subjective feeling, without being established to be true and public under its proof-conditions, or, rather, perhaps it cannot be an aesthetic judgment?

\*[5]



**Reflective**

The problem is to reconstruct Kantian aesthetics to show how the creation and evaluation of the beauty of an artwork can be *objective* and *true*, rather than merely the subjective experience of pleasure and displeasure of *reflective judgment* (cf. Kant, *CJ*: 241; Nesher, 2021-22). Creating beautiful artworks is the *true interpretation* of the intellectual ideas, of the artists in their exhibition of aesthetic ideas, which, in being true, *represent* experienced reality *aesthetically*. According to Kant, an artist’s *reflective judgment* of this creativity is based on instinctive and practical *self-control* of the *free play* of ideas of the Understanding and the productive Imagination, to attain rational control of its success.

Regarding reflective aesthetic judgments, these are based on the artist’s imagination, which, according to Kant, affords a comparison between the aesthetic artwork and the known facts of reality. Such judgments render not only pictorial images, but also intense reactions. However, such aesthetic presentation of reality is achieved by the emotional images evoked through the contemplation of the aesthetic artwork, which is already infused with the intellectual ideas of the artist, which we can elicit from the context of the specific work's creation. Moreover, by reasoning and discussing, we can come to agree on its beauty as an aesthetic presentation of reality.

Now, for Kant, there are two different conceptions of judgment, cognitive *logical judgment* and *reflective* *aesthetic judgment*. The synthesis in the former is based on the imaginative reflective self-control of the relation between the Imagination and the Understanding in presenting an object, while the synthesis in the latter, though based on the reflective self-control of the relation between the Understanding and the Imagination,is just the subject’s feeling, without any aesthetic representation of any objects as the criterion for its truth.

In the Peircean theory of perception we can find the prototype of the structure and operation of the human mind confronting reality. According to the particular combination of the basic components of the perceptual operation, one of Kant’s components of the mind predominates, first, the Imagination (in aesthetic judgment), second is Reasoning-Volition (in moral judgment), and the third is rational Understanding (in theoretical judgment). These are the embryos of Kant’s Three Critiques and of Peirce’s three normative sciences representing Reality: Aesthetically, Emotionally and Rationally (e.g., Kant, *CPrR*: 33-34, 109-110; Peirce, *MS*:283, *EP* vol. 2: #27; Nesher, 2004 b, 2007a, 2008a, 2009, 2017a).

Considering the Pragmaticist epistemology of creating and evaluating artworks we find that all historical theories of art and aesthetic movements with their manifestos emphasized only some of the aspects of methodical artistic practice. Art historians nevertheless consider these aspects to be the only essential elements of artistic creation and evaluation. The focus is on the aesthetic or the intellectual ideas of the artists, on the content and the form of the artist’s intentions in the creation of works of art, on feelings of harmony or the representation of reality, on the feeling of the truth of the artwork, on the sincerity of the author-artist, and so on (Faulkner and Ziegfeld, 1969:430ff.). The following is the Peircean reconstruction of the Kantian intuition of artistic creation and the evaluation of artworks, and the three stages of artistic creation t and the evaluation of artwork as representing reality, based \*upon common-sense knowledge being the accepted knowledge of our three normative sciences, theoretical, ethical, and aesthetic:

**[6]**



The artist with his spirit and productive imaginative *Free play* interprets the generality of *intellectual ideas* into the singularity of *aesthetic ideas* and thus exhibits the intended artwork. With such a quasi-deductive inference the artist exercises, *a la* Kant, the *reflective* *manner* (*modus aestheticus*) to achieve the harmonious interpretation between the ideas of the Understanding and the Imagination, and the unity of aesthetic ideas of the created artwork. This is an elaboration of Kantian aesthetics, but replaces his subjective conception of *harmony* with the Peircean realist confrontation with reality, which can be the objective criterion of truth and beauty. Indeed, such reality is represented by the common-sense knowledge of reality,which is the historical accumulation of our perceptual and scientific knowledge, which is available to the artists in the creation and evaluation of their artworks (Kant, *CJ*: 1781-87; Nesher, 1994, 2007a-Chap. 7).

The difficulty is to explain the principal role of art and the aim of the artist: is it to imitate nature, to decorate our lives, to entertain us, to represent reality to guide our conduct in it, or to prompt us to be involved in moral activities and political movements that would change reality according to the knowledge and the impetus we receive from the created artworks? It is interesting to explain how a piece of artwork can affect our cognitions to help and elaborate our social, moral, and intellectual conduct in reality. Indeed, like other personal interactions, the artist, by expressing his intellectual ideas of reality and imaginatively creating aesthetic ideas – as embodied in the artwork – to be an aesthetic representation of reality, allows us to contemplate and enjoy the created aesthetic images, like Quixote or Karenina, and affect our own spiritual images, which are beautiful precisely because they express our understanding of our own life. In other words, art's purpose is to allow us to bring to mind the truth about ourselves, and thereby to become aware of who we truly are and how we are to behave in life. Art, therefore, is not just for art's sake, but for knowledge and beauty's sake, for the sake of a distinctively sensuous form of human self-expression and self-understanding.

# 5. Kant on formal logic and pure mathematics

In contrast with Kant’s basic conception of logical judgment and the upper transcendental part of such judgment in schema [7] (below), Kant presents his conception of pure Mathematical science as based on the Pure Intuition of the Understanding.

Now, the intuition which pure mathematics lays at the foundation of all its cognitions and judgments which appear at once apodictic and necessary are space and time. For mathematics must first present all its concepts in intuition, and pure mathematics in pure intuition; that is, it must construct them. If it proceeded in any other way, it would be impossible to take a single step; for mathematics proceeds, not analytically by dissection of concepts, but synthetically, and if pure intuition be wanting there is nothing in which the matter for synthetical judgments *a priori* can be given. Geometry is based upon the pure intuition of space. Arithmetic achieves its concept of number by the successive addition of units in time, . . . (Kant, *Prolegomena* (1783):282-283; Hintikka, (1973); schema [4])

We can elaborate the realist conception of mathematics based on Peircean semiotics, which I elaborated into Epistemic Logic, which can show how mathematics can be an empirical science (Nesher, 2010, 2011, 2016, 2017, 2018). The following, in schema [4], binds the experiential component of the Kantian transcendental epistemology upon which, according of my interpretation, Peirce constructs his realist epistemology to revolutionize Kant’s Copernican Revolution. The Kantian conception of knowledge, based on pure concepts and empirical sensations: the evolvement of empirical concepts from blind sensual intuitions and the empty pure concepts, into their synthesis in perceptual judgment, and the

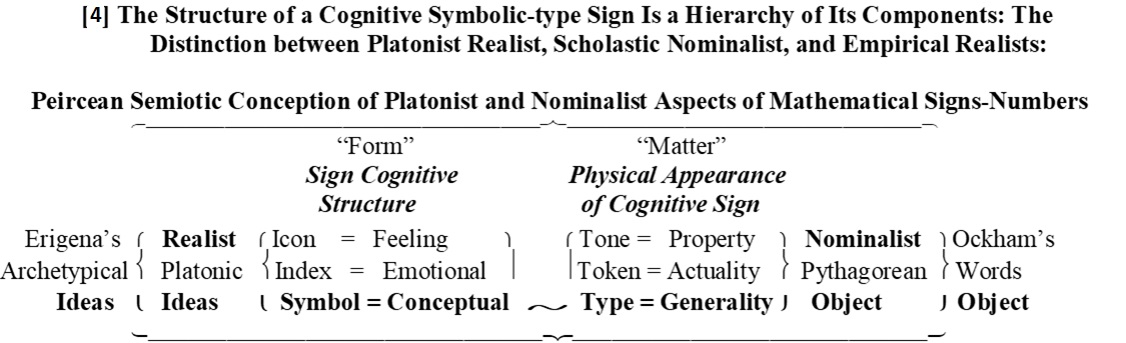
**[7] Pure Mathematics in Pure Intuition**



This schema can explain the synthesis of the indeterminate meaning of the *blind object* with the *empty pure concept*, which thereby makes the concept meaningful and the object determinate. Thus, the *empirical object* can be determined by being subsumed under the *empirical concept*. However, the evolvement of the empirical concepts in perception from sensual intuitions and pure concepts in accordance with the Imagination, to their synthesis by the schematism into perceptual judgment reveals Kant’s difficulty with the epistemology of empirical concepts and logical judgment (Kant, *CPuR*: #24-B150-151). However, Kant’s Transcendental Epistemology is based on a *mystical* conception of *schematism*, to bridge between the *form* of the *empty concepts* and the *matter* of the *blind objects*. Without it, his philosophical system cannot hold. The components of pure *a priori* knowledge include the conception of *pure mathematics*, yet, the formalism cannot work without empirical matter as the meaning of the pure forms. Since Kant assumed that mathematics is pure science, based on transcendental pure intuition, he had difficulties explaining this intuition, and, in his *Critique of Pure Reason* B-1787, he explains the basic mathematical intuitions by empirically counting fingers or dots.

In thinking merely that union of seven and five, I have by no means already thought the concept of twelve; and no matter how long I dissect my concept of such possible sum, still I shall never find in it that twelve. We must go beyond these concepts and avail ourselves of the intuition corresponding to one of the two: e.g., our five fingers or (as *Segner* does in his *Arithmetic*) five dots. In this way we must gradually add, the units of the five given in intuition. … . For then it is very evident that, no matter how much we twist and turn our concepts, we can never find the [number of the] sum by merely dissecting our concepts, i.e., without availing ourselves of intuition. (Kant, *CPuR*: B14-15)

The first epistemological difficulty is with numbers, whether they are ideas or objects, and this can be seen from the semantic structure of the signs-symbols: The **Realist** Platonic **Ideas** on the left and **Nominalist** Phenomenal **Object** on the right side of schema [8]. The epistemological difficulties of mathematics include: *what are numbers*, objects of signs or signs of objects, and what is *mathematics* and what is mathematical *proof* (Russell, 1901)?

\***[8]**

# Mathematical Reality Upon which the Pragmatist Structure of Cognitive Symbolic-Signs Operates

Indeed, number signs cannot be objects or concepts of empirical experience, but are discovered signs, components of the human empirical operations of counting, grouping, and measuring physical objects (Nesher, 2011). The discovery of the concepts of these operations of enumeration and grouping, which contain natural numbers, and further *discovery* oftheir expansion through abstractions and generalizations, constitute our mathematical hypotheses, which will be evaluated and proved upon extended mathematical reality (Krantz, 2011). Hence, by proving the truth of perceptual facts representing our mathematical-arithmetical operations with signs-numbers upon physical objects, we represent mathematical reality. The interesting epistemological question is whether Kant himself, with his philosophically brilliant intuitions, can come close to explaining mathematical experience in reality, to explaining its knowledge, without turning to the Platonist’s enigmatic suggestion? It seems that in the following paragraphs from his Prolegomena (1783), Kant comes close to an empirical explanation of our knowledge, what Peirce reconstructed from such intuitions to construct realist epistemology. Hence the Kantian conception of Formal Logic and Pure Mathematics operate only in deductive inferences as axiomatic closed systems, which can engage in inference without any proof of truth. Hence, they cannot be sciences, which can prove the truth of their hypotheses in relation to reality.

The alternative epistemology of themathematical proofs is at the intersection of Pure Formal Game and Empirical Theory. Indeed, the number signs cannot be of objects of empirical experience but are the discovered components of the human empirical operations of counting, grouping, and measuring physical objects. (Nesher, 2011). The *discovery* of the concepts of these operations of enumeration contains natural numbers, and the further *discovery* oftheir expansion through abstractions and generalizations constitutes our mathematical hypotheses, which will be evaluated and proved upon extended mathematical reality (Krantz, 2011). Hence, by proving the truth of perceptual facts representing mathematical operations we represent mathematical reality.

# [9] The Double Layer of Mathematical Operations: (1) Counting Physical Objects; (2) Perceptual Quasi-proving the Truth of Discovering the Numerical Signs and of Operating with Them

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By understanding that mathematical reality consists of perceptually self-controlled numerical operations on physical objects, we can see how Peirce, and also Gödel, confuse the meaning-content of mathematical signs with Platonist mathematical abstract *forms* as objects. Arithmetical numbers are neither *physical objects* nor *abstract concepts* but the *conceptual components of our quantitative operations on physical objects,* as mathematical reality, and upon it we prove the truth or falsity of our abstract mathematical hypotheses (Nesher, 2011).

Without operationally measuring the predicted and eventually observed true facts of reality mathematics cannot be true and cannot be “on a much firmer ground” than physics without “a testable prediction.” Both have to prove their own truths upon “their different ways of approaching the world.”

However mathematical intuition in addition creates the conviction that, if these formulas express observable facts and were obtained by applying mathematics to verified physical laws (or if they express ascertainable mathematical facts), then these facts will be brought out by observation (or computation) (Gödel, 1953/9-III: #16; cf. ##13-15 & n. 34).

How may one understand this hinted explication of the relationship between intuitive mathematical truth representing its own reality and its application to physical theories to enable their observable predictions (Gödel, 1953II: #15)? At the end, mathematics is neither the *queen* of science nor its *servant* but its *quantitative* *backbone*—that is, the quantified formulations of scientific theoretical hypotheses and their operations in scientific observations—without which physical and other theories cannot be evaluated experimentally. The explanation of the puzzlement of why mathematics is considered to be an *exact* or *pure* science, while being empirical like other experimental sciences, is the relative simplicity of its represented reality with respect to physical and psychological realities. This empirical explanation can be seen in Gödel’s late philosophical writings on the foundations of mathematics:

If mathematics describes an objective world just like physics, there is no reason why inductive methods should not be applied in mathematics just the same as in physics. . . . This whole consideration incidentally shows that the philosophical implications of the mathematical facts explained do not lie entirely on the side of rationalistic or idealistic philosophy, but that in one respect they favor the empiricist viewpoint. It is true that only the second alternative points in this direction. (Gödel, 1951: 313)

We can know experientially the mathematical facts of mathematical empirical reality.

# 6. Kant’s failure with his three Critiques and his looking to save them from his pragmatic point of view

To sum up the evaluation of Kantian transcendental epistemology, metaphysics, and philosophy, I suggest that, in his Critique of Pure Reason, he tried to combine Cartesian rationalism and Humean empiricism, which, taken separately, could not explain our knowledge of nature (Norton, 1993). Kant tried to combine them as the Transcendental-formal reason and understanding along with the experiential sensual intuition of matter. Ultimately, he admitted that he cannot cross the gap between them and therefore cannot explain our knowledge of nature. We can say that he invited us to criticize his Critique of Pure Reason. Moreover, Kant’s Critique of Practical Reason aims to criticize the practicality of moral concepts and laws and freedom of the will and to introduce moral freedom, which must be a Pure Fact of Reason, so as to make the moral laws the absolute *categorical imperative* of *moral judgments*. But, then, how can we reach our moral conduct?

How could the moral law of determination make the concepts of objects of practical reason actual if not through actual persons in their conduct, as components of the world-nature that can affect themselves, their society, and the environment? The difficulty with Practical Pure Reason is that without connection to sensual intuitions and reality, it cannot be practical in its full sense of human social action. \*\*

Hence an immense gulf is fixed between the domain of the concept of nature, the sensible, and the domain of the concept of freedom, the supersensible, so that no transition from our way of thinking in terms of principles of nature to our way of thinking in terms of principles of freedom. (Kant: *CJ* 176)

Moreover, Kant’s formalism and his attempt to justify his Transcendental Epistemology deductively, as in his formal logic for pure mathematics, cannot prove the truth of our cognitions to be our kowledge representing reality and it cannot prove the free reason-causation of human moral conduct.

The problem is to reconstruct the Kantian aesthetics in his third Critique to be able to show how the creation and evaluation of the beauty of artworks can be *objective* and *true*, rather than, as Kant takes it, just a subjective experience of pleasure and displeasure of the *reflective judgment*, without any criterion and proof of its truth or falsity (cf. Kant, *CJ*: 241; Nesher, 2021-22). A realistic alternative is that creating beautiful artworks is the *true interpretation* of the intellectual ideas of the artists in their exhibition of aesthetic ideas, which can be proved true as they *represent aesthetically* the experienced artistic reality. However, according to Kant, an artist’s *reflective judgment* of this creativity is based on instinctive and practical *free play* with ideas of the Understanding and the productive Imagination in order to attain the subjective feelings of beauty or ugliness, without any proof of truth or falsity as an objective criterion. Thus, it is actually the critique of *reflective judgment* and not a real judgment.

# The eventual mission of Kant in his three Critiques:

1. The Critique of Pure Reason: Reason cannot be pure if it is to prove its *logical judgments* and, due to the gap between the *form* of *empty* pure concepts and the *matter* of *blind* objects, it cannot do so. Therefore, we cannot know nature scientifically and, thus, to perform its function Pure Reason cannot be Pure Presentation of *phenomenal objects* but only *forms* of *empty meaningless words*.

2. The Critique of Practical Reason: Pure Practical Reason cannot be practical if moral freedom and its categorical imperatives must be absolute and, therefore, it cannot direct human moral conduct and be practical in personal and social life, by being true to their empirical reality. Thus, Practical Reason cannot be practical.

3. The Critique of Judgment is not objective but cannot be objective and social judgments if reflective judgment remains only a subjective feeling, without being proved true or false and without being public under its proof-conditions as is Kantian *logical judgment* in perception. Thus, reflective judgment cannot be objective judgment of the form “A is B is a proved true aesthetic judgment,” but only a subjective feeling “A is B”.

Kant cannot explain the validity and objectivity of the aesthetic judgment of taste since in Kantian philosophy of fine art, not only is a genius’s creation distinct from the aesthetic judgment of taste, reflective judgment cannot distinguish between artworks created by human beings and natural objects. However, without the unity of all three inferential components of the creative operation – the abductive discovery of artistic Intellectual Ideas, the deductive quasi-inference of Aesthetic Ideas from Intellectual Ideas by the productive imagination of the artist’s creation of the artwork, and the inductive evaluation for achieving aesthetic judgment and its beauty – we cannot have a complete explanation of harmony in aesthetic creation and in the evaluation of artworks.

There is no true aesthetic judgment without confronting and representing reality as in Peircean *epistemology*.The question is, how can we know whether the artist’s spirit and inner intellectual ideas, “the content, aim, and meaning” of the created artwork, have actually been interpreted truly by the aesthetic ideas, and how can we evaluate whether “the external, the particular, appears exclusively as a presentation of the inner,” since there are many possible aesthetic modes of presentation of the inner content by the external form (Hegel, 1835: 95-96)? What, in other words, is the truth of artworks and how is beauty connected to it? This remains an explanatory challenge for Pragmaticist epistemology, and it can be overcome by reconstructing Kantian aesthetics, and in doing so resolve its difficulties (cf. Nesher, 2003, 2004, 2005a, 2005b, 2007a). Claiming that the aim of art is the self-interest of the human spirit separated from its function to represent reality cuts it from any objective criteria of truth and beauty.

The Peircean Pragmaticist solution to these Kantian predicaments holds that the general and abstract cognitions develop gradually from the initial feeling of sensual intuitions to their interpretation in our emotional reactions to them, which their coherency interpreted in the synthesis of thought embodied in proving the truth of the perceptual judgment as our basic representation of reality. In this epistemology, general rationality develops from particular experiences without any need to bridge the Kantian gap between the Transcendental and the Empirical components. Hence, Peircean semiotics is actually the epistemology of knowledge upon which I developed my epistemic logic, by which it can be shown that the Kantian conception of formal Transcendental Reason and Understanding cannot explain how these can prove the truths of our hypothetical cognitions (Nesher, 2011, 2016 2018, 2021).

This realist epistemology allows Peirce to solve the predicaments in all three of Kant’s Critiques with his conception of the three Normative Sciences, the Theoretical, Ethical and Aesthetical along with their different modes of representing reality. It allows him to explain how these sciences are normative and practical in human life and conduct in natural, social and engaged living, respectively, by proving their truth with respect to their proof-conditions (Pierre, 1903, Nesher, 2007).

**7. Kant, in his late research attempted to find *pragmatic explanations* to solve his epistemological difficulties but failed** (Kant, *APV*, 1789)

Kant’s distinction between *Is* and *Ought* with respect to his Transcendental *a priori* account of moral concepts and rules aims to show that the *categorical imperatives* are independent of all empirical experience and knowledge. Yet this means that they must also be independent of moral practice. From where did Kant develop his transcendental conception of morality, the *a priori* Fact of Pure Reason, if not from his empirical experience in society? This relation remains only intuitive and unexplainable in his Transcendental epistemology. The difficulty is how Kant can intuitively arrive at the absolute moral *Ought* merely from knowledge of what *Is*, i.e., relative empirical knowledge of human moral conduct including his own? It seems that the idealizations of the *categorical imperatives* and the *kingdom of ends* are conceived only to show our ideal expectations to assign human determination, which cannot be achieved practically.

This can be seen as similar to the theory of absolute truth, that we can never know but only visualize, since, according to neo-Kantians, like Popper, Putnam and others, who actually identify absolute truth with unknown reality, we cannot accept relative truth. Nonetheless, pragmatically, we prove our hypotheses based upon our available-accepted proof-conditions. Perhaps Kant might suggest that *relative moral rules* that are practically proved true are to be used in personal and social life, which cannot be any ideal aim to try to look for. Without an empirical epistemology of truth and practical morality, we cannot even think about them and their idealizations. Hence, it can be concluded that we cannot move from the *Is* of our empirical experience matter-meaning to the *Ought* of our expectations, which without our experience remains meaningless formalism and therefore remains inapplicable to our *Is* with respect to our practical moral conducts and cannot affect our personal and social life. Indeed, in 1790 Kant became more pragmatic and made the distinction between the final purpose we strive toward and the *highest good in the world* that we can achieve, similar to Spinoza (Kant, *CJ*: 450; Nesher 1994, 1999).

The moral law is reason’s formal condition for the use of our freedom and hence obligates us all by itself, independently of any purpose whatever as material condition. But it also determines for us, and a priori, a final purpose, and makes it obligatory for us to strive toward [achieving] it; and that purpose is the *highest good in the world* that we can achieve through freedom. (Kant, *CJ*: 450)

This was Kant’s endeavor, to explain in his *Anthropology from a Pragmatic Point of View* that the moral empirical-meaning *matter* cannot be understood without the *form* of the Transcendental *moral concepts* and *laws* such that the final purpose will eventually direct practical conduct (cf. Kant, *APP*, 1798: Book III: On The Faculty of Desire). However, in Kant’s Transcendental presuppositions of the knowledge of physical reality, that cannot overcome the gap between Pure Reason and the Understanding with their *a priori* assumptions without his mystical, imaginative *schematism*, that cannot serve as a bridge between the *a priori* *empty pure concepts* and the *sensual blind objects*, the evolvement of the empirical concepts cannot be achieved and the logical judgment, as the basis of all our knowledge of nature, cannot be formed (cf. Schema [4]). Therefore, the question is whether the known final purpose of morality can make it obligatory for us to strive toward gradually achieving the *highest good in the world* through freedom and makes it obligatory for us to strive toward practical moral conduct?

Hence, it is interesting to explain the Kantian conception, and the role, of *Empirical* *Apperception* in Peircean realist epistemologyThe Proof of the Truth of the Normative Moral Rule of Conduct.

**[10] The Kantian Pragmatic Point of View *Elevating the* Experience of Empirical Cognition *into The Unity of Intuition and Rational Discursive* by, Let Us Say as *Epistemic Logic***

***Epistemic Logic***

--------------------------------------------*Empirical* *Apperception*-------------------------------------

Operation of **Imagination**-Reflective Self-Control-Interpretation-Synthesis in Perceptual Judgment

Operation of **Imagination**-Reflective Self-Control-Interpretation-Synthesis in **Practical Reason**-

**The Proof of the Truth of the Normative Rule of Conduct**

*Transcendental Logic**Transcendental Aesthetic*

*Analytic**Principle Analytic Concept Moral Feeling of Desire*

Person Discover *a priori* Anticipating the Evaluatingand Accepting

with a *will* *Practical Principle* *Ethical Concept of Conduct Proving True Rule of Conduct*

**Abduction (C(A**➞**C)** ➞**AAb) + Deduction((A**➞ **C) A)**➞**CDd)+Induction((AAb, CIn)** >**(AAb**➞ **CIn)**

Situational Concept Hypothetic Principle, Concept Principle, Concept Normative Rule of Conduct

Discovery the ethical habit To predict the *concept* To evaluate and prove the truth of

and the principle of conduct: ***Is*** of expected conduct: ***Ought*** *ethical Rule of Conduct* when the

(Kant, *CPrR*: 89, 101, 102, n.509, n.512). *concept* CIn represents this objet: ***Is***

Does the Practice of Pure Practical Reason *Ought* hint to the practical Deed*Is*in society(Kant, *APP*: #7)?

We cannot prove the practicality of the *Ought* of Pure Practical Reason by intention only “to strive toward it” without proving the truth of our knowledge of the social reality *Is*. Yet this cannot be done by Kant, since he could not explain with his Transcendental logic how we can know how the Pure Understanding and Pure Reason can eventually reach the reality they intend to, the sensual intuition of objects and pure moral practice, respectively, to reach the deed in the real world and to prove its true representation of the cognitive relation of *Is Ought Is***.**

The epistemological alternative to the Kantian gap between transcendentalism and empiricism is to consider the Spinozist epistemology in which everything is in nature. This does away with the need to invent the domain of unknown *noumenon* subject in explaining practical moral conduct. The Spinozist ethical theory of human freedom as relative to one’s knowledge of oneself and reality, the truth of which is relative to the available *proof-conditions*, entails that any human freedom is a natural capacity relative to one’s personal capacity with respect to the reality one lives and conducts oneself in; to implement one’s ethical concepts and conduct. According to Spinoza, our freedom in nature is the personal inner causality, the *conatus*, which is relative to our knowledge of ourselves and of the external reality in which we endeavor to implement our ethical *dictates of reason*. Moreover, this epistemology overcomes the gap between the Kantian absolute moral freedom to realize the *categorical imperatives* and the moral practical deeds (Nesher, 1994, 1999).

Happiness is reached when the person has developed his or her humane and moral personality, purposes, and abilities in their creative and ethical decisions and conduct. Pursuing external matter and pleasures just appears to be desired happiness but is deceptive and ends in frustration (Kant, *GMM,* 4:446 1785; Schmidt (2007); Robert B. Louden, Kant's Impure Ethics: From Rational Beings to Human Beings, 2000; cf. *GMM*: 387 Preface. 4:441-The harmony).

\*According to Spinoza, the mind and body and the mental and the physical are united in nature as two attributes. This epistemological explanation à la Spinoza can show how our knowledge of ourselves and physical nature allows us to theorize about ethics and to explain ethical conduct, as opposed to the Kantian impasse between the form of Pure Practical Reason and the sensual intuitions of objects and human moral conduct. The epistemological question is: Is Kant’s *Anthropology from a Pragmatic Point of View* a continuation of his Transcendental critical philosophy or the intended empirical epistemology by which to develop a practical deviation from his Copernican Revolution in the direction of the Peircean contra-revolution, as developed in the latter’s Pragmaticist epistemology?

(Kant, Third Section**,** *GMM*: 4:446-463)

*The transition from metaphysics of moral*

*to the critique of practical reason*

The concept of freedom is the key to the

explanation of the autonomy of the will

The counterpart of a metaphysics of morals … would be moral anthropology, which, however, would deal only with the subjective conditions in human nature that hinder people or help them in *Fulfilling* the laws of a metaphysics of morals. It would deal with the development, spreading, and strengthening of moral principles (in education in schools and in popular instruction), and with other similar teachings and precepts based on experience. (Kant, *GMM*: 1785, 6:217)

It seems that Kant develops his empirical anthropology in order to connect his laws of the metaphysics of morals with their employment in humans’ experience and conduct in life.

Everything gravitates ultimately toward the practical; and in this tendency of everything theoretical and everything speculative in respect to its use consist the practical value of our cognition. This value, however, is an *unconditioned* value only if the end to which the practical use of cognition is directed is an unconditioned end. The only unconditioned and finalend (ultimate end) to which all practical use of our cognition must lastly refer is morality, which for that reason we also call the *plainly* or *absolutely practical*. And that part of philosophy which has morality as its object would accordingly have to be called *practical* philosophy …, although every other philosophical science may also contain its practical part, that is a direction concerning the practical use of the theories set forth, for the purpose of realizing certain ends. (Kant, *Logic* 1800: Introduction. Translated 1974: 94-95)

It is interesting to note that Kant, probably at the end of his philosophical career, accepted that all our cognitions are intended for practical use, which is a position that differs from that of his first and third Critiques. The theoretical and aesthetic disciplines, in which the freedom to reach the practical uses is natural and relative, are distinct from Pure Practical Reason, in which the condition of morality is absolute freedom to act upon the *categorical imperatives* since no morality can work otherwise. Indeed, as in Spinoza’s *Ethics*, all our cognitions are proved true relative to their proof-conditions and our moral rules, and the freedom to apply them practically depends on our knowledge of ourselves and the reality we operate in, which historically changes and evolves with the structure of societies (Spinoza, *Ethica*: …, Nesher, 2002: X, 1994, 1999). Kant’s late, general, conception of knowledge and practice probably influenced Peirce in his development of the conception of the three normative sciences, Theoretical, Ethical, and Aesthetical, as aimed practically to elevate human life in nature and society (Peirce, *EP*II: #27 1906; Nesher, 2007a).

It seems that Kant, in his late writing, is trying to understand the “pure interest of reason” to conform to ordinary knowledge; that is, to explain pure reasoning as empirical reasoning that includes inclination not only as an empty *form*, but also as *matter*,yet still without relation to objects, as a *sense-free inclination* (cf. Kant, *CJ*: V, 211’-212’.

But just as there must be principles in a metaphysics of nature for applying those highest universal principles of nature in general to objects of experience, a metaphysics of morals cannot dispense with principles of application, and we shall often have to take as our object the particular *nature* of human beings, which is cognized only by experience, in order to *show* in it what can be inferred from universal moral principles. But this will in no way detract from the purity of these principles or cast doubt on their *a priori* source. – This is to say, in effect, that a metaphysics of morals cannot be based upon anthropology but can still be applied to it.

The counterpart of a metaphysics of morals, the other member of the division of practical philosophy as a whole, would be moral anthropology, which, however, would deal only with the subjective conditions in human nature that hinder people or help them in *fulfilling* the laws of a metaphysics of morals. (Kant, *GMM*, 6:216-217)

The first epistemological difficulty is how anthropology is possible as a science if it is only subjective. The subjectivity of anthropology is evident from the fact that it is based on reflective judgments, which, as in the aesthetic domain, are based only on subjective feelings. Moreover, how can Kant bridge the gap between the pure reason of morality and the sensual experience of anthropology without the help of the pure Understanding, without which knowledge of nature is completely impossible? In the end, this must lead Kant to skepticism about the possibility of making pure practical morality practical in real human life (Nesher, 2005). Peirce tries to solve this Kantian difficulty.

Since the normative sciences are usually held to be three, Aesthetics, Ethics, and Logic, and since he, too, makes them three, he would term the mid-normative sciences ethics if this did not seem to be forbidden by the received conception of the term. He accordingly proposes to name the mid-normative science, as such (whatever its content may be), *Antethics*, that is, that which is put in place of ethics, the usual second member of the trio. It is the writer’s opinion that this *Antethics* should be the theory of the conformity of action to an ideal. Its name, as such, will naturally be *practics*. Ethics is not practics, first, because ethics involves more than the theory of such conformity; namely, it involves the theory of the ideal itself, the nature of the *summum bonum*; and secondly, because, in so far as *ethics* studies the conformity of conduct to an ideal, it is limited to a particular ideal, which, whatever the professions of moralists may be, is, in fact, nothing but a sort of composite photograph of the conscience of the members of the community. In short, it is nothing but a traditional standard, accepted, very wisely, without radical criticism, but with silly pretense of critical examination. The science of morality, virtuous conduct, right living, can hardly claim a place among the heuretic sciences. (Peirce, *Normative Sciences*: *EP* II #27 1906: 377)

Of the Normative Sciences, three are generally recognized, relating respectively to how our Feelings, our Energies, and our Thought should be self-directed. … (Peirce, *Normative Sciences*: *EP* II #14 1903, #18 1903, #19 1903, #27 1906: 371ff. esp. 377ff. “heuretic science” - empirical)

The question is about Peirce’s conception of the normative sciences: first, how do they endeavor to represent different segments-domains of reality, and second, how do they do so? Moreover, logic, not theoretical science, can do so, since logic, or, better, the *epistemic logic* that represents our cognitive confrontation with reality, is an essential component of any normative science, and indeed, all cognitions, implicitly, practically and rationally (Nesher, 2016, 2018, 2020).

Epistemic logic is, let us say, the Boolean “laws of thought,” representing our *cognitive confrontation with reality*, which enables us to sustain our self-controlled conduct in it. This *confrontation* is embedded in what epistemic logic represents.

The truth or the falsity of our perceptual judgments:

**[11] Epistemic Logic: Confrontation in Logical Reality through Coherent Interpreted Meanings of Three Inferences in the Quasi-Proof of the Truth of Perceptual Judgment:**

**Meaning and Validity of Inferences, Coherency, Proving True Perceptual Judgment**

*Hypothesis* *Prediction* *Evaluation* Proof Truth

**Perceptual signs Inferential Prediction Empirical Evaluation Perceptual judgment,**

**Ab(C, A➞C) ➾A)** + Dd((A➞C), A)➞C) + In((AAb, CIn)=❥Prob. m/n(AAb ➞Cin)) = CIn is AAb

**Icon Index Icon, Index Symbol:** **Judgment**

⇘ ⇙ ▲

**Truth Conditions** = Duality= Comparison ❙

⇙ ⇘ ❙

**Logical Reality: *Confrontation in Reality*** ❙

⇙ ⇘ ❙

**Internal Proof-Condition**: *Incoherency Coherency* ❙

▼ ▼ ❙

Hesitation Assurance ➠ Assertion

❙

❙  **Representing** **Object**P by

❙ **Perceptual Judgment:**

▼ “This [CIn] is a stone [AAb]”

**Reality**: **Object**P

In our perceptual experience, we intuitively *reflect* upon its operation to *self-control* the *meaning-coherence* of the two perceptual components, the sight and the touch of the eventual object, be it the Peircean *immediate object* or the Kantian *blind object*. Thus we can cognize the *validity* or *invalidity* of the interpretation in the cognitive operation of proofs.

In contrast with the above, *epistemic logic* can prove the truth of our moral laws to act by knowing the world-nature in which we behave and act, as components of nature. Spinozistically speaking, we can accomplish our free moral imperatives to be embedded in nature and thus accomplish our duties. However, Kant had to find an explanation of how we can accomplish our moral duty in the domain of nature given the epistemic schism between the domain of morality and the a priori free categorical imperative of the transcendental subject. Natural causality blocks reason with its *a priori* free intentions from operating outside nature.

[We said that] reason, when it considers nature theoretically, has to assume the idea that the original basis of nature has unconditional necessity. But when it considers nature practically, it similarly presupposes its own causality as unconditioned (as far as nature is concerned), i.e., its own freedom, since it is conscious of its [own] moral command. Here, however, the objective necessity of the action, in other words, duty, is being opposed to the necessity that the action would have if it were a [mere] event with its basis in nature rather than in freedom (i.e., the causality of reason); and the action that morally is absolutely necessary is regarded as quite contingent physically, i.e., [we see] that what *ought* necessarily to happen still fails to happen on occasion. It is clear, therefore, that only because of the subjective character of our practical ability do we have to present moral laws as commands (and the actions conforming to them as duties) and does reason express this necessity not by *is* (i.e., happens) but by *ought to be*. (Kant, *CJ, 1790*: # 76—403)

Indeed, Kant’s problem is how to combine the theoretical understanding of nature and its causality with human causality as unconditioned and free. How to combine the causalities of nature and human freedom?

**8. Kant, in his late research looks for help in Spinoza’s Realist Epistemology**

According to Spinoza, human morality is a component of natural causality, like other components of nature. If infinite nature includes all of its components with their effectivity, then freedom is only relative to their powers within global nature. We can make the general claim that according to Spinoza the freedom of all modes in nature does not contradict its determinism, but is the self-determination of those natural modes-elements yet are relative in their powers with respect to other modes-components of nature.

This would not be the case if we consider reason, regarding its causality, as being without sensibility (the subjective condition for applying reason to objects in nature), and hence as being a cause in an intelligible world that harmonized throughout with the moral law. For in such a world there would be no difference between obligation and action, between practical law that says what is possible through our doing. It is true that an intelligible world in which everything would be actual just because it is (both good and) possible—and, along with this world, even freedom, its formal condition—is for us a transcendental concept that is inadequate for a constitutive principle for determining an object and its objective reality. Yet [the concept of] freedom serves us as a universal *regulative* principle because of the (in part sensible) character of our nature and ability, and the same applies to all rational beings connected with the world of sense, in so far as our reason is capable of forming a representation of them. That principle does not objectively determine the character of freedom as a form of causality; rather, and with no less validity than if it did do that, it makes the rule [that we ought] to act according to that idea a command for everyone. (Kant, *CJ,* 1790: # 76—403-4; cf. *GMM,* 1785 4:462)

We can see how Kant hypothetically comes close to Spinoza’s conception of freedom as causality in nature as “an intelligible world that harmonized throughout with the moral law. For in such a world there would be no difference between obligation and action, between practical law that says what is possible through our doing.” However, since Kant does not have any theory of truth to prove our representation of reality, and, thus, all that we can conceive in our sensual experience, and thus we cannot know the things in themselves, the noumena or the supersensible, and, therefore, Kant cannot use them as the common background to unite the Transcendental a priori theoretical Understanding and practical reason with the experiential sensations. This seems to contradict some of the interpreters of Kant’s philosophy who aim to show that there is unity of the transcendental and the empirical components in order to facilitate his moral theory. Nevertheless, it seems that Kant comes closer to Spinoza’s conception of Nature and Freedom (Kant, *CPuR*: B82-88; Paul Guyer, 2005a/b).

It is this causality’s *determination* whose basis is contained, in a way not otherwise explicable, in the intelligible that is thought of when we think freedom (just as in the case of the intelligible that is supersensible substrate of nature). (Kant, *CJ*: 195-196)

The similarity between Spinoza’s conception of nature and Kant’s conception of God or even the supersensible is that they are used as the frameworks to connect the domain of theoretical knowledge with the practical moral-ethical domain, to enable our explanations of moral conduct in nature-society. About this issue, Guyer suggests his own interpretation of Kant’s discussion of Spinoza in his *Opus Postumum*:

Kant’s numerous references to Spinoza in his final writings are only meant to emphasize the *difference* between his own systematicity of human thought as a product of reflective judgment and what he took to be the dogmatic monistic metaphysics of Spinoza … (Guyer, 2005c: 2/27).

The epistemological difficulty is whether Kant, in his later writings, managed to overcome the gulf between the transcendental subject and empirical human beings. as Guyer suggesting about Kant “own systematicity of human thought as a product of reflective judgment” and moreover, is Spinoza’s philosophy “dogmatic monistic metaphysics” as Schelling and his followers suggesting. Alternatively, Spinoza’s realist epistemology can explain the unity of the mental and the physical in nature and thus to show that we don’t need to postulate any transcendental a priori assumptions which cannot be proved true to explain human knowledge and ethical conduct (Nesher, 1979a, 1994a, 1999). Guyer tries to show that the all-embracing Kantian philosophical system of reality, as based on our reflective judgment, actually holds for him only in aesthetic judgment, which remains subjective. This is in contrast with the logical judgment of natural sciences and the moral judgment, based on a priori transcendental moral concepts and laws, that actually cannot be applied to empirical human conduct.

Legislation through concepts of nature is performed by the understanding and is theoretical. Legislation through the concept of freedom is performed by reason and is merely practical. Only in the practical sphere can reason legislate; with regard to theoretical cognition (of nature), all it can do (given the familiarity with laws that it has attained by means of the understanding) is to use given laws to infer consequences from them, which however remain always within nature. But the reverse does not hold: if rules are practical, that does not yet make reason *legislative*, since they might only be technically practical. (Kant, *CJ*: Introduction II, 5:174-6, 1790; cf. on Spinoza: *CJ*: #88-453).

Following the Peircean conception of the three Normative Sciences, Theoretical, Ethical and Aesthetical, it can be shown that artworks are aesthetic modes of representing reality by the artists and can be proved true (Kant, *CJ*: Introduction II: 175-6, Guyer, 2005: 2/27, Nesher, 2007a, 2009, 2020).

I suggest that Kant, in his final writings, the *Opus Postumum*, elaborated on the conception of God and Nature-Worldin connection with Spinoza in order to overcome the gulf between transcendental freedom and practical conduct in his first two Critiques, which he already tried to resolve in his last Critique. However, Kant misunderstood Spinoza’s realist epistemology which he developed by understanding nature as the infinite plenum in which we know the two attributes, Extension and Thought, and how we can develop our knowledge of particular things in it.

According to Spinoza, human beings are a union of mind and body and thus the *dictates of reason* of *moral ideas* and *practical conduct* of persons in society are two components of behavior. Eventually, by living to develop their essences, they accomplish their virtues in moral conduct. As an atheist, and being cautious of attacks from the religious establishment, he identified nature with God, in contrast with Guyer’s interpretation of Spinoza (Guyer, 2005c: 20/27). Contrariwise, Kant uses God to explain his pure morality based on his conception of freedom as absolute independence from the causality of nature. Therefore, humans and their morality can be explained only by the idea of God. Kant’s conception of “God and the world” is the background that connects the domain of the theoretical science of the Understanding and the practical moral domain of Reason to explain the connection between human knowledge and ethical life, as he attempted to do earlier with the conception of the *supersensible substrate* of nature and morality. For example:

*Spinoza’s* idea of the highest being – of intuiting all supersensible beings in God. Moral-practical reason. *Transcendental idealism. Ens summum* and *ens entium* (Kant, *OP*: 21:12; cf. 21:15, 21:21)

God is not the world-soul. Spinoza’s concept of God and man, according to which the philosopher intuits all things in God, is enthusiastic (*conceptus fanaticus*).

God and the world. A system of transcendental philosophy, of technical-theoretical and moral-practical reason.

The concept of God is that of the being as the highest cause of world-beings as a person. How the freedom of a world-being is possible cannot be proved directly; it would only be practicable in the concept of God, if he were assumed. (Kant, *OP*: 21:19)

Since we live in a real life, we cannot accept the categorical imperative as the source of absolute-ideal ethical rules. Rather, we accept ethical rules as relative to the real situation in which we live, so that we will prove its truth in the specific situation and, thus, be able to conduct ourselves accordingly, enhance our lives practically, and live better. This suggested explanation differs from what Kant suggested: “Act only according to that [*maxim*](https://en.wikipedia.org/wiki/Maxim_(philosophy)) whereby you can, at the same time, will that it should become a universal law” (Kant, *GMM*-1785: pp. 21-55, 55-72), Rather, act according to the universal law as it can become the *maxim* applicable to the real situation. And here we should note the difference between utilitarianism concerning the enhancement of the happiness of most people, which *a la* Kant is only a *hypothetically good system*, from the Kantian *absolute moral system* based on the *categorical imperative*. This is so, because, for Kant, morality should be absolute, like *logic* and *mathematics*, whereas good is similar to our knowledge of theoretical sciences, which is intended for *technical-practical* conduct in contrast with *moral-practical* reason (Kelsen, 1991: 13-14).

According to Kant, the *moral* categorical imperative *rules* are distinguished from *laws* of *justice*, and, further, from the hypothetical imperatives of skill-technical rules inferred from our theoretical knowledge of reality. Thus, we arrive at the realist conception of *moral rules, laws of justice,* and *theoretic technical instructions* versus Kant’s *categorical imperative* of moral conduct, and *technical-practical* *instructions* of conduct.

The alternative to both *hypothetical* and *categorical* systems is the true ethics that considers the life of all, based on the Spinozist conception that persons, by knowing themselves, their essences, and their society can live together affluently and happily. This is an ideal of complete knowledge and sincerity, which, at best, we could find in small communities like the kibbutzim in pioneer-era Israel of the early twentieth century. The central question is, how can we be ethical in the divergent societies we live in and how do we confront the cruelty of some people? The ethical life of people is not only the formulation of ethical imperatives, maxims, rules and laws, but also the structure of society, which includes the interests of its members, both personal and social-collective. This is achieved through people’s knowledge of their own essences and the structuring of common society as close as possible to the *kingdom of ends,* which allows them to be true to themselves and society, to develop their essential abilities, and to live productively and happily.

Human free will is internal causation vs. external causation, which can restrict the subjective will. According to Spinoza, by understanding nature, we can find the laws that enable humans to accomplish, yet relatively, their will to act in nature. (cf. Kant *GMM*:432-433; *LoE*: 171-6)

The subject determines itself (1) by technical-practical reason, (2) by moral-practical reason, and is itself an object of both. The world and God. The first is appearance in space and time. The second according to concepts of reason, that is, a principle of the categorical imperative.

The knowledge of oneself as a person who constitutes himself as a principle and is his own originator.

God and the world are both a maximum. The transcendental ideality of the subject thinking itself makes itself into a person. Its divinity. I am in the highest being. According to Spinoza, I see myself in God who is legislative within *me*. (Kant, *OP*: 22:53-54)

The question is whether Kant can combine the conceptions of theoretical reason and practical reason to make moral reason practical in sensual experience and theoretical reason true and then practical in life. In other words, whether he can explain the medium, nature or God, or metaphorically together, to move from vague metaphysical assertions to “the sources from which certainty therein can be derived, and certain criteria by which it may distinguish the dialectical illusion of pure reason from truth.” (Kant, from a draft to Reinhold Bernhard Jachmann, January 14, 1800, AK 8:441). We can see that Kant did not understand Spinoza’s conception of nature, which only for the sake of caution (*caute*) he identified with God, and hence, Kant considers God and nature as two different entities, which we can unite together, like Spinoza (Kant, *OP*: 21:34-ff.; 59):

And the cosmotheological proposition: “there is a God,” must be honored and obeyed in the moral-practical relation just as much as if it were to be expressed by the highest being, although no proof of it takes place in technical-practical respect, and to believe or even wish for the appearance of such a being would be an enthusiastic delusion - taking ideas as perception.

It can be said without qualification: “there are no gods; there are not worlds,” but rather: “there is one world and there is one God” in reason, as a practically-determining principle.

There is a fact of moral practical reason: the categorical imperative, which commands for nature freedom under laws and through which freedom itself demonstrates the principle of its own possibility; the commanding subject is God.

This commanding being is not outside man as a substance different from man. [It is rather,] the counterpart to the world represented as the complex of all possible beings (their totality), as the counterpart [of God] in space and time, as absolute *a priori* unity in intuition. Like God (as the supersensible principle which combines the manifold of the world through reason) the world is thought *a priori*, as absolute unity. These two ideals have practical reality.

A being which includes the whole of all possible sense-objects is the *world*, (A being in relation to whom all human duties are likewise his commands, is God.) (Kant, *OP*: 21:21)]

God is the commanding moral categorical imperative within human subjects, who can be naturally freed to direct their lives in the natural world. Thus, moral conduct can be practical in our life, and thus, God inside us and the nature in which we live allow us to make our morality practical. This, then, is the mode in which Kant comes close to Spinoza to make rational morality practical in reality. Nature is not mechanical and human freedom in nature is relative to the subject’s self-control in reality. Indeed, due to other causes in the World-Nature, the freedom of human beings to accomplish their *dictates of reason* is relative to the power of other causes compared to the power of action of the human subject itself.As I showed above, in his late philosophy Kant tried to solve the difficulties in his three Critiques by coming close to Spinoza’s realism.

**REFERENCES**

Allison, H.E. (1986) “Morality and Freedom: Kant’s Reciprocity Thesis.” *Philosophical Review*, XCV, No.3 (July 1986)

Beck, L.W. (1960) *A Commentary on Kant’s Critique of Practical Reason*. Chicago: The University of Chicago Press.

Cassirer, H. W. (1938) [Commentary on Kant's Critique of Judgment](http://theses.gla.ac.uk/80150/),  Philosophy Vol. 13, No. 52 (Oct., 1938), pp. 486-488 (3 pages) Published by: [Cambridge University Press](https://www.jstor.org/publisher/cup)

Faulkner, R. and Ziegfeld, E. (1969) *Art Today: Introduction to the Visual Arts*. Publisher Holt, Reinhart and Winston, Inc, 1969.

Gödel, K. (1951) “Some Basic Theorems on the Foundations of Mathematics and Their Implications.” *Kurt Gödel Collected Works*, Vol. III, 1995: 304-323.

Gödel, K. (1953) “Is Mathematics Syntax of Language? II.” In:F.A. Rodriguez-Consuegra, ed., *Kurt* Gödel*: Unpublished Philosophical Essays*. Basel: Birkhäuser-Verlag, 1995, 1: 710-211.II

? Hume

Kant, I. (1800) *Logic*. Translated, with an introduction, by Robert S. Hartman and Wolfgang Schwarz. Indianapolis: Bobbs-Merrill, 1974.

Kant, I. (1787) *Critique of Pure Reason*. Translated by Werner S. Pluhar. Indianapolis: Hackett Publishing Co. 1996. (*CPuR*)

Kant, I. (1782) *Prolegomena to Any Future Metaphysics*. Indianapolis: The Bobbs-Merrill Com. 1950.

Kant, I. (1781-1787) *Critique of Pure Reason*. Translated by Werner S. Pluhar. Indianapolis: Hackett Publishing Co. 1996. (*CPuR*).

Kant, I. (1782) *Prolegomena to Any Future Metaphysics*. Indianapolis: The Bobbs-Merrill Com. 1950. (*PFM*)

Kant, I. (1785) *Groundwork of the Metaphysics of Morals*. Cambridge: Cambridge University Press, 2012. Edited by M. Gregor & J. Timmermann. Introduction by Ch. M. Korsgaard. (*GMM*).

Kant, I**.** (1786-1803) *Opus Postumum.* Cambridge: Cambridge University Press (*OP*).

Kant, I. (1797) *The Metaphysics of Moral*. Edited by M. Gregor & R. J. Sullivan. Cambridge: Cambridge University Press 1996. (*MM*)

Kant, I. (1798a) *Anthropology from a Pragmatic Point of View*. Ed. R.B. Louden. Cambridge: Cambridge University Press. (*APPV*)

Kant, I. (1798b) “The project on which I am now working … must be completed, or else a gap will remain in the critical philosophy.” (Kant to C. Grave, September 21, 1798, AK 12:257. In Eckart Forster, editor Introduction to Kant’s *Opus Postumum*, Cambridge University Press, 1993: xvi).

Kant, I. (1800) *Logic*. Dover Publication Inc. New York 1974.

Nesher, D. (1978) “Methodological Changes in Spinoza’s Concept of Science.” In *Spinoza Studies: Three Hundred Years in Memoriam*. Edited by S. Fuks, The University of Haifa Press 1978:53‑64. (Hebrew).

Nesher, D. (1979a) “On the ‘Common Notions’ in Spinoza’s Theory of Knowledge and Philosophy of Science.” In *Baruch De Spinoza: A Collection of Papers on His Thought*, Edited by M. Brinker, M. Dascal & D. Nesher, University Publishing Projects 1979:35‑52. (Hebrew).

Nesher, D. (1987) "Remarks on Spinoza's Philosophy, Its Consistency, and Its Evolutionary Character." *Iyyun*, A Hebrew Philosophical Quarterly, Vol. 36, April 1987: 83-123.

Nesher, D. (1999b) “Spinoza’s Epistemology of Freedom.” Presented at the fifth “Spinoza by 2000” conference, Jerusalem 16-21 June 1999. (manuscript)

Nesher, D. (1999c) “‘Which Side Spinoza Would Have Taken (Between and Bohr) If He Had Lived to See the Scientific Development of Our Days’: An Analysis of Human Representation of the Physical Reality.” *Metadebates on Science: The Blue Book of Einstein Met Magritte.* Kluwer Academic Publishers 1999.

Nesher, D. (1999d)“[Pragmaticist Realism: The Third Philosophical Perspective as the Intermediate Point Between Metaphysical Realism and Internal Realism](https://philpapers.org/go.pl?id=NESPRT&proxyId=&u=http%3A%2F%2Fwww.jstor.org%2Fstable%2F25670300" \t "_blank).” *Journal of Speculative Philosophy*. 13 (4):257 - 293.

Nesher, D. (2000a) “Pragmatic Theory of Truth: Are Frege’s and Ramsey’s Equation ‘P Is True =P’ And Tarski’s Equivalence ‘X is true if, and only if, P’ True? Presented as the fourth international fellows’ conference of Pittsburgh Center for Philosophy of Science, Bariloche, Argentina, June 22-26 2000.

Nesher, D. (2000b) “How to explain Our Knowledge of External Reality: The controversies About ‘Facts,’ “True Proposition’ and ‘Truth-Conditions’ and the Pragmaticist Solution.” (Manuscript-July 2000)

Nesher, D. (2001) “The Three Languages of Wittgenstein’s *Tractatus*, Ordinary, Philosophical and of Natural Science: Can They Explain Human Representation of Reality?” For the conference in Bologna Italy. Dan Nesher, Department of Philosophy, University of Haifa, Israel.

Nesher, D. (2002a) “Peirce’s Essential Discovery: ‘Our Senses as Reasoning Machines’ Can Quasi-Prove Our Perceptual Judgments.” *Transactions of the Charles S. Peirce Society*, 2002, Vol. XXXVII, No. 1: 23-58.

Nesher, D. (2002b) “The Pragmaticist Conception of ‘Propositions,’ And That Our ‘basic facts’ Are the ‘True Propositions’ The Perceptual Judgments We Quasi-Proved in Our Perceptual Processes.” Presented at the European Society for Analytic Philosophy: Fourth European Congress for Analytic Philosophy Lund June 14-18, 2002.

Nesher, D. (2002c) *On Truth and the Representation of Reality*. A Collection of Inquiries from A Pragmatist Point of View. University Press of America.

Nesher, D. (2003a) “Epistemology of Creation, Interpretation and Evaluation of Artworks as an Aesthetic Language Representing Reality.” Presented at the International Society of Phenomenology, Fine Arts, and Aesthetic: The Eighth Annual Conference. Harvard Divinity School, May 16-18 2003.

Nesher, D. (2004) “On the Epistemology of Physical and Psychological Sciences: A Pragmaticist Alternative to the Shortcomings of Analytical Philosophy (“Scientism”) and Hermeneutic Phenomenology (“Artism”).” Presented at the 5th International Fellows Conference of Pittsburgh Center of Philosophy of Science in Poland, Rytro? May 26-31, 2004.

Nesher, D. (2004b)“Meaning as True Interpretation of Cognitive Signs: A Pragmaticist Alternative to the Shortcomings of Analytical Philosophy and Hermeneutic Phenomenology Conceptions of Meaning, Interpretation, and Truth.” Presented at the Conference on Meaning and its Meanings in Life and in Different Disciplines. December 14-15, 2004, University of Haifa.

Nesher, D. (2004c) **“**It Is an Illusion That Artworks Being Fictitious Make-believes and Illusions While They Are Aesthetic Modes of Representation of Reality.” Presented in the International Society of Phenomenology, Fine Arts, and Aesthetic: The Ninth Annual Conference on Human Creation Between Reality and Illusion: art, dance, digital art, film, light, music, theatre. May, 2004, Harvard Divinity School, Cambridge MA).

Nesher, D. (2004d) “How Can I Know My Mind and Other Minds? The Pragmaticist Epistemology of Human Knowledge of Psychological Reality and Social Communication Criticizing the Cartesian and the Wittgensteinian Philosophical Perspectives.” (Manuscript)

Nesher, D. (2005a) “Epistemology of Aesthetic Experience: Criticizing and Reconstructing Kant’s Aesthetic

Theories of Genius Creativity and Judgment of Beauty.” At the International Society of Phenomenology, Fine Arts and Aesthetics, the 10th Annual Conference, May 27-28, 2005. Harvard, Cambridge Massachusetts.

Nesher, D. (2005b) “Pragmaticist Explanation of the Knowledge of One Own Mind and Other Minds as The Third Way Between the Individualist Phenomenalism of Schutz and Wittgenstein-Wiliams’ Cognitive Behaviorism as Social Phenomenalism: Can Wittgenstein Explain His Phenomenologico-Philosophical Investigation of Our Knowledge of Our and Other Minds,” For Wittgenstein International Symposium, Kirchberg, 2005).

Nesher, D. (2005c) “Epistemology of Aesthetic Experience: Criticizing and Reconstructing Kant’s Aesthetic Theories of Genius Creativity and Judgment of Beauty.” Presented at the International Society of Phenomenology, Fine Arts and Aesthetics, the 10th Annual Conference, May 27-28, 2005. Harvard, Cambridge Massachusetts,

Nesher, D. (2005d) “Pragmaticist Explanation of the Knowledge of One Own Mind and Other Minds as The Third Way Between the Individualist Phenomenalism of Schutz and Wittgenstein-Wiliams’ Cognitive Behaviorism as Social Phenomenalism: Can Wittgenstein Explain His Phenomenologico-Philosophical Investigation of Our Knowledge of Our and Other Minds,”

Nesher, D. (2005a) “Epistemology of Aesthetic Experience: Criticizing and Reconstructing Kant’s Aesthetic

Theories of Genius Creativity and Judgment of Beauty.” Presented at the International Society of Phenomenology, Fine Arts and Aesthetics, the 10th Annual Conference, May 27-28, 2005. Harvard, Cambridge Massachusetts.

Nesher, D. (2005b) “Pragmaticist Explanation of the Knowledge of One Own Mind and Other Minds as The Third Way Between the Individualist Phenomenalism of Schutz and Wittgenstein-Wiliams’ Cognitive Behaviorism as Social Phenomenalism: Can Wittgenstein Explain His Phenomenologico-Philosophical Investigation of Our Knowledge of Our and Other Minds,” For Wittgenstein International Symposium, Kirchberg, 2005).

Nesher, D. (2007a) “How to square (Normo, CP: 2.7) Peirceanly the Kantian Circularity in The Epistemology of Aesthetics as A Normative Science of Creating and Evaluating the Beauty of Artworks.” Paper presented at the Conference on Charles Sanders Peirce’s Normative Thought, University of Opole, Poland, June

Nesher, D. (2010b) “The Role of Productive imagination in Creating Artworks and Discovery Scientific Hypotheses.” Presented at the 33rd Wittgenstein International Symposium, Kirchberg, Austria, August, 8-14, 2010. Published in the Volume of the Symposium: *Image and Imagining in Philosophy, Science and the Art*. Eds. E. Nemeth, R. Heinrich & W. Pichler. Vienna: older-Pichler-Tempsky. Kirchberg 2010.

Nesher, D. (2011) “Gödel on Truth and Proof: Epistemological Proof of Gödel’s Conception of the Realistic Nature of Mathematics but Then Its Incompleteness Cannot Be Proved Formally.” Paper presented at 7th Quadrennial International Fellows Conference of the Center for Philosophy of Science, University of Pittsburgh, June, Ataturk University, Mugla, Turkey.

Nesher, D. (2016) "Epistemic Logic: All Knowledge Is Based on Our Experience, and Epistemic Logic Is the Cognitive Representation of Our Experiential Confrontation in Reality.” Paper presented at 8th Quadrennial International Fellows Conference of the Center for Philosophy of Science, University of Pittsburgh, June, Lund Sweden 2016. (Published in *Semiotica* 2021)

Nesher, D. (2018) “‘What Makes Reasoning Sound’ Is The Proof of Its Truth: A Reconstruction of Peirce’s Semiotics as Epistemic Logic, And Why He Did Not Complete His Realistic Revolution.” *Semiotica*

Nesher, D. (2021) "Epistemic Logic: All Knowledge Is Based on Our Experience, and Epistemic Logic Is the Cognitive Representation of Our Experiential Confrontation in Reality.” *Semiotica* 2021.

Nesher, D. (2021) *On Beauty of Artworks as Aesthetic True Representations of Reality: A Collection of*

*Pragmaticist Inquires into the Epistemology of Artistic Creation and Evaluation of Artworks.* Hamilton Books 2021-22.

Norton, D.F. ed. (1993) *The Cambridge Companion to* Hume. Cambridge University Press. 1993: Chaps. 5, 6, 9.

Paton, H.J. (1947) *The Categorical Imperative: A Study of Kant’s Moral Philosophy.* Philadelphia: University of Pennsylvania Press, 1971.

Peirce, C.S. (1931-1958) *Collected Papers*, Vols. I-VIII, Harvard University Press. [*CP*]

Peirce, Ch.S. (1869) "Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities." In *EP* I: #4.

Peirce, Ch.S. (1878) “How to Make Our Ideas Clear.” In Nathan Houser and Christian Kloesel, eds., *The Essential Peirce: Selected Philosophical Writings,* Vol. 1 (1867-1893), Vol. 2(1893-1913). Bloomington: Indiana University Press. [*EP*]

Peirce, Ch.S. (1895) “Of Reasoning in General.” In *The Essential Peirce: Selected Philosophical Writings,* Volume 2 *(1893-1913)*. Ed. by the Peirce Edition Project. Bloomington: Indiana University Press. [*TEP*]

Peirce, C.S. (1897) "Recreations in Reasoning." In Matthew E. Moore, ed., *Philosophy of Mathematics, Selected Writings [PM], Charles S. Peirce*. Bloomington and Indianapolis: Indiana University Press, 2010: # 15.

Peirce, Ch.S. (1898) "First Rule of Logic." *CP*: 1.135-40. *EP*II: #5.

Peirce, C.S. (1903a) “The Three Normative Sciences.” *The Essential Peirce: Selected Philosophical Writings,* Volume 2 *(1893-1913)* Lecture V. Ed. by the Peirce Edition Project. Bloomington: Indiana University Press.: #14 [*TEP*]

Peirce, Ch.S. (1903b) "What Makes a Reasoning Sound?" *EP*II: #17.

Peirce, Ch.S. (1903c) “Pragmatism: The Normative Sciences.” Peirce, *CP*: 5.18, 1903)

Peirce, C.S. (1931-1958) *Collected Papers*, Vols. I-VIII, Cambridge, Mass.: Harvard University Press. [*CP*]

Peirce, C.S. (1998) *The Essential Peirce: Selected Philosophical Writings,* Vol. 1 (1867-1893), Vol. 2(1893-1913). Ed. by Nathan Houser and Christian Kloesel. Bloomington: Indiana University Press. [*EP*]

Peirce, C.S. (1998) *The Essential Peirce: Selected Philosophical Writings,* Volume 2 *(1893-1913)*. Ed. by the Peirce Edition Project. Bloomington: Indiana University Press. [*TEP*]

Peirce, C.S. (1903) “Sundy Logical Conception.” *EPII*: #20.

Peirce, C.S. (1906) “The Basis Pragmaticism in Phaneroscopy” *EP*II: #26. 1906.

Peirce, C.S. (1907) “The Basis Pragmaticism in the Normative Sciences” *EP*II: #27, 1906.

Peirce, C.S. (1907) *Pragmatism*. In *The Essential Peirce: Selected Philosophical Writings,* Volume 2:398-433: 430-33&n49. [*EP*] Peirce, C.S. (1998)

Pereboom, D. (1991) “Is Kant's Transcendental Philosophy Inconsistent?” History of Philosophy QuarterlyVol. 8, No. 4, Hume and Kant Issue (Oct., 1991), pp. 357-372.

Popper, K.R. (1963) *Conjectures and Refutations: The Growth of Scientific Knowledge.* New York: Harper and Torchbooks 1963.

Putnam, H. (2002) *The Collapse of the Fact/Value Dichotomy*. Cambridge Mass.: Harvard University Press.

Putnam, H. (2004) *Ethics without Ontology*. Cambridge Mass.: Harvard University Press.