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A Critique of Charles Peirce's Account of the Necessary Conditions for the Possibility of Experience

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Dedication

To my best friend and wife who has lived with me through this work and knows better than any other what it means.

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Abstract

Herein is investigated the effort to establish the necessary conditions for the possibility of experience begun by Immanuel Kant and carried further by Charles Peirce. I focus my attention on Peirce's development of a Kantian strategy for discovering and proving such conditions. The conclusion that I argue for is that such an effort requires the use of a rational intuitive faculty. Both Kant and even more vociferously Peirce overtly reject the existence of such a faculty, yet, I argue, it is difficult to make sense of certain crucial discoveries in its absence.

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Introduction

Experience is that familiarity with objects that is held in such esteem. This familiarity is as evident to us as anything can be. There have been skeptical attacks against experience, against familiarity with objects. Whether ancient Pyrrhonists or more modern Humeans skeptics have argued that even though it appears as if there is contact with objects, and that this contact results in familiarity, such is not the case.[1] But what Cavell said about Hume's *Treatise* "…which few seem actually to believe but which many feel compelled to try to outsmart; as if so *much* argument just oughtn't to stand unanswered…"[2] seems true about skepticism in general to me. That we are familiar in lesser or greater degree with objects is almost incontrovertible. The trouble begins when we try and give a theoretical account of the possibility of experience of objects. Skeptical challenges become more compelling when they are addressed to the efforts of those who have sought to provide such a theoretical account.

We teach our children how to interact with objects of all varieties knowing full well that their success in preserving their lives depends on their becoming familiar with the world in which they live. We rely on the testimony of the senses in legal cases

[1] For a helpful account of philosophical skepticism, what it means, what it claims, and how strong its arguments are see Barry Stroud's *The Significance of Philosophical Scepticism*, Oxford: Clarendon Press, 1984. While my topic is not skepticism itself the reader may benefit from Stroud's assessment of the value of philosophical skepticism itself.

[2] Cavell (1979, 4).

punishing some and acquitting others based on someone's familiarity with an object or state of affairs involving many objects. We invest large sums of human and nonhuman capital in becoming more and more familiar with everything from disease and aging to new sources of energy and growing crops more efficiently. These investments have resulted in such esteemed strategies as the scientific method. Such a method promises a more careful approach to and measure of objects and their characteristics. Oppressed groups march in the street demanding changes to various objects based, at least hopefully, on their experience of those objects and how their interactions with various institutions, cultures, or technologies have adversely affected their lives. The possibility of experience of objects and the possibility of the familiarity that results are at the foundation of much of the activity of our practical lives. It is in that sense a primary datum. So, where does the skepticism seep in?

It is clear that one of the sources of such skepticism is the reality of error. If familiarity with objects is a primary datum deserving of our loyalty, then so is the reality of error. That we fail sometimes to become familiar with objects is as evident as our sometimes succeeding. This failure to become familiar is sometimes easily repairable. We simply need either more time, to attend more closely to the object before us, more powerful tools for extending the use of our senses beyond their natural capacity, or to avoid being distracted and focus our attention on the object more fully. But this itself does not lead one to skepticism even if it may be a primer for the skeptical pump.

Another and I think a far more powerful source of skepticism is our failure to provide a philosophically satisfactory theoretical account of experience. It is when some

decide to express such a theoretical account of experience, to become familiar with its essence or its nature, to know what it is to have an experience, or to be experienced, that they are accosted not only by those who doubt their proposals, but by their own sense of the difficulty of grasping experience itself in any depth. And there may be good reason for this. To become familiar with experience is what we must do. How do we grasp what is essential and necessary about experience? We cannot say that we will reflect on experience as it happens, at least not of experience ordinarily thought of as observation and induction. For this provides no necessity, universality, or certainty, at least not the kind that a philosophical account is so desirous of. But still we must say that the process of working out an account of experience is an account of grasping what one is doing while one is doing it. And by grasping experience, by becoming familiar with it I mean learning what is necessary and essential about it; only necessary and essential insight will be satisfactory for a philosophical account.[3]

It is certainly not a contradiction, not impossible, to grasp experience even in the way I am describing. Or if it is, then the situation is much worse than we imagined it to be. For if no account of experience, that is no account of familiarity with objects, is possible, then we are committed to striving for experience in a multitude of ways and with a multitude of objects while we can make nothing of what we are striving for. This practical commitment to the possibility of experience deserves a theoretical account. I can find no argument for experience being intrinsically contradictory, like say a *round*

[3] Kant speaks of the "possibility of experience". For me a theoretical account, a philosophical account, and an account of the possibility of experience are synonymous expressions.

circle, or if Anselm is right, *a being than which nothing greater can be conceived that doesn't exist*. What there are plenty of are proposals for what experience is and attacks on those proposals. To my mind the skeptic is in no safer or less risky position than the one who attempts to grasp experience looking for its essential intelligibility. The skeptic cannot give irrefutable reasons for thinking there is not experience of objects nor will it suffice to poke holes in this or that account. So, what should we believe in the in-between—another way of saying the same thing is *how should we be prepared to act when confronted with the possibility of experience*, namely with no refutation of the possibility of experience but also no satisfactory philosophical account?

William James helps us understand our rights here, if that is what we must fall back on for a defense of our project, when responding to Clifford's claim that belief should always be proportionate to evidence.[4] This maxim is sane in matters where the options between beliefs are not pressing or as James calls it *momentous*. No choice need be made. But while the choice between committing oneself to the possibility of experience and remaining aloof to such a commitment is a rather general and abstract commitment to consider, it is hard to judge it not momentous. For we stand, in such a choice, at a precipice. Either our practice of grasping objects in the way that we do when we gain experience is possible or it is not. Choose now and know that our very practice bears witness to our theoretical commitment. There is no faith without fruit. Do we act in such a way that we respect the nature of objects and their capacity to either do us

[4] James, (1992). See especially section one for James' theoretical account of a genuine option and sections eight through ten for James' examples of cases where believing beyond the evidence is warranted.

harm or benefit us? Either we do well or we live a sham; for our lives and our practices betray a commitment to what our intellect may be unwilling to assent to: a being divided against itself. Hume was one being who lamented his failure to justify theoretically experience of objects. He was willing to live inconsistently with his theoretical commitments. But even he offered no proof that familiarity with objects was impossible. He only found it problematic and continued to obey, in practice, a possible theoretical justification of experience that his theoretical and speculative work had not been able to discover.[5]

Christian Wolff, and I offer you his view not for its originality or authority, but because he was an influential figure in Kant's own thinking about the matters that he did, and because I can find nothing intrinsically wrong with the way he puts things, says that philosophy is the "science of the possibles insofar as they can be."[6] Philosophy then to Wolff's mind should demonstrate why the possibles, for my purpose the possible I am focused on is experience, can actually occur. This demonstrating is giving a reason why. I do not intend to follow Wolff through his account of how to go about demonstrating the possibility of a thing. But when Kant takes up the critique of pure reason in the text that bears the title he takes the question of the possibility of experience as a fundamental point of investigation for the critique of reason.

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[5] Hume (1977, 24-25). Hume famously admits this tension between his practice and the theoretical failure. "My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but as a philosopher, who has some share of curiosity, I will not say skepticism, I want to learn the foundation of this inference." It was to Hume's credit that he recognized the failure of a theoretical justification for his practical activity. In this sense our inquiry is Humean. We too are seeking a theoretical account of the possibility of experience.

[6] Wolff (1963,17).

Now Kant's stated goal is to satisfy reason by discovering the ground of apriori synthetic principles that enable us to amplify our cognition. His stated goal is to establish metaphysics as a science by establishing the principles that will guide reason in the metaphysical domain. But in doing so he fill in an account of the conditions for the possibility of experience. Kant takes it as settled that no such principles will be discovered *a posteriori* since empirical cognition only informs us what is but not what must be and one of the criteria for principles of reason is that they be necessary. But neither can such principles be discovered beyond the bounds of all experience since then there is no resistance to reason's claims, nothing which might be found to falsify them. "Experience can give neither guidance nor direction."[7] Thus Kant turns to the possibility of experience as a way of discovering an amplification of reason that is apriori and necessary but still tied to experience. It is this possibility of experience, an account of its necessary elements, faculties, and principles that I am interested in discovering.

Kant links his investigation into the possibility of speculative apriori reason and the possibility of experience in this way also:

> …one could establish their indispensability for the possibility of experience itself thus establish it *a priori*. For where would experience itself get its certainty if all rules in accordance with which it proceeds were themselves in turn always empirical, thus contingent?[8]

Kant takes experience as a datum. And he shows honesty in his willingness to acknowledge the certainty that accompanies experience. This is not to be confused with

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[7] Kant (1998, B6). Documentation for Kant's *Critique of Pure Reason* follows the established convention of referencing the A or B edition and associated page numbers throughout this text.

[8] Kant (1998, B5).

necessity or at least not with apriori necessity. The idea that experience might depend on principles that are only derived from experience creates a knot that cannot be untied. On such grounds there is never certainty that there is ever experience. The possibility of experience cannot be accounted for in this way. So I look to Kant specifically for his willingness to explore the possibility of experience beyond simply stating or assuming its possibility. It is the philosophical account of experience, which according to Wolff and Kant means discovering what are the necessary and essential elements and principles of experience, that I seek to deal with and to emulate in so far as the project needs or deserves continuation. In my research I focus more centrally on the faculties and elements. It would have been too much for me to consider the principles that can be derived from a discovery of elements. But this ultimately is what Kant is after: a priori-synthetic principles.

Two things must be noted at the outset about my investigation into Kant. First, I am looking for something in Kant that is not his central goal. Kant's stated goal is to show that metaphysics is possible, that *a priori* synthetic propositions are possible, of which metaphysics is one species. But Kant is convinced that Reason will not generate *a priori* synthetic propositions independently of experience. Kant then must provide an account that both must not leave the realm of experience but also must not be dependent on experience in the sense of following from it *a posteriori*. So, we see how the project of working out a philosophical account of experience becomes, for Kant, the only route to working out the possibility of apriori synthetic propositions. I am interested specifically in a philosophical account of experience. In what follows I will

need to avoid becoming entangled in issues that are central for Kant but of subsidiary interest to my project and also make central in Kant what may not be central from Kant's perspective.

Second, there are parts of Kant's system that, through this investigation, I have come to find problematic. Just what is problematic and why will emerge in the latter chapters after describing just what Kant takes to be the philosophical account of experience in chapter one of this work. For me the most fundamental insight of Kant's is the insight of *a priori* synthetic knowledge: identifying it, providing examples of it, and showing it to us that we might enlarge our understanding of the role and place of Reason in our lives. With this insight comes the introduction of a third domain of knowledge not either tautology or strictly speaking empirical in nature. The insight has profound implications and it is the insight that makes possible a non-tautological but necessary and essential knowledge of experience itself. But there are other presuppositions of Kant's that I find problematic.

The presupposition I have in mind, and that I think has had the most lasting effect on Kant's account of experience and his answer to how apriori synthetic propositions are possible, is the presupposition that understanding is purely discursive and wholly non-intuitive.[9] For if the understanding cannot grasp intuitively anything, if it is banned from ever having insight into objects of any kind that is a receiving, and a conforming, a grasping without the activity of constructing, then the following principle

[9] It is indeed foundational for Kant that understanding is discursive and sensibility intuitive. But this is a risky claim. There is nothing impossible about conceiving understanding as having an intuitive capacity properly understood.

becomes necessary, and it is a principles that inform everything that follows in the *Critique of Pure Reason*: reason has insight into what it itself produces according to its own design.[10] This emphasis on the constructive nature of Reason, and the constructivism in Kant's account of the possibility of experience, is motivated to my mind largely by the fact that the understanding in Kant is wholly discursive.

Add to the above principle the following: "we can have cognition of no object as a thing in itself, but only insofar as it is an object of sensible intuition, i.e. as an appearance."[11] Again one notes that for Kant one never encounters any object, intellectually, or as he says with the understanding. We are given appearance, but we are barred from cognition of the essential and necessary in any objects. So, the essential and necessary in objects must be constructed through the work of the understanding. But the implication has proven the greatest difficulty for Kant: namely justifying that the contributions of the understanding are themselves the categories of objects themselves. There is certainly a worry generated about our ordinary notion of experience and the notion generated by Kant's principles. I will not pursue these matters further here. They are elaborated in chapter one on "Kant's Theory of Experience" and only mentioned here to point toward that chapter.

In spite of the reservations that I have about the overall success of Kant's theory of experience it is an instructive process to note both the elements that Kant discovers given his presuppositions and also his method of discovery. More importantly his project was taken up by Charles Peirce who continued to investigate the reality of the

[10] Kant (1998, Bxiii, B130).
[11] Kant (1998, Bxxvi).

elemental conditions for the possibility of experience in his own philosophical work. So, after an analysis of Kant's theory of experience I turn to Peirce's critique and further development of a philosophical account of experience. Peirce owes much to Kant in that whether continuing the project or criticizing it much of the direction of his theory of experience is a continuation of or a rebuilding of the project that Kant began.[12] But neither is Peirce's theory entirely satisfactory. Peirce has the advantage of building on Kant's earlier efforts and so I approach Peirce with Kant in mind.

Peirce wrote extensively on the categories throughout his philosophical career. He considered them both his earliest and most significant discovery. And to make matters more interesting Peirce gives two distinct methods of discovering the categories. Both of these will be explored in detail in chapter three, especially why Peirce thought it necessary to offer a second strategy. The first method Peirce employs is Kantian in nature while the second method I will argue is anti-Kantian and also in conflict with Peirce's own earlier claims. Peirce also wrote extensively on his theory of semiotics. Semiotics has grown into a large domain of inquiry, but one is not always certain exactly what the theory is for. By linking Peirce's research into both categories and signs with a theory of the possibility of experience the two elements of experience are unified within a larger theory. This will enable us to bring Peirce's disparate interests under a common umbrella so that we may understand the intentions he had for these

[12] Brent (1993) displays an outline that Peirce wrote for a college yearbook where Peirce reports that he began the study of Kant in 1855. Karl-Otto Apel has argued persuasively for both the early and lasting influence of Kant on Peirce and also the role Kant played as a philosophical adversary for Peirce. This may be found in Apel, (1995). Murphey (1993) has also understood Peirce to be heavily indebted to Kant, especially in his early years.

elements. But one cannot understand Peirce's philosophy in absence from that of Kant. This much has already been established.

So, finally after a more detailed analysis of Peirce's revision to the central parts of Kant's theory of the possibility of experience I will offer an argument for the central problem found in these attempts to establish the theoretical possibility of experience. I will argue that the element is implicitly present in both Peirce and Kant, but it is rejected by both explicitly. So, in part I will be arguing that Kant and Peirce display the resources for a theory of the possibility of experience but at the same time reject the possibility of such resources. The element that I do not think either can do without is some form of intellectual intuition. But just where it shows up and why it is necessary will only emerge throughout the process of inquiring into the philosophical accounts of experience given by both.

That both of them reject so called intellectual intuition is incontrovertible: Kant explicitly rejects it characterizing an intuitive understanding in the following way:

> For if I wanted to think of an understanding that itself intuited (as, say, a divine understanding, which would not represent given objects, but through whose representation the objects would themselves at the same time be given, or produced), then the categories would have no significance at all with regard to such a cognition. They are only rules for an understanding whose entire capacity consists in thinking, i.e., in the action of bringing the synthesis of the manifold that is given to it in intuition from elsewhere to the unity of apperception…[13]

Peirce's rejection is more serious. He rejects not only intellectual intuition, but sensible intuition as well. This will be noted more fully later when his arguments against intuition are examined. By his lights, the very idea of an intuition is impossible or

[13] Kant (1998, B145).

incomprehensible. Peirce defines an intuition as a cognition not determined by a previous cognition and then claims that the idea of a cognition not determined by prior cognitions is incognizable. These criticisms of the idea of intellectual intuition are worthy of attention and will be taken into consideration as they arise in later chapters. But they will have to be considered alongside my claim that intellectual intuition is already in use in both Kant and Peirce's systems for a full picture to emerge.

In the end what emerges is a fuller picture of the essential and necessary elements of experience developed through the insights of Kant and Peirce. We should have a better understanding of what experience presupposes, what it is made up of, which is what I call the elemental conditions for the possibility of experience, and what methods are most suitable for discovering the necessary and essential in experience.

Chapter 1: Kant's Model of the Necessary Elemental Conditions for the Possibility of Experience

A note of indebtedness is warranted before the work commences. Coming to grips with Kant is a difficult undertaking and although time with Kant is the best way to become familiar I have relied on the work of others to help me grasp Kant's philosophy in as fair and accurate a way as possible. Specifically the work of Longunesse (1998) and Allison (2004) have aided me more than others. I have read these two scholars most closely because of their interest in interpreting Kant with the goal of not only understanding but defending Kant's philosophical claims in *CPR*. Allison's work I find unmatched in clarity and charity toward Kant's Transcendental Idealism. Longuenesse unifies the A and B deductions magnificently and integrates the different levels of synthesis in Kant's system in a most helpful way.

My purpose in examining Kant's *Critique of Pure Reason* in spite of these two excellent works has to do with my specific interests. Allison's main goal is a defense of Tanscendental Idealism as a whole and he especially has as his target the anti-idealists, originally Strawson (1966), and later Guyer (1987) and also Langton (1998). While the latter have rejected parts of Kant's philosophy, and I fall into that camp, they do so for the wrong reasons. Their interpretations lean toward naturalist solutions to problems found in Kant. I do not think that naturalism has solutions for such problems. I read Allison in order to get the best overall perspective on what Kant intended and to deal

with the most clear defense of his philosophical system. Further, I am interested in how Kant provided a framework for Peirce's own account of experience. So, unlike Allison I am investigating Kant looking forward to Peirce. My investigation in this sense is more specific and less directed at Transcendental Idealism as a whole.

Longuenesse's project is similarly much broader than mine. She states that her main goal is "devoted to elucidating Kant's intentions and results."[14] Her elucidation of the schematism is certainly the most elaborate and interesting that I have found thus far. In spite of the fact that both Allison and Longuenesse give a rather complete treatment of Kant's *Critique* neither provides to my mind a satisfactory account for why Kant takes the constructivist path that he takes. They begin with his fundamental insights, but before entering the details of the apriori elements of experience I will make an effort at saying more fully than was said in the introduction why Kant goes in the direction that he does.

My own concerns with Kant's philosophical system worked out in the *CPR* focus on how Kant's attempt to construct a metaphysics of experience are affected by his treatment of intuition. Kant states at the outset that the understanding is discursive and spontaneous while sensibility is passive and inert. I am interested not only in what elements Kant discovered but how he discovered them, and what faculties may or may not be necessary for the discovery of such elements.

[14] Longuenesse (1998, 14).

1.1 Motivations for Constructivism about Experience

Kant's *CPR* is a work motivated by the desire of reason to attain certainty, clarity, and universality. Experience itself seems to offer the hope of such certainty as greater and greater familiarity is gained of an object, but in the end Kant says, "reason…is more stimulated than satisfied by it."[15] Reason is stimulated because it gets a taste of the kind of universality and necessity it seeks as it approaches these through empirical inquiry, but only stimulated ultimately because of the nature of empirical inquiry, namely that the universality and necessity achieved are at best probable and relative to future empirical investigation. The same holds for our familiarity with experience itself. If we depend only on what is learned empirically about experience we will never gain the kind of familiarity that reason is so desirous of. We do not merely want to know what experience is like here, there, or elsewhere, but what it must be like, what it is necessarily and essentially.

Kant sets forth a principle which he claims must be followed in order to attain such familiarity: "reason has insight only into what it itself produces according to its own design".[16] Kant accepts this principle but offers little except examples of its success as evidence of its truth in the *CPR* . What Kant means by this is that reason can only work with the kinds of elements that afford it the kind of necessity and systematic unity it desires to discover. Kant notes two examples, in mathematics and natural science, where a change in strategy brought about a substantial change in the scientific status of those domains. He interprets the changes as acceptance of this fundamental insight.

[15] Kant (1998, A1).
[16] Kant (1998, Bxiii).

This change is the seed form of all that follows in the *CPR*, and it also provides the link between Kant's own aims and the aim of this inquiry. He describes the change first in mathematics:

> A new light broke upon the first person who demonstrated the isosceles triangle…For he found that what he had to do was not to trace what he saw in this figure, or even trace its mere concept, and read off, as it were, from the properties of the figure; but rather that he had to produce the latter from what he himself thought into the object and presented (through construction) according to *a priori* concepts, and that in order to know something securely *a priori* he had to ascribe to the thing nothing except what followed necessarily from what he himself had put into it in accordance with its concept.[17]

In other words, in order to put geometry on the path of a science, and here science means something like a body of knowledge with systematic unity providing necessity and certainty about the object the inquiry is about, a certain activity is prescribed by Kant. First, Kant notes that the demonstration of the character of the isosceles triangle cannot be achieved by empirical observation. It is not a matter of tracing or copying. One cannot merely note that a figure has feature F to know that F necessarily belongs to the figure. How does one achieve the necessary character of a figure? Kant's recommendation is a testimony to the profound brevity with which he sometimes communicates the most important principles. To show that a characteristic necessarily attaches to a figure the figure with said characteristic must be constructible from purely apriori elements. If a figure can be presented through construction by apriori elements, as having a characteristic F, then F necessarily belongs to the figure.

[17] Kant (1998, B xii).

Euclid's system represents a lasting testimony to the possibility of such a system of science. Point and line, two of the central elements of the Euclidean system, are apriori elements. Their source is not in experience, but in thought. One must think point and line. In line with their being non-empirical is the fact that they are not strictly speaking observable. Kant points to geometry, and he is not the first, as an exemplary type of knowledge.[18]

It might be objected that one may observe the necessity of a characteristic's inherence in an object without construction from apriori elements. But we must distinguish between the perception of necessity and the integration of the perception of the necessity of a character's belonging to an object into a systematic and unified whole constructed from apriori elements. The perception of necessity outside of systematic construction with apriori principles may be possible, but it is difficult to imagine how such necessity would be justified except by the method Kant describes, especially since Kant rejects any kind of intuitive understanding.

An intuitive understanding could perceive the necessary and apriori character of realities without the aid of Reason. But since Kant rejects intuitive understanding he must rely on the work of Reason to establish the scientific status of a body of knowledge. But, this emphasis on the role of Reason and the rejection of intuitive understanding forecasts in Kant's work in the *CPR* a greater attention to architectonic and a glossing over instances of given intuitive necessity and apriority. As I will show

[18] Plato (1961) also appears enamored by geometrical knowledge as is evident from the role geometry is given in The Republic (VII, 526c8-527c11) and The Meno (80d1-86d2).

below Kant's understanding of time and space especially betray his rejection of intuitive understanding.

Kant continues with examples from natural science. He acknowledges that the natural sciences are not as far along the path of science as geometry but also suggests that a similar revolution in strategy is responsible for the increasing success of natural science. The theme can best be summarized as follows: "reason has insight only into what it itself produces according to its own design".[19] Knowledge is only possible in natural science to the degree that we are able to approach nature with apriori concepts and principles. Kant suggests that the same strategy will revolutionize metaphysics. Inquirers must not blindly respond in experience to reality. No knowledge of reality in general will ever be gained. The only possibility for a science of reality in general as a goal is that we think about reality with apriori necessary elements, elements that are amenable to reason and consistent with the desire for clarity, certainty, and universality. Again, I am sympathetic to Kant's point that experience cannot be made into a systematic unity without the infusion of apriori and necessary elements. But whether those elements can be known independently of intuition is where I think Kant is less effective in showing.

Is Kant's claim about the condition for reason having insight a claim we should accept as true? The issue is difficult because the principle seems to be at the heart of Kant's strategy for understanding experience, it sounds very plausible on a first read, and yet it leads to a constructivism that many have found problematic. But it is only

[19] Kant (1998, Bxiii).

problematic when combined with a rejection of intuitive understanding. I say this because Kant speaks of reason "producing" by its own design. In geometry and physics the producing is an active endeavor in which a person takes constructive steps. Yet in Kant's account of experience the transcendental activity that is posited to account for experience is not under the control of the empirical agent and we are left to trust that all of the synthesis is being carried out, actively, without ever experiencing its activity. As Kant says, "There is no doubt whatever that all our cognition begins with experience."[20] But one of Kant's fundamental claims is that in spite of all cognition beginning with experience we can explore the terrain that makes experience possible. But if we are the producers of the very objects known, that is if all the elements are elements from within us or from the subject, the worry starts to emerge of experience being insulated from reality.

On the other hand it seems to me that the condition should be treated as true and knowable apriori. The principle amounts to the denial of the claim that reason could gain insight into what it has nothing in common with. Analogously, a similar argument is echoed in debates about metaphysical dualism. How could, says the critic, two substances, with nothing in common, have any interaction? Lacking sameness of some minimal sort it is not conceivable that two things can interact at all. Interaction requires a common ground. Similarly, Kant is making the claim that if experience is reasonable, that is, if it has a share in reason, then it must be of a reasonable nature. But why construe the account of experience as a producing or constructing? No one should

[20]Kant (1998, B1).

expect any reason for experience unless a model of the possibility of experience can be produced from elements which reason can work with. Kant again gives the clue:

> Even without requiring such examples for the proof of the reality of pure *a priori* principles in our cognition, one could establish their indispensability for the possibility of experience itself, thus establish it *a priori*. For where would experience itself get its certainty if all rules in accordance with which it proceeds were themselves in turn always empirical, thus contingent?[21]

Here we are reminded that the ultimate goal is to establish a ground for apriori synthetic principles, principles which are pure in the sense of having no admixture from empirical observation and induction, but which are new insights, not mere tautological principles. And here I think I must summarize what I think is driving this constructivist project. Kant holds the following claims to be true:

1. There is experience.
2. There are apriori synthetic propositions.
3. There is no intuitive understanding. By that I mean that there is no grasping of objects themselves, no immediate access to their essential and necessary being.
4. Outside of the bounds of experience there is no proof or justification.
5. Reason only has insight into what it produces by its own design.

I submit that the combination of (3) and (5) create a real worry for Kant. It is, in one sense the worry that Kant attempts to address in the Transcendental Analytic. If there were something like intuitive understanding, an immediate insight into the essential and necessary being of an object of some kind, then it would be possible to know at least

[21] Kant (1998, B5)

some realities in such a way that they could serve as elements of experience. But how can these elements be secured when access to realities is denied by the system itself?[22]

Since according to Kant such access to objects, and by object here we mean anything that attention can be directed at, is denied there must be alternative justification for apriori synthetic propositions. But by accepting (4) Kant limits the possibility of such justification. He is further limited by the fact already stated that depending upon empirical knowledge will never provide the kind of justification necessary for apriori synthetic principles. The link then between the justification of apriori synthetic principles and Kant's investigations into the presuppositions of experience is that he can find no other way of providing a foundation for apriori synthetic principles but through an investigation into the apriori elements of experience itself. But this means treating the faculties of the understanding and sensibility, of the apriori concepts of the understanding, of space and time as realities which can be understood. And this seems like it is barred by the implication of the system that things in themselves, reality, cannot be known.

Furthermore, the fact that intellectual intuition has been blocked by (3) above means the only way to understand experience thought of as cognition of objects is not through an essential and necessary grasping of them, but through a gathering of the

[22] Allison (2004, 98) attempts to avoid this implication by construing Kant's system not as an alternative ontology but as an alternative to ontology. He says, "space and time are understood in terms of their epistemic functions…rather than as 'realities' of one sort or another." To my mind this suggestion is less helpful than Allison makes it seem. First, the way Kant speaks of time and space is more in line with their being realities. Second, Allison's suggestion seems to place Kant in with a kind of epistemological instrumentalism. But this will be discussed further below in sections specifically on time and space.

sensible intuition and an organizing of that manifold with apriori necessary elements. But there is a worry here in Kant's project, and it is one that I have not been able to satisfy myself in answering. If all objects of experience are constructed by apriori simple elements, themselves lacking parts, like the categories or the forms of intuition, then how are these fundamental principles grasped? Isn't our knowledge, understanding, or insight into the nature of such elements a kind of contact with those elements, a contact with an *other* that we are in some way familiar with? But surely these elements cannot be constructed themselves otherwise a regress approaches. And to say, as Kant does that some limits are unavoidable, that the getting beyond some presuppositions is impossible leaves the account in no better position than if the elements were grasped through an intuitive understanding, a kind of experience that allows us to access those objects in their real nature.

I leave this question behind, and after one more preliminary extract from Kant's *Critique* what I take to be the central apriori elements of experience. This is done, as has been noted with a view toward the elements that Peirce himself, through his devotion to Kant, advances, criticizes, or develops in his own account of experience. The above has been my attempt to come to grips with what I think is problematic in Kant's account. But it does not bring the entire structure down. I think that at times Kant does depend on what I have been calling intellectual intuition. In that sense I think his system closer to the truth than may appear from the above criticisms. So part of my goal is to develop what seem good insights while also looking for how to rehabilitate what to my mind won't do.

The second principle that establishes the form of Kant's model of the possibility of experience is the following:

> All that seems necessary for an introduction or preliminary is that there are two stems of human cognition, which may perhaps arise from a common but to us unknown root, namely sensibility and understanding, through the first of which objects are given to us, but through the second of which they are thought.[23]

Since this claim is a part of the basic foundation of Kant's model it requires some explanation. Is the claim controversial? Is it possible to challenge? Should it be readily accepted, and if so, why? The principle is certainly controversial historically and it is possible that Kant viewed the truth of the principle in terms of the success of the later work in the Transcendental Aesthetic and the Transcendental Analytic.[24] If that is the case then the principle may stand as a summary of what Kant later argues makes experience possible. One way of motivating the principle is to show the troubling consequences of the alternatives.

The first alternative is that knowledge of objects, here experience, is attainable without any real use of the understanding. In other words the understanding may play an organizational role of various complexity but contributes nothing of its own to experience at all. This view was held by David Hume.[25] Hume argues the following:

> But though our thought seems to possess this unbounded liberty, we shall find, upon nearer examination, that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no

[23] Kant (1998, B29).
[24] This is the approach that Allison takes in his (2004, 12). In an endnote he says he has changed his view and no longer views the discursivity thesis as a brute fact for Kant. Instead Allison construes Kant as at least providing the materials for an argument for the discursivity thesis.
[25] Hume (1977, 11).

> more than the faculty of compounding, tansposing, augmenting, or diminishing the materials afforded us by the senses and experience.

The consequence of Hume's analysis of the possibility of experience is that experience of objects is impossible. Because of Hume's strict empiricism he can give no account of objects except as clusters of ideas taken from impression. Familiarity with objects, for Kant, would imply the ability to think objects as the ground of impressions received through the senses. And Hume has no resources for such thinking. If Kant is right, then Hume's failure to show that experience is possible is a failure of his rigid empiricism. If a truly blank slate is assumed, then no concept of an object can ever be thought necessarily, and to the degree that an object cannot be thought as the ground of appearances no relation to objects and so no experience of objects will be possible.

The second alternative to Kant's account is a purely rationalistic project wherein familiarity with objects is a direct product of rational principles without any given sensory component. The problem with this account is that the concepts stored in the understanding, innate or otherwise, would at best accidentally match the *other* which is encountered through sensation, or they would receive guarantee from a divine being who establishes the harmony between our understanding and the world. The account begs for such a pre-ordained harmony between the concepts stored in the understanding that might be given the name concepts of objects, and the nature of objects themselves of which our familiarity is supposed to be about.

I will only suggest in addition at this point that this basic principle of Kant's, the discursivity principle, is partly formed by his prior rejection of any kind of intellectual intuition or what I am calling intuitive understanding. But Kant does not entertain the

idea that the understanding might also be passive or receptive. It will be part of my analysis to show why ignoring a receptive aspect to the understanding leads to problems for Kant's conception of experience. This conception of the understanding was more prevalent in Medieval philosophy. I do not have an answer as to why Kant defines the understanding as spontaneous only and the sensibility as receptive only. But it is not a principle he argues for. It is simply assumed at the beginning of the work.

Kant's account of the apriori elements of experience attempts to strike a position in which experience is in principle possible. And it is to that account that I now turn. Kant's account is shockingly simple when viewed from the completion of the account. Experience is grounded in sensibility and understanding. Arguments are made to show what are the apriori elements of both sensibility and understanding. Then, a third mediating element is introduced to provide a relation which makes possible the combination of the apriori elements of sensibility and the understanding. From Longuenesse's research there is a symmetry between the A Deduction which involves transcendental synthesis of apprehension in intuition, synthesis of reproduction in imagination, and synthesis of recognition in concepts and the later B Deduction which introduces later the synthesis of the imagination in order to mediate the synthesis of the intuition in appearance and the application of the categories by the understanding. She highlights what has become for me a central claim by Kant that satisfies his demand that Reason only have insight into what it produces by its own design; "all combination,

whether we are conscious of it or not…is an action of the understanding."[26] And again said in a different way:

> The same function that gives unity to the different representations in a judgment also gives unity to the mere synthesis of different representations in an intuition, which, expressed generally, is called the pure concept of the understanding.

The implication is that the understanding, through its effort to judge, affects the synthesis of the manifold with the same functions at every level of synthesis. Only in this way, according to Kant, can the construction that takes place be shaped by the common apriori elements that are akin to Reason.

We may begin from a basic account of a unit of experience. Kant calls this an empirical cognition.[27] A cognition is called by Kant an objective perception. A perception of objects that is empirical is a determination of those objects through sensation, or via what is given though sensibility. This kind of determination takes place through judgment. Judgment, says Kant, is a "mediate cognition of an object, hence the representation of a representation of it."[28] In other words one must first have a representation of an object and then determine that object represented by subsuming it under another representation. This experience then is conceived by Kant as the result of an act by the agent. What must be possible is for a representation to be conceived as the appearance of an object such that the subsumption of the representation under another can be conceived of as the subsuming, indirectly, of the object under the new

[26] Kant (1998, B130).
[27] Kant (1998, B1-B2).
[28] Kant (1998, B93).

representation. So, what is clear is that experience for Kant is constituted by a constructive active effort, and prior to empirical judgment or thinking there is an activity of judging that must occur. And this conception of an object that is thought, must not be merely a product of experience, in fact that is barred at the outset. If there is no *a priori* concept of an object that is available for thinking the ground of the appearances that we are confronted with via sensibility, then experience is impossible. Furthermore, because experience is representation of a representation of objects, then the conception of objects that is employed by the thinker to provide a ground for the appearances encountered through sensibility will also be an element of experience itself, and necessarily so. So, one source of the apriori elements of experience is the understanding, conceived of as the source of thinking which takes place through concepts. Kant calls the original ways that objects are thought for appearances categories. It is to his account of how those categories are individuated and justified as being objective that we will turn to momentarily.

The second source of the apriori elements of experience is sensibility. Objects must appear before us and do so through our sensitive faculty. So, if there are any ways that objects appear which are necessary apriori, those ways will be elements of experience also, since they are elements of one of the sources of experience. Kant's argument for the different apriori elements of sensibility strikes me as insecure. But, his claim that there are such apriori elements seems to me to be worth consideration. I will argue below that even if the elements Kant describes cannot be certainly derived what

can be shown is that there is a method, beyond derivation, that enables us to discover something about experience apriori.

Last, as will emerge after the analysis of both the apriori elements of understanding and sensibility, categories cannot be applied to appearances unless a third element is introduced. The necessity of this third element, the schematism of the understanding, is a product of the impossibility of conceiving of experience as possible without such third elements. Here again Kant seems more certain that a third and distinct apriori element is necessary then he does about the nature of such elements. But the lack of completeness or clarity in his exposition should not distract us from the powerful model of apriori elements that is the trajectory of his analysis.

1.2 Forms of Intuition: Apriori Elements of Sensibility

The first apriori elements that Kant introduces in his account of the possibility of experience are space and time. Kant titles these apriori elements of experience forms of intuition. In order to isolate what he is interested in analyzing Kant offers the following helpful example:

> So if I separate from the representation of a body that which the understanding thinks about it such as substance, force, divisibility, etc., as well as that which belongs to sensation such as impenetrability, hardness, color, etc., something from this empirical intuition is still left for me, namely extension and form. These belong to the pure intuition which occurs *a priori*, even without an actual object of the senses or sensation as a mere form of sensibility in the mind.[29]

The example is of an empirical intuition: an immediate relation to an object through sensation. Any representation of an individual will do. The intuition is the representation

[29] Kant (1998, A20-21/B35).

of an object in appearance. Kant is inviting us to reflect on what is involved in the act of attending to any appearance as appearance prior to empirical determination in judgment. In this act of attention Kant separates three elements: there are the apriori concepts of the understanding which when separated from the appearance leaves a representation which cannot be thought of as referring to an object. If the sensory matter is further removed from the representation, there is still something left. Kant claims this remaining element is something necessarily apriori and so an apriori element of the possibility of experience. How it is formed, or the ground of the form, Kant will argue later are the categories of the understanding. But the formability, we might call it, of the sensory manifold is what the forms of intuition are meant to be determinative of.

So, space and time are here conceived as mediating representations between ourselves and intuitions. Intuition itself is supposed to be a representation in immediate relation to objects. But I cannot see how the self is put in immediate relation with objects through intuition when there are forms of intuition that in some sense stands between ourselves and the objects intuited. Whatever is of intuition should be of the object intuited. The very idea of a form of intuition seems problematic to me.

The point here is that Kant claims that we are given representations of objects through sensation, and that these representations put us in immediate relation with the objects that we are sensing. If there were a form of intuition it would necessarily need to be a form of the object intuited. But space and time are not conceived of as forms of things intuited. Kant conceives of space and time as forms that are internal to the sensing subject. They are forms that the sensing subject contributes to the interaction.

But, if space and time are ours and not of objects, then I fail to see how once intuition has been formed by space and time that it is any longer intuition. Removing the space and time from the intuition would leave the sensing subject without anything except the amorphous sensory manifold. But if this is supposed to be the intuitive relation to objects, then it is hardly an individual representation. I think it best then to conceive Kant's metaphysics of experience as lacking any real intuitive relation to objects. It is constructivism all the way down.

On the other hand Kant does seem to have intuitive knowledge of space and time. But it is not mere sensible interaction with space and time. Kant, in his account of space and time delves into their reality. He seems to approach space and time as realities which we have necessary knowledge of. In this sense I think it best to conceive of Kant's account of space and time as an intuitive understanding. That is what I want to bring out below.

The argument that Kant offers for the forms of intuition, space and time, is one that appeals to a ground in appearances themselves. He simply asks his reader to consider appearance itself. In this sense appearance is treated as a reality which itself may inform us of the nature of experience. Appearance, Kant says, is "the undetermined object of an empirical intuition". If experience is the result of such judgment which leads to determination, the application of concepts gained through experience with objects, then whatever form is necessary for appearance will remain a part of the structure of experience itself. This is inescapable. Given that experience is gained from determination of what appears it is never relieved of the form that appearance itself

takes. So, if there is appearance, and this cannot be doubted, and appearance itself has certain characteristics, then those characteristics will be a part of experience itself.

What stands out if we reflect on the nature of appearance itself? Kant notes two facts about the way objects appear to us: namely, alteration and motion, and the idea of externality. That things appear external is undeniable. But what does it matter? Well, that undeniable form that appearances take is made possible by a form of our intuition of objects themselves: space. Kant argues that the reason we should treat space as an apriori intuition is the following: geometry is a science of space that is generative of new but apriori necessary knowledge of space. Given that the knowledge is knowledge of outer intuition and also that it is knowledge, that is necessary, it must be that the form of space is ours apriori, since without space as a mode of representation prior to experience there would be no representation of space for geometry to generate knowledge of.

Now, since the time of Kant non-Euclidean geometries, and worries about the fifth parallel postulate of Euclid's system of geometry have cast doubt on Kant's use of Euclidean geometry as evidence of the form of intuition. Indeed Kant relies on the status of geometry as a science for his evidence that synthetic apriori knowledge is possible. So, it seems that either Kant, and we along with him, must relinquish the notion that space is an apriori form of intuition, or it must be determined to be such independently of any foundation of Euclidean geometry. Allison takes this view in his exposition of the Transcendental Aesthetic claiming that the Metaphysical Deduction suffices for the

ideality of space independently of the Transcendental Deduction that relies on geometry.[30]

Kant's claim is the following: for there to be any apriori synthetic knowledge of geometrical figures, whatever figures that knowledge is conceived to be of, it is only possible if there is a form of intuition that is apriori also for those figures to be constructed in. There is a rich discussion in Kantian scholarship on the nature of the transcendental exposition and to what degree the status of Euclidan geometry affects Kant's exposition. Here I will not enter that discussion but seek an understanding of the apriori and formal intuitive nature of space independent of the Transcendental Exposition's emphasis on its relation to geometry.[31]

In the Metaphysical Exposition Kant provides four brief arguments for the apriori intuitive nature of space. That space is not an empirical concept is justified by the fact that in order for me to be confronted with something outside myself space must logically precede that representation. This does not answer the question of how we become familiar with space except to deny that it is *a posteriori* or through experience. That it is a necessary representation is justified by the fact that "one can never represent that there is no space".[32] I find this claim fascinating. How does one prove that this is impossible? That space is an intuition and not a concept is justified by the fact that space is essentially single and secondly that space is an infinite given magnitude. These claims are justified again by a brief bit of reasoning about the

[30] Allison (2004, 116-122).
[31] For further discussion see Friedman (1992), Falkenstein (1995), Parson (1992), and helpful discussion in the first volume of Paton (1936).
[32] Kant (1998, B38).

impossibility of understanding space in any other way. Kant goes on to say that this knowledge of space is derived from intuition, derived *a priori*, and with apodictic certainty.[33]

What are we to make of these supposed essential and necessary characteristics of space, the claim that Kant makes about how they are derived, and his other claims about the limitations of cognitive faculties? Kant is discussing a form of intuition and arguing that what we know about the form of intuition is known intuitively. There is something circular in using intuition to prove something about a form of intuition. But whether there is a problem here or just a knot that cannot be easily untied I cannot resolve here. What stands out to me as problematic though is the way that Kant presents his arguments for space and its consistency with one of his fundamental principles: that sensibility is merely receptive. Can Kant consistently claim that the necessary and essential attributes of space can be derived from a purely passive sensible faculty?

When Kant presents his arguments for space he presents it as a reflection on the representation of space which he has presumably before his attention. That representation is said to be an intuition, meaning a representation that is in immediate relation to its object. But what is the object? Is the object space itself, and what kind of reality does that object have? Kant does not say. He merely says that it is an intuition.

The reflection takes the form of attempted operations on the representation of space. There is no way around speaking of this as a kind of perceptive activity. In order

[33] Kant (1998, B39/A25)

to discover that space is single one has to attempt to construct it from component parts and notice that those parts are already inhabiting something, namely space. That space is necessary is discovered by the operation of attempting to represent that there is no space and presumably failing. And in each case the activity according to Kant, these attempted experiments with the intuition, are said to result in a kind of final, irrefutable, necessary, and certain knowledge of space.

This kind of epistemic relation to space would not be possible through a purely passive sensory encounter. Sensory intuition is according to Kant simply a manifold and *communicates* nothing on its own outside of the organization by the understanding. But here we have something that looks like an intuitive understanding. That is, there is an immediate relation to an object the interaction with which is final and irrefutable, or not open to falsification. I can make no sense of such an interaction except as an intuitive understanding. What is present to the mind is immediately present, and understood without the discursive use of the understanding.

Such a conclusion would not be problematic except that Kant has already set out his commitments to the understanding being purely discursive, only operating through concepts. And if one claims that in this case too the epistemic relation to space is one that is through concepts one will have to acknowledge that the relation is now mediated and that we are only in contact with the phenomena of space and not the thing in itself, the reality itself.

Time, Kant says, grounds the idea of alteration which is the idea of "a combination of contradictorily opposed predicates…in one and the same object."[34] Again, from Kant's perspective we simply must take seriously what we mean by experience. If change is possible at all, if it is to be possible to conceive of an object being one way and then not being that way reason alone will never justify such an idea. It must be grounded in the idea of succession of different states of the same object. This idea is the idea of time. In multiple ways the idea of time is presupposed in our conception of experience.

The very idea of a change of condition of a person from ignorant to experienced presupposes different opposing states of the same individual. The idea of increasing familiarity with an object, so obvious in our conception of experience, depends on successive interactions with the object. The very idea of something appearing is the idea of it coming into view through successive states. If there is no succession of states then in principle our conception of experience falls apart. The conclusion of such reasoning is that time cannot be a product of experience. For, no experience is possible unless time is an apriori condition of experience.

In the Metaphysical Exposition Kant makes similar claims about time that he makes in regard to space. He claims that it is necessary since one cannot remove it from appearances; that it must be apriori else the principles derived from it would not be necessary; that time is a single object, and that it is infinite are cited as evidence of its nondiscursive and intuitive nature. What again is the proof that time cannot be

[34] Kant (1998, B48).

removed from appearances or that different times are successive and not simultaneous. These proofs depend on a kind of perceptive, operational, testing of a reality that is not subject to falsification according to Kant.

Time and space then are not products of experience, but subjective conditions of the possibility of experience of objects according to Kant. But that they are subjective conditions of experience, at least in some cases, does not change the fact that they have enough *distance* from us to be perceived, reflected upon, and even interacted with. Are they not then in some sense real? Does our interaction with them show there to be a broader understanding of experience that is at work in Kant's metaphysics of experience but which remains unaccounted for? I think the answer to both questions if affirmative. Kant shows us to have access to certain realities, which is not purely sensory in nature, and which according to Kant is not open to falsification. I use the term intuitive understanding to describe the capacity in us for such an interaction with objects that results in necessary essential knowledge of those objects encountered. That we do not have the same access to other objects such as empirical reality is no evidence against our having such an encounter with other realities such as space and time.

That space and time are called by Kant subjective has caused serious worry on the part of those who see Kant as radically departing from our ordinary thinking about space and time. The worry may be expressed in the following form: all of our ways of representing the other, in space and time, may be radically mistaken, or misconceived. Since space and time are subjective, and so don't apply to things in themselves, we are stuck behind a veil of our own subjective forms of intuition. Kant does not think the

implications of his view nearly so radical. He does acknowledge both that the conditions are subjective and also that they are apriori elements of experience. But what we can now say is that space and time themselves are not subject to the worry that applies to the realities that Kant thinks space and time inform.

The Kantian response to such an accusation is to explain the necessity of such apriori conditions for the possibility of experience thereby transforming them from conditions that might prevent interaction with objects to conditions of such an interaction. Kant again understands experience to be the determination of objects through sensation. Entailed in the idea of determining objects is that those objects make an appearance. And a condition for their making an appearance is that we be equipped with elements by which the sensory data we take in is orderable. Any experiencer we might say, in order for objects to appear to it, and so for experience to be possible at all, must have the capacity to receive sensory information about objects in the first place. And even if, as Kant will argue, the understanding is responsible ultimately for the order that the sensory manifold is put in, that implies that the manifold is orderable. And if it is orderable it is only because there is material there to order. This material is not a chaos. Kant's initial argument about the apriori elements of sensibility is an attempt to say just what those non-chaotic ways are that sensory data becomes material for ordering. But again, these claims about experience we can now see from the analysis of Kant's arguments about the necessary and essential characteristics of space and time only apply to certain kinds of confrontations with objects.

From this perspective subjective conditions are just the primitive conditions that we have for representing, through sensation, objects, or the condition of there being appearances. Kant calls them forms of intuition because intuition is an immediate representation. They are ways objects are displayed, given, to us, internally or externally, simultaneously or successively. And if we decline to agree with Kant that these elements are necessary in the most rigid and universal sense he will agree. They are subjective conditions. But that experience could be possible with no subjective conditions is impossible. So, we are left with the necessity of there being subjective conditions while having to accept that these conditions are not necessarily universal to all beings.

Kant's method for deriving the apriori elements of experience is almost an early phenomenological method if phenomenology includes the practice of reflecting, a kind of perception, on appearance itself as a reality. Kant's presentation of the apriori forms of intuition reflects an attempt to say in the broadest terms the way in which objects are intuited. As he models in his example of an empirical intuition of a body it must be possible to distinguish the element of thinking original to the understanding, and also to distinguish in what is left the matter from the form of the appearance. It is the figurative formability or oderability that is addressed by the apriori forms of intuition. But if Kant reflects here on appearance in general it is my contention that his reflection represents a capacity for experience that he does not acknowledge. For instance one avoids typical empirical concerns about error when reflecting on the nature of appearance given that whatever appears is *ipso facto* the way it is. Even an illusion or a hallucination will do

just as well as the appearance of an object. Now, that certainly doesn't mean that one cannot infer wrongly about the conclusions that are derivable from such phenomenological reflection. But it does show that certain interactions with reality broadly construed are immune from the kinds of worries that other interactions with reality are susceptible to. From this reflection certain conclusions begin to emerge.

When Kant discusses experience he calls it cognition of objects. But we now can say that he only has certain objects in mind. For he has just shown us a cognition of objects that is not susceptible to the conditions placed on his account of cognition of objects. One way of addressing this issue is to say that Kant's account of experience is an account of only certain kinds of reality. But, if that is the case, then it is still worth reflecting on another kind of interaction with reality that is exemplified in the Transcendental Aesthetic. Given that space and time are never conceived of as innate, and given that Kant's reflection on them represent a kind of interaction presuming a kind of distance between ourselves and these forms of intuiton, a broader conception of experience begins to emerge. This experience is exempt from worries about the kind of experience that Kant was presumably interested in examining and results in a knowledge of its objects which is traditionally, but given our analysis only problematically, *a priori*. Whether *a priori* experience works or not as a phrase is a merely terminological question. The experience results in knowledge of the essential and necessary characteristics of the reality described. A second important implication is that the differences in access to objects, say between ordinary empirical objects and objects like space and time, may lead us to believe that these different objects may have

different levels of accessibility. That is space and time are such that, according to Kant, we have a different access to than we do to stones and molecules.[35]

1.3 Categories: Apriori Concepts of the Understanding

Kant's investigation into the apriori elements of the understanding is more systematic than his investigation into the apriori elements of sensibility. Perhaps it is because Kant is able to derive the categories themselves from an original principle grounded in the very function of the understanding. Kant says, in opposition to sensibility, which is a passive or receptive faculty, that understanding is an active faculty. But as has already been noted, this fundamental spontaneity of the understanding is not argued for in the *CPR.* Kant claims the function of the understanding is unity.[36] The understanding brings about unity in the manifold of sensory data and also provides concepts for judgment.[37] According to Kant concepts are grounded on functions.[38] Understanding this latter point is critical for understanding the grounding that the table of judgments provides for the discovery of the table of categories.

A function is said by Kant to be "the unity of the action of ordering different representations under a common one."[39] Judgment is then, the paradigm function of the understanding because it is thru judgment that unity of the manifold of sense is

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[35] The full ramifications of such a suggestion cannot be pursued here. But it provides a hint of a challenge to the Cartesian claim that the essence of reality is simply extension. For if some realities are more intelligible than others this may be because their essential natures are also different.

[36] Kant (1998, A67/B92).

[37] Kant (1998, A69/B94).

[38] Kant (1998, A68/B93).

[39] Kant (1998, A68/B93).

brought about. Kant gives the following as a description of judgment that is consistent with his description of a function:

> Judgment is therefore the mediate cognition of an object, hence the representation of a representation of it. In every judgment there is a concept that holds of many, and that among this many also comprehends a given representation, which is then related immediately to the object.[40]

Every judgment is directed at an object mediately by being a determination of an empirical intuition described earlier as an immediate relation to an object through sensation. The empirical intuition is brought into unity with other empirical intuitions by the subsuming of it under a common mark represented by the concept applied in the predicate of the judgment.

The idea that Kant is working with here is that the apriori elements of the understanding, or as he calls them categories, are discoverable by looking to the basic unifying activities of the understanding itself. These are knowable because we know the function of the understanding: unity thru judgment. So, by examining the activities of the understanding that make the unity of judgment possible, and since these activities are the grounds of concepts, the basic concepts of the understanding can be discovered. The next step that Kant takes is to show that these *apriori* concepts of the understanding are also the categories.

It is interesting that Kant claims the table of judgments is a clue to the discovery of the categories. In his correspondence and dispute with Eberhard after writing the *CPR* Kant asserts that the categories as well as the forms of intuition are, as opposed to being innate or empirical, originally acquired. Longunesse discusses this account of the

[40] Kant (1998, A68/B93).

acquisition of the categories in her emphasis on the role of judgment in Kant's work. She quotes Kant as saying:

> Thus the formal intuition which is called space emerges as an originally acquired representation…The acquisition of these concepts in an *acquisition derivativa*, as it already presupposes universal transcendental concepts of the understanding. These likewise are acquired and not innate, but their acquisition, like that of space, is *originaria* and presupposes nothing innate except the subjective conditions of the spontaneity of thought.[41]

This passage expresses Kant's attempt to show a middle ground between the theory of innate ideas and an empirical derivation of the apriori concepts of the understanding. But passages such as this are difficult because the acquisition does not appear to be a conscious choice, but an acquiring which is analogical or points to the activity of a being in principle barred from our experience, the transcendental subject. As will be discussed below, and I owe this interpretation to Longuenesse who deals with it repeatedly in her work, the effort to think, otherwise for Kant the effort to judge, is what stimulates the acquisition of the categories and derivatively the forms of intuition.

One question that might be asked is whether this original acquisition can be accounted for strictly with the use of an active understanding. For if we carry the analogy of grasping far enough we must conceive of a being knowing in some sense what is being grasped, and grasping this as opposed to that.

The apriori status of these concepts is secured by the fact that they are necessary for there to be any judgment at all. If there is no judgment, then there is no experience, conceived of as Kant does as cognition of objects. Judgment is indeed at the

[41] Longuenesse (1998, 252). But here she is quoting Kant from *Entdeckung*, Ak. VIII, 222-223; 136.

foundation in the sense that it is this effort embodied in the understanding that calls forth the need for concepts. Our familiarity is represented by the determination of the object of judgment through the senses. And since the capacity to judge must be prior to any empirical judgment itself, then the activities which make judgment in general possible, and ground the concepts of the understanding, are also not empirical but apriori. Another way of putting the point is to say that what we know about judgment is not knowable through experience. It is what both every piece of experience eventually gained, and the systematic unity of total experience, presuppose.

Kant continues with his account of judgment:

> All judgments are accordingly functions of unity among our representations, since instead of an immediate representation a higher one, which comprehends this and other representations under itself, is used for the cognition of the object, and many possible cognitions are thereby drawn into one.[42]
>
> …then the power of judgment is the faculty of subsuming under rules, i.e, of determining whether something stands under a given rule, (*casus datae legis*) or not.[43]

In the first quote the essentiality of an object is emphasized. Judgment always involves the determination of an object through the act of bringing a concept of an object, called the subject concept, under a concept, called the predicate concept, which contains that subject concept itself. In the second quote this action is called subsumption. The table of judgments represents Kant's attempt to display the actions of the understanding which make possible the full determination of an object. The categories are simply the unities

[42] Kant (1998, A68/B93-A69/B94).
[43] Kant (1998, B171/A132).

of each of these actions. The constructivist nature of Kant's account of experience becomes even more visible here. Cognition of objects cannot happen without judgment.

I noted both in the introduction and the first chapter on intuition that this constructivist character of Kant's account of experience has been a sticking point for me. There is something about experience that is raw, a receptive event: this is captured partially at least in the account Kant gives of sensibility and sensible intuition. But that there is no experience without the active building up of an object for experience from concepts derived from my own effort to judge begins to rob something from the idea of experience. For it begins to seem as if the target of my experience, the object, is also a matter of my own construction. What would satisfy my own failure to understand how this amounts to experience is that there is some assurance that the effort to judge is in some way guaranteed to provide me with constructions of objects that can be thought for appearances that are themselves verifiable. But because we begin with the effort to judge as a predisposition is it enough for us to understand that this predisposition is the ground of experience? Kant must show that the concepts of the understanding are also the *a priori* categories of reality. Only then can the understandings active construction of objects be deemed a correlate to reality itself.

If we locate the unifying activities of the understanding, then we will also locate the apriori concepts of the understanding. Many questions about the completeness and sufficiency of Kant's account of the functions of judgment can be raised.[44] But if there is

[44] Strawson (1966) stands out as a relatively recent critic who has questioned the completeness of the table of judgments. Peirce, who we will encounter in chapters two

a unifying activity which must necessarily be completed by the understanding to affect judgment, then that function grounds an apriori concept. Peirce's categories, discussed in chapter three of this work, look very similar to Kant's titles of quantity, quality, and relation. The question of the primitive nature of the apriori concepts Kant claims to discover should be separated from the question of whether they are apriori necessary. Given that Kant himself acknowledges that there are "equally pure derivative concepts" an argument to the effect that Kant's categories are not primitive in no way jeopardizes their apriori and necessary status: it merely challenges their primitive status.

The famous table displaying the logical functions of the understanding toward the completion of the form of a judgment identifies four unifying activities of the understanding and within each three functions that make possible the unifying function under which they are titled. The important question here is whether the action of the understanding described is necessary for the form of a judgment to emerge. If it is, then the concept grounded on that function is a necessary *a priori* concept of the understanding. Kant names the four unifying activities of the understanding the quantity, quality, relation, and modality of judgment.

No fully formed judgment can emerge without the task being completed which determines the quantity of the subject concept that the predicate concept is applied to. Allison calls this the task of "defining the extension" of the application of the predicate.[45] The content of the subject concept that represents the object determined

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through four, gives a derivation of the categories from an account of judgment which is Kantian in strategy but results in a different list.

[45] Allison (2004, 138).

in judgment is provided by sensibility and given, but that content must be determined to be universal, particular, or singular. Without such an activity of determination the judgment itself would be incomplete.

The second necessary task of the understanding which contributes toward the unity of judgment is the determination of the nature of the application of the predicate to the quantified subject. Kant defines three sub-functions or moments of this task: affirmative, negative, and infinite. The distinction between affirmation and negation is well-known in logic. These are clearly different acts. To affirm a predicate of a subject is to place that subject within the domain of the predicate. To negate a predicate of a subject is to deny that the predicate applies which leaves the subject undetermined. But Kant goes further to construct a division within what in logic would be termed affirmation.

He calls affirmation the sub-function that results in a defined sphere. So, when it is judged that "All cats are mammals" the content is affirmed of the subject in a way that provides positive content for the subject. How different this is from the affirmation that "All cats are non-fish" which Kant separates from the sub-function of affirmation and titles infinite. Here the determination of the subject is such that the subject is placed within a sphere that is only defined by what it is not.[46] And this is clearly different from the negation "Cats are not fish" which excludes the subject from the sphere of the predicate and makes no affirmation at all. In the latter negation the subject is placed in no sphere.

[46] Kant (1998, B97/A72).

The distinctions between the sub-functions of the quality of judgments begins to emerge: one may place the subject within a contentful sphere (affirmation), one may place the subject within a sphere which is not defined but united by what it is not (infinite), or one may deny the subject a place within a sphere (negation). The names of these tasks and their association with names in general or contemporary logic could cause confusion. One should be careful to impart to each task only that which is found in Kant's analysis and not assume that there is similarity to contemporary logical functions. But the names are insignificant. What is important is each act and its formal irreducibility to any other act within the function described. That what Kant calls the function of infinity, placing the subject within an infinite sphere defined only by what it is not, is distinct and irreducible to affirmation, placing the subject within a sphere with positive content thereby providing positive determination of the subject, is clear. The distinction is a formal one and must be presupposed in order to account for the differences in the quality of judgments.

Next, Kant describes the function of relation in judgment. This is not the relation between parts of the judgment itself as much as the relation of the assertion judged to the condition of that assertion. For a determination to be non-arbitrary it must be based on a condition. The titles of the moments given, categorical, hypothetical, and disjunctive, put us in mind of a particular form of proposition in modern logic. But it is best not to allow such affinities between Kant's terms and modern logical terminology to develop too quickly. Better to ascertain Kant's meaning independent of any aid from modern logic. Here as in the other titles of the functions of thinking in judgment the

relations of thinking in a judgment are divided so as to provide a complete and exhaustive list of the primary ways relations between representations can exist. But again, here the relation function is meant to represent the condition upon which any determination of an object takes place.

Kant provides the following as an explanation of the difference between the three moments of the title relation. He lists the relations in the following order: categorical, hypothetical, and disjunctive:

> The relations of thinking in judgments are those *a)* of the predicate to the subject, *b)* of the ground to the consequence, and *c)* between the cognition that is to be divided and all of the members of the division.[47]

Thus, the categorical function provides determination of the object represented by the subject concept based solely on a condition internal to the subject concept itself. The subject predicate relation is one where two concepts are united and the condition for the hierarchical unification is the subject itself, namely that it actually has the mark which the predicate concept asserts of it. "All dogs are mammals" is true on a condition which is the nature of the object contained under the subject concept and nothing else.

The hypothetical function is essentially different from the categorical function because the determination of an object is not conditioned on the subject concept of that object itself but on an external condition represented as the antecedent or ground. The determination here is conditioned in a different way from the subject-predicate relation. "If there is perfect justice, then obstinate evil will be punished" is Kant's

[47] Kant (1998, B98/A73).

example of the hypothetical function.[48] Here the determination of obstinate evil as punishable is made based on a condition external to the subject obstinate evil itself. The condition is the existence of perfect justice in the universe. So, what makes the determination of the object legitimate is a relation of dependency between ground and consequent.

Last, the determination of an object is legitimate when the determination is a complete and mutually exclusive division of the subject concept that represents the object. Kant's example is as follows: "The world exists either through blind chance, or through inner necessity, or through an external cause."[49] Here the object is the modal existence of the world and the determination of the existence of the world is now a matter of the relation between the divided concept "modal existence of the world" and its division. That is the condition of the determination. This is another distinct and essentially different form of thought from either the categorical or hypothetical.

To summarize: an object is either determined based on its subject concepts being within the sphere of another concept, or determined based on an external condition distinct but which asserts a dependency relation between to judgments that is the ground of the determination, or determined through the mutually exclusive and complete division of the subject concept. In the last case the determination is grounded in the relation between the subject concept and its division. That is the justification for the determination made of the object represented by the subject concept.

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[48] Kant (1998, B98/A73).
[49] Kant (1998, B99/A74).

Kant separates the above three titles of the functions of judgment from the final function modality. The first three, quantity, quality, and relation are determinative of the content of judgment or are functions internal to the judgment itself while modality is a function which is not determinative of the content of a judgment but "concerns the value of the copula in relation to thinking in general."[50] This title Kant says represents "so many moments of thinking in general."[51] The function here determines the level of commitment to the truth of the determination. Since the function is not determinative of the content of the judgment the same assertion of judgment may be represented in each of the different moments of modality.

A determination is asserted either problematically, assertorically, or apodictically. In the first case an assertion represented in a judgment is merely determined as possibly true. In the hypothetical judgment "If all dogs are mammals, then Spot is a mammal" the judgment "All dogs are mammals" is not taken here as necessarily true or even asserted as in fact true. It is merely stated as a possibly true determination which grounds another determination. The same judgment if placed in the position of being a minor premise in a syllogism where the above hypothetical serves as the major premise is asserted as being factually true. But when it is asserted in the minor premise there is no claim that the premise "All dogs are mammals" is necessarily true. It is simply asserted as true. Last, when the statement "All dogs are mammals" follows necessarily from some other judgments so that it is inseparably

[50] Kant (1998, A74/B100).
[51] Kant (1998, B101/A76).

connected to those other premises, like in a conclusion of a valid argument the statement judgment's truth is represented as necessary.

This function of modality serves as a meta-function for judgment classifying for each and every judgment the commitment to the determination of the object made in that judgment. Its status as a function of judgment is certainly unique but it seems to deserve its place because it represents an activity of the understanding which is essential to the act of judgment itself. Since every judgment must be determined to be asserted as possible, factual, or necessary, that function is necessary in judgment.

This review of the table of functions establishes what Kant calls the clue to the nature of the categories which are distinct from the apriori forms of intuition. Kant claims that the table of functions provides insight into the basic apriori concepts of the understanding. But what exactly is the clue? The link between the functions of judgment and the categories is provided in the following statement from Kant:

> The same function that gives unity to the different representations **in a judgment** also gives unity to the mere synthesis of different representations **in an intuition**, which, expressed generally, is called the pure concept of understanding. The same understanding, therefore, and indeed by means of the very same actions through which it brings the logical form of a judgment into concepts by means of the analytical unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general, on account of which they are called pure concepts of the understanding that pertain to objects *apriori*; this can never be accomplished by general logic.[52]

The inference here from function of judgment to *a priori* concept is as profound as it is simple. Kant's claim is that experience is only gained through judgment, the mediate representation of an object. The point that Kant wants to make here is that the content

[52] Kant (1998, A79/B105).

that is presented for judgment must be of suitable organization or form to be judgeable according to the functions of judgment. And it is not sufficient to say that it must have form. Objects must be judgeable, and so of the sort that our forms of judgment may apply to them. Each category then represents a way appearances are determined so that it is possible for them to constitute objects of experience. The categories are individuated by the way they make possible a form of judgment.

To say then that they are a part of the apriori structure of experience is to say that they represent the possible forms of determination that experience of an object may take. The claim that these are not the proper *a priori* concepts should be treated with more attention than the claim that there are no such *a priori* concepts. That it is possible to judge is a given data point. But that judgment could be completed without an object present for which judgment could attend to is nonsense. And that the faculty for judgment could attend to the object without its having an affinity or similarity which makes possible its coming together in judgment is also nonsense. To claim then that there are apriori concepts of the understanding is to claim only that there are unities of activity of the judging faculty. That there are objects for which judgment, as an effort, may exert itself upon requires the further proof that the *a priori* concepts are also categories of reality. Judgment could not be objective unless these *a priori* concepts enabled us to think objects for judgment in the Kantian system.

And this I take it is why Kant completes his derivation with such brevity. For the two data points that he relies upon for his inference are that objects appear for judgment, and that judgment is possible for creatures like us. That objects appear is

undoubtable. That we have characteristic ways of determining those objects through judgment is also well-founded. Reflection on the forms of judgment, which represent the way objects are possibly determinable, we can infer to the possible ways objects must be thinkable for such judgment to take place. The following is a brief representation of Kant's derivation of the categories through the forms of judgment.

In order for empirical judgment to come about certain tasks must be accomplished by the understanding. It is these tasks or activities that Kant labels the functions of judgment. Empirical judgment is what takes place when an object is determined by applying a predicate to the concept of it when the justification of such a determination is through sensation. For such an act to be completed the following determinations are necessarily implied according to Kant.

Every empirical judgment must be determined in its quantity, that is the type of unitariness that any object that is to be the subject of determination may have. A determination of an object may be made by applying a predicate to an object's representation individually thought of in its uniqueness and not under a general concept. This is called an individual judgment. A determination of an object may be made by applying a predicate to a representation where the objects are thought of not in their uniqueness as individuals but as constituting a plurality. This is called a particular judgment. A determination of an object may be made by applying a predicate to a representation of all the members of a class or kind where those members constitute a unity. This is called a universal judgment. Empirical judgment is possible in the above three ways. But these types of judgment are only possible if it is possible to think the

object being determined in such a way that the type of judgment may occur. Since thinking is through concepts there must be concepts applied to the sensory manifold which suitably bring the kind of unity required by the type of judgment itself.

For individual judgment to take place there must be a concept of the object of determination that makes possible the application of a predicate in the form of individual judgment. The concept that makes possible the representation of the object of determination as an individual is the concept of unity. For particular judgment to take place there must be a concept of plurality. That is, unless there is a concept which makes possible the representation of the object of determination as a group of individuals no particular judgment can occur. For universal judgment to take place there must be a concept of totality. That is, for a predicate to be applicable, even possibly, to all the members of a class, the members must be thinkable as a class, represented such that they constitute all the members of that class. The concept of totality makes that possible. In each case the concept makes the type of judgment possible.

Without these concepts of quantity no determination of the subject could take place such that the kinds of judgment which we engage in would be possible. Since these concepts must precede empirical judgment logically in order for empirical judgment to be possible, they cannot be received in the course of experience itself since experience itself is the product of empirical judgment. They are therefore apriori and necessary. Such is the case for all of the concepts which make empirical judgment possible.

Quantity represents only one of the tasks that must be accomplished for the production of empirical judgment. It is indeed necessary that the object of determination in empirical judgment first be itself determined in one of the three ways represented above and that there must be concepts for such determination. But it is not the only task which must be completed for there to be empirical judgment. Another task which must logically precede empirical judgment in order for empirical judgment to be completed is the task that Kant calls the quality in judgment. In empirical judgment a concept representing a determination of the object, known as the predicate, must be applied. The basic ways that predicates are applicable to subjects in empirical judgment constitute the options for determination in the task of quality.

Kant claims that a predicate may be applied to a subject in empirical judgment in one of three ways: First, a predicate may be applied to a subject affirmatively. That is, the subject concept, however determined in quantity, is placed within the scope of the predicate concept. Second, a predicate may be applied to a subject negatively. That is, the subject concept, however determined, is placed outside the scope of the predicate concept. Third, a predicate may be applied to a subject infinitely. That is, the subject, however determined, is placed under a predicate but without the subject thereby receiving any affirmative determination.

Because in each case the type of determination of the subject is distinct, and it is distinct in how the subject is effected by the application of the predicate to it, in one case being included underneath the light of the meaning of a concept and thereby being enlarged or clarified by that light, in another case being prevented from being included

underneath the light of the meaning of a concept and so being determined by being distinguished from the meaning thereby excluded, and in the last case being included underneath a concept which is defined by it being the common mark of those objects excluded from some other mark and therefore being part inclusion but only determined by exclusion, each type of determination represents a distinct necessary option in the task of determining the subject. None can be reduced to any of the others. So, in each case it must be possible for us to think an object suitable for it to be possible that determination of an object according to each of the types of quality of judgment may occur.

The concept of an object which is the concept that makes possible the affirmative determination of the object through the subject concept is the concept of reality. Reality is the concept we must have to think of an object which will be suitable for predication through affirmation. And while this captures some of the root of the meaning that is often attached to reality it is necessary to warn against importing other philosophical baggage into Kant's argument here. By using the name reality for the concept that makes possible affirmative determination of the object of empirical judgment Kant is limiting the concept of reality to that function in judgment. We must be able to think realities logically prior to applying reality through a predicate concept to a subject concept.

The concept of an object that makes possible negative determination of the object of empirical judgment is the concept of negation. Here the unfortunate coincidence of the name of the type of judgment and the concept which makes that

type of judgment possible may invite speculation which is unnecessary. We must separate the two by the structural differences as we have in the prior distinctions between type of judgment and concept of the understanding which makes possible the type of judgment. The task of determining an object through its subject concept negatively is only possible if we conceive of objects as lacking reality. This concept that allows us to think an object that way is the concept of negation. Unless it is possible to think of an object as lacking, a negation, no negative judgment is possible.

The concept that makes possible infinite judgment is the concept of bare limitation. In affirmative judgments the object is conceived of as a something which has reality. In the negative judgment the object is conceived of as something that lacks reality. In the infinite judgment the object is determined in the sense that a predicate is applied to it. But the content of the applied predicate is itself the class of things which are excluded from some other class. So, while the object is determined affirmatively, affirming reality of it, no new content is affirmed.

The examples Kant uses to distinguish between the types of judgment falling under the heading of quality of judgment are the following three judgments: the first is affirmative, the second negative, and the third infinite: “The soul is immortal”, “The soul is not mortal” , and “The soul is nonmortal”. In the affirmative judgment the soul is marked by eternal life and can only be so marked if the object is thought of as having reality which is thought through the concept of reality. In the negative judgment the soul is determined by being excluded from having the mark of being a dying thing. “A dying thing” must be conceived of here not as a reality or mark of some sort, but as

lacking reality in the object, or as a negation. In the last case, the difficult case of infinite judgment, the soul is placed within the sphere of those things which are nonmortal. But the concept of nonmortal includes both inanimate objects which neither live nor die as well as the objects which live, are animate, but don't die. Since it is marked it resembles an affirmative judgment, but since it is undetermined still in its content it is distinct from affirmative judgment which always contributes positively to the content of the subject. In this case the infinite judgment cannot decide between animate and undying and inanimate. The object, in infinite judgment is not thought of as marked or as not marked but as "limited" without any direction as to how or what the determining feature is that limits the soul. In order for this type of judgment, or type of determination of an object to take place we must be able to conceive of the object as something which can be determined by being limited without its content being extended. It is merely a limitation.

As with the categories of quantity the categories of quality are proved by the necessity of thinking an object as being in principle such that the functions of judgment described under the heading of quality may take place. They are apriori and necessary because they are not extracted from experience but that which is logically necessary and apriori that empirical judgment may take place.

The next function of judgment that Kant examines is the relation in judgment. Later, in explanation, Kant calls this the "relation of thinking in judgments". Longuenesse (1998) interprets this relation of thinking in the following helpful way: each moment of the relational task is distinguished "by the type of connection they express

between an assertion and its condition."[53] I find it helpful to think of the relation in judgment as the justificatory link or the form of the justification of the application of the predicate to the subject in judgment. In order for empirical judgment to occur, the application of the predicate must be justified or linked in a nonarbitrary and binding way. The task of the understanding here is the task of determining the type of relation that will provide the justification for the object represented by the subject concept to be determined by the predicate concept in empirical judgment. It may be so in the following ways, and each of these ways is irreducible to the others making each necessary.

A predicate concept may be linked to a subject concept in the form of the categorical judgment. Here the relation is one of inherence. A predicate concept may be applied to a subject concept conditionally if what is predicated of the subject is justified by being an implication of another predication. The form of such a justification is given in the hypothetical judgment. A predicate concept may be applied to a subject concept when the predicate concept represents the mutually exclusive and complete division of the subject concept. The disjunctive form represents the relation between the concept of a subject and that concept's complete and mutually exclusive division.

What makes each of these forms of judgment moments of relation in judgment is they are the ways subject concept and predicate concept may be necessarily linked, or thought, together. But in order for such judgments to be possible we must be able to

[53] Longuenesse (1998, 93).

think of objects as relations. In order to think relations in judgment we must have concepts for such thinking.

For a predicate to be applied to a subject as internal to the subject, or without any external conditions, the subject must be thought of as substance or that which a predicate may inhere in. This is the substance accident relation. For a predicate to be applied to a subject on an external condition one predication must be thought of as the ground of another the consequence. An object's being determined through a logically prior determination is only possible if the logically prior determined object may be thought of as a ground of the latter object. The relation of ground to consequence is a necessary relation for the possibility of the hypothetical judgment. Kant offers the relation of causality as the name of this relation. For a predicate concept to be applied to a subject concept in disjunctive judgment the relation between a concept of an object and that concept's complete and mutually exclusive division must be thought. This presupposes the concept of community. The name Kant gives here has proven a stumbling block for interpeters. But the necessity of the relation between the predicate concept, the division, and the subject concept, the cognition divided, is what is important. It is a necessary relation and so provides for the thinkability of the subject predicate relation. No judgment would be possible without these relations of thinking. And for us to complete such judgments we must first, logically, be able to think these objects themselves.

The modality of judgment Kant himself treats as a separate and special function of judgment distinct from the functions of quantity, quality, and relation. The distinction

Kant makes between modality and the other functions is the following: quantity, quality, and relation all contribute to the determination of the form of the content of judgment, but modality does not.[54] Modality of judgments, Kant says, concerns "the value of the copula in relation to thinking in general."[55] Thus Kant claims that propositions may be thought problematically, assertorically, or apodictically. And indeed reflection on the act of judgment shows that every judgment requires a determination of the level of commitment to the proposition judged when that proposition plays a role in thought.

So, while modality does not determine the content of the judgment it does represent an inseparable feature of every judgment the determination of which must take place for the judgment to be completed. A problematic judgment is one where the proposition judged is thought as constituting a logical possibility. An assertoric judgment is one where the proposition judged is thought as constituting an actual truth. An apodictic judgment is one where the proposition judged is thought as constituting a necessary truth. Kant elaborates the distinctions this way:

> The problematic proposition is therefore that which only expresses logical possibility (which is not objective), i.e., a free choice to allow such a proposition to count as valid, a merely arbitrary assumption of it in the understanding. The assertoric proposition speaks of logical actuality or truth, as say in a hypothetical syllogism the antecedent in the major premise is problematic, but that in the minor premise assertoric, and indicates that the proposition is already bound to the understanding according to its laws; the apodictic proposition thinks of the assertoric one as determined through these laws of the understanding itself; and as thus asserting *a priori*, and in this way expressing logical necessity.[56]

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[54] Kant (1998, A74/B100).
[55] Kant (1998, A74/B100).
[56] Kant (1998, A75/B101-A76/B101).

Here the example Kant uses shows what he takes the logical function to entail in its moments: it expresses the relation of the proposition to thinking in general. One way of thinking is the hypothetical form and in that form we see clearly the different levels of commitment accorded the different propositions which are used in that thinking. The antecedent position of the major premise of a hypothetical judgment indeed characteristically begins with “if” or “assuming”. But the minor premise of the same syllogism expresses a commitment to the actual truth of the antecedent. So, in the minor premises of the same mode of thinking we can see the same proposition treated differently. The characteristic question that Kant asks after expressing a determination of judgment by the understanding is what concepts are necessary for such a determination to take place.

As in the other cases in order for such a judgment to occur it must be possible for the level of assertability to be thinkable they make possible. These objects of thought are such that they must precede, logically, the judgment itself. Kant gives the names of the moments of the category of modality which is responsible for the possibility of modal judgments in a different way. They consist of correlates: possibility-impossibility, existence-non-existence, necessity-contingency. He does not explain this presentation. In the case of relation Kant also lists pairs of concepts. The other members of each pair in the moments of modality, impossibility, non-existence, and contingency hardly seem to be ways propositions may be related to thinking in general. In fact they represent ways objects may not be thought for propositions to be related to thinking.

In order to complete a problematic judgment I must be able to determine that the proposition is possible. But this requires that I first have to be able to think of possibility itself. In order to complete an assertoric judgment I must be able to determine that the proposition represents an actual existence. But in order to judge the proposition in such a way I must first have the concept of existence. In order to complete an apodictic judgment where the proposition is determined to be necessary I must first have the concept of necessity.

The relationship between the table of judgments and the *a priori* concepts is now established. The understanding which is a faculty for judging provides judgment with concepts. But since any single act of judgment must be determined itself in quantity, quality, relation, and modality, then there must be concepts of objects that make possible such determination. The *a priori* concepts given in Kant's famous deduction are thus the necessary *a priori* concepts without which no judgment would be possible. This symmetry between action in judgment and action in concept is critical for Kant's derivation. In the extended passage given above where Kant claims that "the same function that gives unity to the different representations in a judgment also gives unity to the mere synthesis of different representations in an intuition" we see how important this symmetry is.[57] It is also the symmetry required by the fundamental Kantian principle that Reason can have insight only into what it produces of its own design.

[57] Kant (1998, A79/B105).

One may dispute the primitive status of the determinations which Kant elaborates in the table of judgments and thereby question the status of the table of concepts that arises from them. In fact just such a strategy belongs at the heart of the different categorical system derived by Charles Peirce of which the next chapter addresses. But it is much harder to debate the relation Kant asserts between the tables of judgment and categories themselves. Just how could one judge "all" without being able to think of a unity? Just how could hypothetical judgment be possible without being able to think one determination the ground for another? Each basic concept provides a supposedly primitive way that objects may be thought so that judgment may be completed.

Kant has linked up a set of *a priori* concepts with functions of judgment. The *a priori* concepts are realities themselves that allow us to construct representations of other objects. He has also said that the *a priori* concepts are neither known empirically nor are they innate. The problem that arises, one similar to Kant's account of space and time, is that Kant innocently claims access to these realities in spite of the fact that his theory of experience has made access to realities off limits.

The implication of Kant's metaphysics of experience, that we only experience empirical objects but never the things in themselves, is well known but has not been given much consideration yet. But the implication is that we are cut off from reality itself, that our knowledge and experience is only of appearances thought of as objects, but not the source of those appearances, *the thing in itself*. Two issues then need resolving. How can we have knowledge of these *a priori* concepts themselves when we

are supposedly never in touch with the thing in itself and further how can the receiving of those *a priori* categories be conceived of as both non-empirical but also not innate?

An intuitive understanding which will continue to emerge in the chapter on Peirce as well as in the concluding chapter five stands out as a capacity both useful and necessary for Kant's account of experience. But it amounts to a different kind of experience entirely. Here I simply want to note that grasping *a priori* concepts means encountering them and receiving their full meaning so that they may be employed in thought. It cannot be a mere sensible intuition that makes this possible. Further Kant's unstated but obvious commitment to having a knowledge of this part of reality, these objects we might say insofar as they are real, is in conflict with his commitment to our never being in relation to reality itself conceived as the thing in itself.

Now we have elaborated two types of apriori necessary elements of experience. On the side of sensibility there are the apriori forms which make the manifold of intuition in principle organizable. And, although the actual organization of the manifold of intuition into appearance is accomplished by the understanding, the orgnizability of the manifold of intuition is only possible because of the forms of intuition. On the side of the understanding Kant establishes the apriori concepts through an analysis of judgment. Since judgment, or mediated determination of objects, presupposes objects for determination an account must be given of in principle what kinds of object are thinkable. The relation between the thinkability of objects and the possibility of judgment is for Kant very important: if a type of judgment is possible for us then it must

be in principle possible to think objects for that type of judgment. The type of judgment would not be possible if no object could be thought for the mode of judgment.

But the list of apriori elements is not thereby completed. For empirical judgment to take place there must be objects which can be determined by concepts gained through sensation and unless the concepts of objects may be applied to appearances, thereby giving them the form of objects appearing, no objective judgment would be possible. But Kant articulated a worry about the applicability of apriori concepts to appearances:

> Now pure concepts of the understanding, however, in comparison with empirical (indeed in general sensible) intuitions, are entirely unhomogeneous, and can never be encountered in any intuition. Now how is the **subsumption** of the latter under the former, thus the **application** of the category to appearances possible, since no one would say that the category, e.g., causality, could also be intuited through the senses and is contained in the appearance?[58]

The problem is very serious and its resolution is central to the completion of Kant's account of the apriori concepts of the understanding. The fundamental claim is that the objective content of appearances must come from the basic thinkability of objects themselves. The apriori status of these concepts, and as Kant says in the quote above the fact that they in principle have no intuitive representation are not homogeneous with appearances. This unhomogeneous status is ascribed to apriori concepts because of the lack of sensory or intuitive content. Just how could they ever be applied legitimately unless some mediating representation can provide a rule or guide for the

[58] Kant (1998, A127/B176-A138/B177).

application of the apriori categories? To this last apriori element of experience we now turn.

1.4 The Schematism of the Pure Concepts of the Understanding

The problem that needs solution is the impossibility of finding intuitive instances of the apriori concepts in appearances and the resulting lack of guidance in the application of apriori concepts to appearances. Kant's solution is original, dense, and brief. He did not consider a full account necessary. His account at best provides the outline of a solution. "On the schematism of pure concepts of understanding" was said by Schopenhauer to be "famous for its profound darkness, because nobody has yet been able to make sense of it." [59] Heidegger said of the same chapter "We have frequently stated that this piece is the central piece of the *Critique.*"[60] Peirce claimed "if the schemata had been considered early enough, they would have overgrown his whole [Kant's] work."[61] This combination of mystery and significance given to the chapter that contains our solution serve only to exemplify the difficulty of understanding Kant's work.[62] In what follows schema is singular for a "rule for the determination of our

[59] Schopenhauer (1969, 450).
[60] Heidegger (1997, 291).
[61] Peirce (1.35). References of this sort to Peirce are in accord with the standards for citation from Peirce's *Collected Papers*. The first number stands for the volume. The second number stands for the paragraph within the volume.
[62] In my research on the schematism section of Kant's *Critique of Pure Reason* I have depended heavily on Longuenesse (1998). There are many other articles and chapters on the schematism of various helpfulness. Bennet (1966) and Warnock (1949) are dismissive of Kant's solution but less than clear about what the problem is Kant is trying to solve. On the other hand there are several good and interesting interpretations that are worth consideration. These include Schaper (1964), Banham (2006) especially chapter 5, Walsh (1957), and Pendlebury (1995).

intuition in accordance with a certain general concept", schemata is plural for schema, and schematism is the "procedure of the understanding with these schemata".[63]

The first condition that Kant offers for a solution to the application of the categories to appearances is that whatever representation serves as a rule for the application of categories to appearances must itself be homogeneous with both categories and appearances. "Now it is clear that there must be a third thing which must stand in homogeneity with the category on the one hand and the appearances on the other, and makes possible the application of the former to the latter."[64] In other words it must share the character of both the understanding and sensibility if it is to serve as mediating relation between both. Kant says that a transcendental time determination, or transcendental schema, is just such a representation.

His argument is as follows: "The concept of the understanding contains pure synthetic unity of the manifold in general."[65] In other words in the concept of the understanding is contained the complete extent of the possibility of unifying the manifold. The function of the understanding is to unify the manifold, it is the faculty for synthesis, and so we are to take this to be a claim grounded on the very nature of the understanding. There is no possible synthetic unity of the manifold which is not already contained in the possible use of the understanding.

Next, Kant claims that time, as the formal condition of the manifold of inner sense, contains an apriori manifold in pure intuition. Since time is the formal condition

[63] Kant (1998, B179-B180).
[64] Kant (1998, A138/B177).
[65] Kant (1998, A138/B177).

of inner sense it is also the condition for the connection of all representations and so all appearances. The manifold of inner sense includes anything that can belong to the inner state or consciousness. Every one of these representations must be determined as simultaneous or successive and therefore stand in relations of time. And since time is apriori, then it contains every possible relation, all quantities, of time apriori.

Last, with on one hand the understanding containing all possible synthesis of the manifold and time containing all possible relations of the manifold, the determination of time is the representation which includes both the understanding and sensibility and thus provides the mediating relation between the two. The transcendental time determination is a representation which provides limits on the possible use of the categories of the understanding so that they are applied correctly to appearances. Since appearances are in time, the categories must be guided so that they are applied within the conditions of temporal ordering. Every category thus must have a restricting rule which limits its applications to the conditions of our sensibility.

The difficulty here cannot be overstated. The categories of the understanding as derived from the function of the understanding in judgment have only logical use. As inner sense is determined by the understanding it must be determined in accordance with its formal condition, time. So, each category must have a temporally sensitive application, a representation which embodies the logical meaning of the category, but directs its use to the condition of inner sense. Each category then has a schema, otherwise known as a transcendental time determination, and these schema are apriori, being the mediating relations of two apriori conditions: the categories of the

understanding and the apriori manifold of the intuition of time itself. Even if the necessity of the mediating relation that provides the solution for Kant's problem can be argued Kant elaborates very briefly and so leaves many questions about these representations.

Kant provides a schema for the categories of quantity, a schema for quality, and then a schema for each moment of the categories of relation and modality. In each case the schema is meant to be a representation that makes possible the time determination of the manifold of sense or provides a rule or limit for the application of the category that it is the schema of.

The schema of quantity Kant says is number. Here is how Kant explains the schema number: "a representation that summarizes the successive addition of one (homogeneous) unit to another. Thus number is nothing other than the unity of the synthesis of the manifold of a homogeneous intuition in general…"[66] The category of quantity is applicable to the manifold of intuition through the representation of number. For Kant number represents, as schema, a procedure for adding each of the manifold intuitions which together constitute a homogeneous intuition. Without this general procedure of adding homogeneous units it would be impossible to combine the manifold in such a way that a homogeneous intuition of any kind would emerge. Another way to make the point Kant is after would be to say that having an object in the sense of an individual before one to interact with first depends on the manifold of sense being combined into an appearance of that object which depends upon the procedure

[66] Kant (1998, B182).

of combination which is represented by the idea of number. On the side of the understanding there is quantity. On the side of the sensibility there is formally the condition of time, that is a discrete manifold that is addable and countable. Number is the representation of the procedure by which the category of quantity may be applied to the manifold of sensibility.

The schema of quality must make possible the application of the categorical moments of reality, limitation, and negation to appearances. Here Kant says the schema is the schema of reality "as the quantity of something insofar as it fills time".[67] The procedure is not given a name like number above but is described as "continuous and uniform generation of that quantity in time, as one descends in time from the sensation that has a certain degree to its disappearance or gradually ascends from the negation to its magnitude."[68] Kant says that reality is that in the understanding to which a sensation corresponds and that which indicates a being in time.

The synthesis which must take place for the category of reality to be applied to appearances is not a successive procedure like the schema of number. It is not the successive gathering up of homogeneous units. Here the synthesis that must take place is a matter of degree. For a suitable representation to emerge which allows for the application of the category of reality it must be possible to track the different degrees of sensation as they change in spite of the unchanging object represented. How does a reality come to be represented if sensation is ever changing? Only if the differing

[67] Kant (1998, B183).
[68] Kant (1998, B183).

sensations can be represented as degrees of the same sensed object. So, for there to be a reality in time, there must be a representation of degree.

The schema of substance is the procedure of representing the persistence of the real in time.[69] For the application of the category of substance there must be a procedure for constructing the representation of persistence. In appearance there must be that which is unchangeable in existence. Here and with the latter schemata Kant asserts what must be represented in appearance for the category to be applied, but he says little about the procedure that makes possible such a synthesis of appearances. The schema of a cause is "the real upon which, whenever it is posited, something else always follows." The schema of community is "the simultaneity of the determinations of the one with those of the other, in accordance with a general rule." But again, little is said by Kant about what the procedure actually is.

When Kant elaborates the schemata of possibility, actuality, and necessity he states what must have even sounded to him hardly explanatory in regards to the original intention of elaborating the representations that mediate the application of the categories to appearances. Kant suggests in the chapter itself that "this schematism of our understanding with regard to appearances and their mere form is a hidden art in the depths of the human soul, whose true operations we can divine from nature and lay unveiled before our eyes only with difficulty."[70] But help is found at least in the overall intention of the schemata and the model of apriori elements that Kant intends to

[69] Kant (1998, B183/A144).
[70] Kant (1998, B181).

elaborate by appealing to a few passages from the section on the schematism of the understanding other than those which specify each schema.

Kant says the following in general summary:

> The schemata are therefore nothing but a priori time-determinations in accordance with rules, and these concern, according to the order of these categories, the time-series, the content of time, the order of time, and finally the sum total of time in regard to all possible objects.[71]

From the above passage we see that the function of the schemata is to provide procedures for the temporal-determination of appearances so that appearances will be suitably determined in inner sense for the application of the categories. And this general point is without question an important one. The categories cannot be applied unless they are applied to a content which can be legitimately subsumed under them. Since, as humans all content of inner sense is in time, then the suitability of appearances for categories must be a determination of time. The procedures that provide the determination of time must be procedures which are connected to the categories in the sense that they must provide construction of the manifold of intuition for the categories. And this is why they are schemata of the categories.

Another helpful comment made at the end of the chapter on the schematism of the understanding directs our attention to earlier portions of the Analytic, specifically the B deduction of pure concepts of the understanding.

> From this it is clear that the schematism of the understanding through the transcendental synthesis of the imagination comes down to nothing other than the unity of all the manifold of intuition in inner sense, and

[71] Kant (1998, B184).

> thus indirectly to the unity of apperception, as the function that corresponds to inner sense.[72]

Here Kant points to the synthesis of the imagination as the source of the unity of the manifold of intuition. But if the imagination plays a role in synthesizing the manifold of intuition how is it that this synthesis is guaranteed to be the synthesis required for the application of the categories? This is an important question given that the imagination is not a faculty of rules as the understanding is. The B deduction of the pure concepts of the understanding contains Kant's answer:

> This synthesis of the manifold of sensible intuition, which is possible and necessary a priori, can be called figurative.[73]

Kant here names the synthesis which takes place through the schema a figurative synthesis. This is a separate synthesis and not to be confused with the synthesis that is brought about through the categories of the understanding. This is a logically prior synthesis which is required so that the sensory manifold is constructed in such a way that it represents in appearance instances suitable for subsumption under the categories. The rules that provide guidance for this synthesis are meant to be the schemata. And as Kant has argued by deriving the schemata from the categories in combination with the condition of time the schemata must prepare the sensory manifold for categorical subsumption. The only way the rules used for this figurative synthesis are able to accomplish this task is that they are the same actions of synthesis performed figuratively that are performed intellectually through the categories.

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[72] Kant (1998, B184).
[73] Kant (1998, B155).

> Now that which connects the manifold of sensible intuition is imagination which depends on understanding for the unity of its intellectual synthesis and on sensibility for the manifoldness of apprehension.[74]

Kant ascribes the faculty of imagination as the faculty which is responsible for this figurative synthesis. But as the above quote states the imagination is dependent on the understanding for guidance. Without the guidance of the understanding the imagination itself, even if productive in synthesis, would not necessarily provide a synthesis which would make possible the application of the categories to appearances.

> The understanding therefore does not find some sort of combination of the manifold already in inner sense, but produces it, by affecting inner sense.[75]

> …the imagination is to this extent a faculty for determining the sensibility a priori, and its synthesis of intuitions, in accordance with the categories, must be the transcendental synthesis of the imagination, which is an effect of the understanding on sensibility and its first application (and at the same time the ground of all others) to objects of the intuition that is possible for us.[76]

The two above passages offer a hint as to how Kant understands the influence that the understanding has on the imagination. It affects the inner sense. And it affects inner sense precisely by directing the imagination in its effort to judge. Just what is the effect of the understanding on sensibility? The task of the understanding is to provide concepts for judgment. In other words the understanding is a faculty for judgment.[77]

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[74] Kant (1998, B164).
[75] Kant (1998, B155).
[76] Kant (1998, B151).
[77] Kant (1998, A69/B94). "We can, however, trace all actions of the understanding back to judgments, so that the understanding in general can be represented as a faculty for judgment."

The connection between understanding and judgment is crucial for Kant's model of experience. It would not be a stretch to say that for Kant the possibility of experience, or as he calls it empirical cognition, depends upon the possibility of applying predicates received through sensation to objects. But this is only possible if we have the capacity to think objects for determination which makes necessary the categories. And the categories can only be applied to appearances, so that objects emerge for judgment if the appearances are suitably constructed by the imagination through the schema of the understanding. The schema are a firgurative effect, on the imagination, of the effort to judge. And it is this effort, or goal we might call it, which impresses itself on the sensibility through the imagination. Were there no effort toward judgment, mediate determination of an object, there would be no need for categories or schemata.

Whether Kant provides a suitably complete account of the schematism of the understanding is hardly worth debating. It is clear that in general the idea of schemata was important for him to insert into his account of the possibility of experience. While he takes minimal pains to enumerate the identities of these apriori representations he clearly does not see as crucial to the overall thrust of the *Critique of Pure Reason* a detailed analysis of the schemata themselves. But from his writings we can gain an important characterization of this third element of the apriori elements of the possibility of experience. Schemata are the rules or procedures that guide the imagination in a figurative synthesis of the manifold of intuition with the goal of a synthesis which makes possible the application of the categories. As procedures of construction the schemata are not concepts, but neither are they intuitions. Schemata are individuated according

to the categories since their very function is to determine sensibility in such a way that the categories may be applied. It is the necessity of finding a mediating relation which can make possible the application of the categories to appearances that makes this third element necessary.

1.5 The Elemental Conditions for the Possibility of Experience

A model of the possibility of experience begins to emerge. Experience as empirical determination of objects depends upon the capacity to judge. Judgment is only possible if we have the ability to think objects for judgment. Categories are the apriori concepts which make possible the thinking of objects for judgment. These categories are justified by the necessity of thinking objects for judgment. Without them no objects could be thought for appearances to be the appearances of. Those categories then must be applicable to appearances in order for the appearances to represent objects. The schemata provide the temporal procedure for the figurative synthesis that prepares the sensory manifold for subsumption under the categories. Last, even though the understanding is responsible either directly in its intellectual synthesis with the categories or indirectly through its effect on sensibility in the figurative synthesis with the schema the orderability of the matter of sensibility is only possible if there are forms of intuition. These forms, space and time, are universal for beings such as us, and apriori, not being the product of experience but necessary for experience, but not universal in the same way that the categories of the understanding are. They represent our way of receiving the effects of the other which we invariably encounter.

Each element is discovered apriori and each element is necessary for experience to emerge. Their apriori status is provided by there being presuppositions for experience . Without these elements, so Kant claims, experience would not even be possible. Kant's effort in the *Critique of Pure Reason* to display the apriori elements which make possible experience is not complete in every detail. But in broad outline it represents a masterful attempt to provide an account of how experience is possible. As I noted in the introduction and at certain points throughout my analysis the constructivist theory of experience articulated by Kant is tied to some of his fundamental presuppositions. The collection of all of these classically metaphysical realities such as space, time, substance, causality, necessity and so on into a structure brought about by those realities being necessary for experience to be possible provides each classical metaphysical reality with its meaning and role in making experience possible. And in the end their fate is tied, according to Kant, to their logically necessary presuppositional status.

Much of this is motivated to my mind by Kant's rejection of intellectual intuition, which leaves Reason in the position of never being able to grasp a metaphysical reality in its essence, but only to understand metaphysical reality as a systematic logical structure for the possibility of experience. But there are moments in Kant's research where he seems to leave the possibility of a kind of insight into classical metaphysical realities that belie his rejection of intellectual intuition, of which at this point I have only described as a grasping of the essential and necessary reality of an object of thought. But what of time and space themselves or these metaphysical realities that make up the

categories? What of the "original acquisition", the grasping of them, are they also, as objects of thought, as objects that can be held before the mind and reflected upon, are we faced with appearances only, and how under the theory that the thing in itself is never in our grasp, do we grasp these realities. And if Kant means by experience observation and induction is there not another kind of experience something more fundamental that can be spoken of that enables us to grasp metaphysical realities in their essential reality? These questions will be dealt with in chapter five.

The American philosopher Charles Peirce relies heavily on Kant's work to continue the project of accounting for the necessary conditions of the possibility of experience. Peirce, like Kant before him, takes experience as a focus of investigation. Even though Peirce's categories are not exactly the same as Kant's and he develops a notion of sign that greatly enlarges the role of mediating relations between appearances and the understanding in place of Kant's schema, I will show in the next chapter that much in Peirce's own investigations is rooted in the Kantian model of the possibility of experience described above. It is to Peirce's model that I now turn. And in turning to it I am looking for both Peirce's augmentation of the Kantian constructivist system, and whether the kind of methods he claims to use in his investigations allow for the kind of discoveries that he makes. Peirce rejects intuition explicitly, but in his second and later derivation of the categories he constructs a method that looks suspiciously like a kind of intuition.

Chapter 2: Peirce's Arguments Against Intuition

2.1 On the Lack of a Clear Mark of Intuitiveness

In the Transcendental Aesthetic of his *Critique of Pure Reason* Kant argues for the forms of intuition: space and time. They are apriori elements of experience on the side of sensibility. He says at the beginning of the B edition of the Transcendental Aesthetic that an intuition is that through which a cognition relates immediately to objects.[78] In speaking of time Kant says "that representation, however, which can only be given through a single object," is an intuition.[79] Later in the first book of the Transcendental Dialectic Kant places intuition in the class of cognitions, which falls under the class of perceptions, which falls under the class of representations. Of the intuition Kant says it is "immediately related to the object and is singular."[80] So far we have a kind of representation which is of objects and singular. Even Peirce, in his account of representation, makes a distinction between indexes and symbols, and the distinctions between singularity and generality are found in Peirce as well. But I will consider Peirce's account of signs and the different classes he places them into in chapter four. What Peirce finds problematic about Kant's account of space and time, and his account of intuition in general is not the distinction between intuition and concept *per se* insofar as that distinction is between representations of singular objects

[78] Kant (1998, A19/B33).
[79] Kant (1998, B47/A32).
[80] Kant (1998, A320/B376-B377).

and representations of general ideas. What Peirce finds problematic is that it is necessary to presuppose a faculty of intuition, that the idea of an intuition, as Kant conceives it, is conceivable, and that there are any representations that are known to be determined solely by objects without being mediated by other representations. So, there is a sense in which Peirce's project is more radical than Kant's. He rejects intuition outright, even sensible intuition. Is it possible to construct a philosophical account of experience with no immediate contact, either intellectual or sensible, of objects? Peirce, I will argue, changed his view of the need for intuition in his account of the possibility of experience.[81]

When Kant speaks of our cognition of space and time he means a non-empirical, singular, and immediate representation of space and time. This apriori status of our cognition of space and time is called by Kant pure intuition. As was discussed in chapter one on Kant's elaboration of the apriori elements of experience Kant claims that once the concepts of the understanding and even the sensory qualities are removed from an empirical intuition that "something from this empirical intuition is still left for me, namely extension and form. These belong to the pure intuition, which occurs *a priori* even without an actual object of the senses or sensation, as a mere form of sensibility in the mind."[82] For Kant it is this leftover formal content that must be accounted for by a special faculty and which is characterized as being in immediate relation to its object.

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[81] See chapter three of this work for Peirce's discovery of the categories and chapter four for Peirce's semiotic theory. It is in chapter three that I show where Peirce employs intuition.

[82] Kant (1998, A20-A21/B35).

Peirce takes Kant's position to entail three propositions: first, there must be evidence for a faculty of intuition as distinct from the understanding and sensibility itself. Second, it must be impossible to conceive of representations of space and time except through the existence of such a faculty. But, absent the evidence for a distinct faculty of intuition with its own apriori content the intuitive cognitions of space and time are called into doubt. And, if an explanation for the sources of space and time can be found independently of presupposing an intuitive faculty, then there is no reason to presuppose it. If the faculty itself is called into question, then certainly the apriori status of the cognition of space and time is called into question as well. Third, Peirce challenges the idea that there are any representations like intuitions. He argues that the very idea of a representation determined by the object itself and so not by any other representations is not conceivable. In what follows I show how Peirce justifies calling into question the type of representation Kant labeled intuition. But, as I said earlier, this shouldn't be taken as final since Peirce revises his position on intuition in his later work.

Peirce famously rejects intuition as a mode of cognition but still attempts to provide an account of the necessary elemental conditions of the possibility of experience. However, when Peirce performs a similar experiment to that of Kant, that of peeling away the layers of an empirical intuition, Peirce finds all of the elements to correspond to the categorical structure of the understanding. This discovery corresponds well with his claim that there is no apriori knowable form of intuition. For him any phenomenological investigation into appearances will only result in further confirmation of the categories of the understanding. This suggests that both space and

time are further conceptual elements that unite the manifold of sensation. Below I offer his reasons for thinking our representations of space and time are indeed conceptions of the understanding and not peculiar representations of a unique faculty of intuition. Peirce's own efforts to investigate appearances and their formal elements will be covered in chapter three on his discovery of the categories since his investigation leads to the categories and not to forms of intuition.

There is another idea at work in Peirce's philosophy that fulfills some of the Kantian idea of an intuition. Kant's conception of an intuition, which includes apriori knowable forms, could be called intuition in the strong sense. Peirce's notion of intuition, which he calls indexicality, might be termed intuition in the weak sense. According to Peirce such representations have no apriori knowable form. Peirce however thought that substituting a weaker indexicality in place of the strong notion of intuition that Kant incorporates into his philosophy would do little damage to the Kantian systsem. Whether he was right about this is not something I will take up. In his arguments regarding the nondiscursivity of the conception time Kant uses the term intuition in a slightly weaker sense: "That representation, however, which can only be given through a single object, is an intuition."[83] Here he seems to speak of an intuition as one that stands for a single object. This I would call the weaker sense of the use of intuition by Kant. But in this sense intuition is much closer to the semiotic category of indexicals. They are merely incomplete representations of individuals, but not full representations since they do not communicate any content to the mind about their

[83] Kant (1998, B47/A32).

object. Indexicals merely point or direct attention but with no message about what they are pointing to beyond what might have been learned from past experience. That there are representations of individuals that are distinct from general representations is accepted by both Peirce and Kant. Kant calls them intuitions while Peirce calls them indexes. This weak sense of intuition is not at issue here. Peirce says as much in a footnote:

> Kant, it is true, makes space and time intuitions, or rather forms of intuition, but it is not essential to his theory that intuition should mean more than "individual representation."[84]

It is the strong sense of intuition that is according to Peirce unnecessary. This strong sense includes the idea of "immediate relation to objects" as an epistemological state. For Peirce it is not necessary to regard intuitions as in immediate relation to objects, and it is this that is the source of his arguments against intuition.[85] And, Kant does seem in most cases to understand intuition as a kind of cognition and perception. It is hard then to simply read him in the weaker sense. Just why Kant held such a view, and why he thought it necessary to say that all conceptual activity is directed ultimately at intuitions which are immediately related to objects will not be examined here. This chapter will be consumed largely with showing that the class of representations called intuition, in the strong sense, should not be a part of our understanding of the necessary elements of

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[84] Peirce (1992, 17).

[85] Others have debated this very issue. Hintikka's "On Kant's Notion of Intuition" in *The First Critique*, ed. By Penelhum and MacIntosh, argues that there is no need for the "immediate relation to objects" feature. Allison (2004, 81) notes that J.S. Beck as early as 1791 raised questions about whether Kant's account of intuition could be squared with his claim that it is the role of the understanding to confirm objectivity on representations.

experience. They are not full cognitions and so play no epistemic role according to Peirce.

This strong interpretation of intuition here presented and criticized provides Kant's philosophy with what might be viewed as an epistemological foundation. And some have viewed such epistemological foundations with suspicion. Peirce is undoubtedly one of them, and his arguments here presented are to be interpreted as arguments against the strong sense of intuition here explained. But it will emerge throughout the investigation that Peirce's project of discovering the necessary elements of experience is either put in jeapordy since there is no guarantee of a relation to objects or if not intended to provide the necessary elements of experience leads to a failure to satisfy the desire of Reason for true universality and necessity.

That intuitions in the weak sense are representations of individuals does not automatically provide them with the foundational epistemological status they are given in the strong sense of intuition. And that they are representations of individuals does not require a separate faculty. As will be shown in chapter four according to Peirce the mind always operates in signs and the broader class of sign encompasses this weaker sense of intuition just as well as what Kant calls general concepts.

Peirce's criticism of intuition can be found in his early paper "Questions Concerning Certain Faculties Claimed for Man" which dealt extensively with Kantian themes.[86] In particular Peirce offers the following argument: since we have no intuitively

[86] I have found it valuable to go through several of these arguments in more detail here. *Questions Concerning Certain Faculties Claimed for Man* is reviewed in Hookway (1985) but in passing and without great detail. Hausman (1993) covers the text more

certain criteria for determining whether a cognition is indeed an intuition or not, we cannot ever know whether any cognition is in fact an intuition. Now if we cannot be sure that we ever have intuitive cognitions because there is no mark by which they can be distinguished from cognitions determined by other cognitions of the same object, then surely it will prove impossible to derive the forms of such intuition as Kant intends to do.

Peirce defines intuition in the following way: an intuition is a "cognition not determined by a previous cognition of the same object, and therefore determined by something out of the consciousness."[87] Kant calls intuition an "immediate representation" of an object. He says, "In whatever way and through whatever means a cognition may relate to objects, that through which it relates immediately to them, and at which all thought as a means is directed as an end, is intuition."[88] The question Peirce poses is whether we can be sure such cognitions exist, that is cognitions that are determined by something out of consciousness and not determined by another cognition. He sets up the question this way:

> Now, it is plainly one thing to have an intuition and another to know intuitively that it is an intuition, and the question is whether these two things, distinguishable in thought, are, in fact, invariably connected, so

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thoroughly. See especially pages 60-67. But Hausman views the text as primarily directed at Descartes and I have taken the approach that the text is primarily directed at Kant and his use of intuition in Transcendental Idealism. Peirce himself communicates that the target of his criticisms is "Cartesian philosophy" in *Some Consequences of Four Incapacities* which continues the themes of *Questions Concerning Certain Faculties Claimed for Man.* The idea then is that Kant inherits some Cartesian characteristics.

[87] Peirce (1992, 11).

[88] Kant (1998, A19/B33).

> that we can always intuitively distinguish between an intuition and a cognition determined by another.[89]

Now, the option that Peirce does not yet consider is that the faculty of intuition is necessary, justified by some reasoning about what is required given other things that we know. Later, I will work through Peirce's argument for thinking that intuition is not necessary. In other words we neither have good arguments for thinking we can intuitively distinguish intuitions from cognitions determined by other cognitions nor do we have reasoning to show that intuitions are necessary elements of our cognitive life. First, I examine his reasoning for thinking that there can be no intuitive knowledge that any given cognition is itself intuitive.

Peirce's conclusion about the possibility of ascertaining the distinction between intuitions and cognitions determined by prior cognitions is the following:

> There is no evidence that we have this faculty, except that we seem to *feel* that we have it. But the weight of that testimony depends entirely on our being supposed to have the power of distinguishing in this feeling whether the feeling be the result of education, old association, etc., or whether it is an intuitive cognition; or, in other words, it depends on presupposing the very matter testified to. Is this feeling infallible?[90]

Peirce continues the article with a survey of examples in which feeling cannot be trusted, since we make mistakes about whether the feeling we have is the result of education, old association or intuition. The argument against intuition in this case is settled based on the impossibility of infallibly verifying whether any particular cognition is itself intuitive. The strategy is clear: there is no mark of a cognition that picks it out as being a cognition immediately related to objects. Amongst our representations there is

[89] Peirce (1992, 12).
[90] Peirce (1992, 12).

no mark that clearly distinguishes those that are determined by prior cognitions from those that are determined by the objects themselves. So, if it follows that we cannot distinguish between these types of representations we will not be able to judge space and time to be apriori forms of immediate relations to objects.

In support of such a conclusion Peirce gathers quite a list of historical facts in favor of the idea that we actually cannot distinguish an intuitive cognition from one determined by prior cognitions of the same object. He begins with an analogy between intuition and external authority that was thought at one time to be a suitable source of knowledge. Assume for the sake of argument that there was a time when people considered authority a suitable infallible guide to knowledge of objects. Of course it turned out that external authority was not an infallible guide. It was not related to its object immediately. Instead authority was determined by prior cognitions in a way that occasionally made it possible for authority to misrepresent the objects it was meant to represent. Peirce sees little difference between intuition and external authority except that one is external while the other is internal. [91] But why should the internal or external status of the relation to objects be any safer indication of infallibility? Peirce's prediction is that the internal authority of intuition as a faculty for determining whether or not a cognition is an intuition or a cognition determined by other cognitions will undergo a similar repudiation. This argument from the analogy with authority is certainly not deductively valid. But it does provide reasons for questioning the claim that there are

[91] Peirce (1992, 13).

some representations that are immediately determined by objects, and so certainly of or about objects.

Next Peirce enlists evidence from some historical reflections meant to cast doubt on their being any reliable guide to whether a cognition is intuitive or not. Each example is meant to show that we sometimes confuse cognitions determined by other cognitions for intuitions making it thereby impossible to claim that we can identify safely and securely the difference between intuition and cognitions determined by prior cognitions. Lawyers, among other things, are expert at getting witnesses to doubt whether they observed or inferred some fact under question. The witness comes to the stand certain of some fact until under further questioning they find it possible they only interpreted or inferred what was beyond direct or immediate observation. Magicians, on the other hand, cause observers to think that they immediately observe something that did not in fact occur.[92] The cognition that two linked rings have been pulled apart appears as an immediate observation, but the fact that the rings were never originally linked shows that the cognition could not have been in an immediate relation to its object. The object, linked rings, never existed. So, the fact that lawyers regularly cause people to doubt whether something intuited was really determined by other cognitions and the fact that magicians regularly cause people to mistake a cognition determined by other cognitions for an intuition shows that we have no reliable guide for knowing which is which.

[92] Peirce (1992, 14).

Now, it may be asked what the strategies of lawyers and magicians have to do with whether we can know anything about either the intuitive or nonintuitive status of a cognition? They show simply that we can be mistaken about whether a cognition is one or the other and we can mistake each for the other. One might respond at this point that intuitions in the sense that Kant understood them were singular and unique and these are complex perceptions involving in the lawyer cases communication, memory, and other complex inferentially mediated responses. Peirce does not deal with such a response explicitly, but his next example may address the objection sufficiently.

Whether one is discussing the reflections of one's observations respective to an accusation of wrongdoing or whether one is discussing the unconscious cognitions that construct the illusion of linked rings when no such rings exist they both are situations that fall under the general category of cases where the difference between what one takes to be representations immediately related to objects and cognitions determined by other cognitions are blurred so that an accurate classification of the cognition cannot be made. If there are any cases where an intuition and a cognition determined by other cognitions are mistaken, then the intuitive faculty is cast into doubt. As Descartes says "It is prudent never to trust completely to those who have deceived us even once."[93] Peirce appears to be holding the same standard that Descartes held. If we are to claim that we have an intuitive faculty, then we should be able intuitively to distinguish intuitions from cognitions determined by other cognitions. The fact that we cannot always do this casts doubt on their being a faculty that stamps cognitions with such an

[93] Descartes (1984, 12).

indicator. How many examples are necessary to show that in general we have no reliable guide to whether a representation of an object is determined by the object itself or determined by other cognitions?

Without belaboring the full details of each of Peirce's examples I will summarise them in order to capture essentially their bearing on the issue at hand. A dream, "as far as its content goes"[94] is indistinguishable from an external experience as is for that matter a dream that only contains a single quality lasting in space and time for some duration. Now external reality and dream states are distinguishable but only upon reflection and by signs, not intuitively. A dream is obviously a complex cognition determined by other cognitions and is not in an immediate relation to its object. And yet, as Peirce suggests, there is no mark in its immediate content which shows us its nonintuitive character, hence the reason we often in dreams believe that we are experiencing what we are only dreaming.

Likewise a child will say that he is certain he has never learned his mother tongue when asked how he acquired the knowledge. He will say he has always had it or that he gained it when he first gained sense.[95] He clearly then lacks the faculty for distinguishing between knowledge that he has originally and knowledge that he has determined by other cognitions. Now aside from the legitimacy of Peirce's claim about how children respond to the question of how they acquired their language Peirce's example is meant to exemplify that it is possible for us to be mistaken about whether something like language is original or whether it is learned. In the same way Peirce

[94] Peirce (1992, 14).
[95] Peirce (1992, 14).

seems to suggest we may think representations like space and time are original, apriori forms of intuition, when they may be learned in the sense of being representations that are grasped in order to reduce the manifold of sensation to unity.

Peirce last directs the reader's attention to a set of observations regarding the senses the evidentiary strength of which has only increased with the more recent discoveries in the field of psychology. These examples like the ones before them are meant to lend contrary evidence to the idea that we have any feeling or intuitive knowledge of the status of cognitions in regards to whether they are intuitive or determined by other cognitions. For instance it is now commonly known that the retina contains a blind spot. But the visual presentation that appears to a perceiver contains no such blind spot. The only way it is possible for the visual field to not contain the blind spot which we know exists through experiment is that other cognitive processes construct a visual presentation from the available sensory data. Since we see a full colorful presentation that is different from what the immediate presentation must be from the sensory organ, then inference must play some constructive role. Even the colorful presentation available for thought is a representation determined by other representations and not immediately related to its object. And yet it certainly appears as if it is. This then is more evidence that we cannot intuitively distinguish cognitions determined by other cognitions and cognitions that are in immediate relations to their objects. We know this to be the case because we could not intuitively know that visual

representations are cognitions determined by other cognitions except through experience and reasoning.[96]

Another fact, the truth of which is easily verified, is that there are cases where feelings themselves are learned. That is, a man may learn to feel the differences between different shades of cloth, but only after much practice.[97] Examples could be multiplied. The novice cannot sense the difference between the various flavors of pipe tobacco or wine but the seasoned expert can. A novice may not be able to hear the distinctions between the call of a Mississippi Kite and a very similar sounding call made by the common Mockingbird while an expert can. But we should note that in each case the distinctions learned are distinctions in feeling. That we can discern the difference between feelings that are in immediate relation to objects and feelings that are determined by other representations learned over time is cast into doubt by the fact that in these several cases we are not able to do so intuitively.

The above arguments have cast doubt on the possibility of any intuitive knowledge of the difference between an intuition and a cognition determined by other cognitions. Peirce's argument amounts to the claim that even if there were intuitions we could not know that there were for we have no ability to safely distinguish between the two. Peirce began with the question of whether just by examining the content of a cognition or representation we could tell whether it was intuitive or not. He suggested that an intuitive faculty would be required because there is nothing in the content of a cognition that marks it either as an intuition or a cognition determined by other

[96] Peirce (1992, 15).
[97] Peirce (1992, 15).

cognitions. The reasons articulated support the claim that we have no such faculty given that we cannot safely determine the difference between an intuition and a cognition determined by other cognitions. Next, Peirce deals with the claim that intuitional cognitions can be established by reasoning for their necessity. It may be that space and time have various interesting features that require us to presuppose intuitions. Peirce however argues that it is not necessary to presuppose intuitions in order to account for time and space. They can be accounted for without the presupposition of intuition.

Several responses may be provided against the main points of Peirce's initial criticism of the possibility of intuition. Peirce cites examples of where people think that they have intuitive certainty and it turns out that they don't. These examples of error are meant to cast doubt on the possibility of an intuitive faculty. But one response that emerges from the initial discussion of intuition and Kant's theory of experience is that perhaps intuitive relations to some parts of reality, or some objects, is possible while not with others. The fact that Peirce has shown that intuitive relations fail in some cases does not thereby preclude intuition from existing in experience of other parts of reality. His later argument against the very conceivability at least targets intuition globally, but the examples of failure here only show that intuition is not a relation we can have to all objects.

Second, Peirce claims that there is no mark to distinguish intuitive cognitions from cognitions determined by other cognitions. But I find the request for some kind of mark problematic. Asking for a mark that separates intuitive cognitions from cognitions that are determined by other cognitions is stacking the deck against intuition. The very

idea of an intuition is an immediate relation to an object. Given that it is an immediate relation there will be no mark that mediates or determines the representation to be an intuition. Peirce might push the point: how does an intuition differ from a cognition determined by other cognitions if there is no mark by which to distinguish it? A possible response is to suggest that there is no mark except the state of being in immediate relation to an object. It is possible that such a state has no external mark to set it apart but is only knowable from the position of being in the relation itself.

Third, Peirce suggests that some feelings are learned and that this fact precludes the possibility of intuitive contact. But this is not the case. It is possible that intuitive contact with an object may be reached only after much investigation. Such investigation may involve the progressive penetration of an object over time. But because intuition is an immediate relation to an object does not mean that it is a relation that occurs on the first interaction with the object. Peirce seems to assume that an intuitive relation cannot be had if one has undergone a process of familiarization or learning. But this assumes that the process of learning is not a process of clearing away obstructions to intuitive contact. So, the fact of learning does not necessarily prevent the possibility of intuitive contact with an object.

2.2 Parsimony and the Conceptual Nature of Space and Time

Assuming Peirce's argument against the faculty of intuition and therefore forms of such a faculty to be in general successful one might consider dropping the matter completely. But in the above arguments no mention is made of Kant's specific claim that space and time are forms of intuition. And Peirce's argument lacks the force of

deductive validity being but a collection of examples meant to show that even if the faculty were in us we would not have the knowledge of its existence. Is there something distinctive about space or time, according to Kant, which bolsters his argument that they are not discursive concepts, or general concepts, but instead a special kind of representation? And if so, does Peirce have a response to such an argument? This is the topic of this section of chapter two. Below I examine some of Kant's claims about what makes space and time distinctive and also examine Peirce's account of how space and time can be accounted for without presupposing an intuitive faculty.

Kant makes the following claim about space in the Transcendental Aesthetic of *CPR*: Space is essentially single. Many spaces can only be thought of and understood as many parts of one and the same single space. Further, these spaces are not thought of as components that precede compositionally the single space but as only thinkable if thought in that single space.[98] Further, space is represented as an infinite magnitude, literally with an infinite number of parts thought simultaneously in it. But Kant thinks, even if a general concept contains an infinite set of representations that have that concept as their common mark it is not possible to think of the concept as having an infinite set of representations within itself simultaneously.[99] Kant doesn't offer his reasoning for thinking this impossible, but clearly if this is the case, then space cannot be a general concept. For Kant then two distinguishing features can be used to defend the idea that space is not a general concept even if Peirce has shown suitably that we cannot ever know that space is a form of intuition.

[98] Kant (1998, B39/A25).
[99] Kant (1998, A25/B40).

Peirce, in "Questions Concerning Certain Faculties Claimed for Man" deals specifically with why space need not be understood as a form of intuition and why it can be understood as a conception of the relations of things. Peirce's general conclusion is that space can be accounted for without presupposing the controversial faculty of intuition. His argument is the following: first Peirce establishes four physio-psychological facts. He then produces two experiments that result in the conclusion that space can be understood as a relation without appeal to its status as an intuition. But first, I offer one other consideration detrimental to Kant's claim that the uniqueness or singularity of space is an indication of its intuitiveness.

First, it is possible to distinguish the uniqueness of the conception of space from its being an immediate relation to its object that is its intuitional status. While the fact that space is thought of this way is interesting it is not in and of itself evidence of its intuitional status in the strong sense. Indexes are signs that stand for their objects by putting them in a factual or real relation with those objects. Yet indexes are not necessarily intuitions in the strong sense according to Peirce. This is because while they point to an object they convey no information about the object itself being nonconceptual. Examples of indexes are wind vanes or demonstrative pronouns. So, one answer to Kant's question of how space can be a representation of a single entity, and therefore not a general concept, is to acknowledge that there is room for other types of representations, or as Peirce calls them signs, than general concepts, or as Peirce calls them symbols. In Kant's philosophy there is only room for general concepts and intuitions. But in Peirce's semiotic theory the intuitions are eliminated and the

variety of types of conceptions greatly extended. This response simply acknowledges that even if intuitions are such in the weak sense that does not provide evidence of their intuitional status in the strong sense. That there are representations of individuals is not evidence that those representations contain content that is immediately related to objects. It may merely be that such representations point or direct awareness toward objects without offering any characterization at all of those objects themselves.

Earlier I distinguished between the strong sense of intuition and the weak sense. The singularity of space is no evidence of its immediate relation to objects, the strong sense of intuition, even if it is exactly what is required for being a singular representation. And this is what is being rejected by Peirce. So, while Peirce is willing to admit the status of singular representations, or intuitions in the weak sense, and in fact appears willing to interpret Kant's philosophy modified by substituting the weaker sense of intuition that Kant sometimes uses. Peirce never interprets indexes as providing anything like immediate relation to objects or a premise not itself a conclusion in the epistemological sense. And this is precisely what the strong sense of intuition requires.

Second, Peirce offers an argument by which spatial representation would arise without the presupposition of the faculty of intuition. The argument assumes the following four psycho-physical facts according to Peirce:

1. The excitation of a nerve does not inform the mind of the location of the nerve. Proof: if the nerve is moved it doesn't inform the mind of the movement.

2. A single sensation doesn't inform the mind of the number of nerve points excited.

3. The mind can distinguish between the impressions produced by the excitation of different nerve points.

4. The differences of impressions produced by different excitations of similar nerve points are similar.[100]

Peirce offers proof for only the first principle. The other three are left unsupported. Two and three are easily ascertainable by anyone at any time. Anyone can reflect on the fact that a single sensation does not report the number or nerve points excited. Nor is it hard to show that we can distinguish the different impressions made by the excitation of different nerve endings. But what of fact four? The wording itself makes understanding Peirce's claim difficult. In Peirce's second experiment he uses fact four and so provides some indication of the meaning. In the second experiment Peirce asks the reader to imagine an image moving over the retina. As the image passes over the nerve points the peculiar excitation it causes on some nerve points will later be caused on others, so that according to fact four, similar impressions will be produced. So, the meaning of fact four is embodied here. If different sets of nerve points in the retina are excited by similar images they will produce similar impressions. Now, we can examine Peirce's reasons for thinking that if these four psycho-physical facts are true, then space as a conception might arise without the introduction of intuition.

In the first experiment Peirce invites his reader to imagine a momentary image to be made upon the retina. By fact two which states that a sensation does not inform us of the number of nerve endings excited the impression made is potentially indistinguishable from one made by a single nerve ending. But, and this seems to be the

[100] Peirce (1992, 16).

crucial premise for Peirce's argument, "It is not conceivable that the momentary excitation of a single nerve should give the sensation of space." The conclusion that Peirce derives is the following: "Therefore, the momentary excitation of all the nerve points of the retina cannot, immediately or mediately, produce the sensation of space."[101] In order to work out the strength of the argument I will defend both the crucial premise and the inference from the premise to the conclusion that the excitation of no number of nerve endings could give us the sensation of space.

The crucial premise regarding the inconceivability of a single nerve ending giving the sensation of space is defended along the following lines: Space involves the idea of more than one point. A single point does not make possible the conception of space. But given that only one point of a nerve is excited no impression of more than one point could be formed. The conclusion follows because if no single nerve point is productive of the sensation of space than no combination of nerve points will in and of themselves produce the sensation of space. This argument shows us that sensibility alone as a faculty will not give the perception of space. But, if space were an intuition, if it were the form of intuitional representation, then it stands to reason that it would be the form of even a momentary image or an instance of external sensation. Yet, Peirce argues, it is not conceivable that a single momentary sensation could contain the sensation of space.

The next argument by Peirce shows that it is possible for the representation of space to arise from the effort to reduce the manifold of sensation to unity. In the

[101] Peirce (1992, 16).

second experiment we are to imagine the image moving over the retina. As the image excites one set of nerve points it will excite another similarly. The impressions formed by these different excitations will also be similar given fact four. By fact three, that the mind can distinguish between different impressions made by different nerve points, the mind will be able to distinguish between the different but similar impressions made by the different excitations of the image on the retina. The above, Peirce claims, represent conditions under which the conception of space might arise. Peirce draws on a law of mind that says the following:

> …when phenomena of an extreme complexity are presented, which yet would be reduced to *order* or mediate simplicity by the application of a certain conception, that conception sooner or later arises in application of those phenomena.[102]

The law of mind here given by Peirce is very similar to Kant's claim that the function of concepts is to reduce the manifold of sensation to unity. If the conditions are present simply assuming different impressions made by images on a retina for the conception of space to arise, then it is at least possible that the conception arises under those conditions without assuming it to be the form of a separate faculty of intuition.

Regarding Kant's claim that the singularity of the object of the conception space and the evidence it provides for its intuitive status Peirce shows that its singularity is not necessarily an indication of its intuitive status in the strong sense; that it does not seem possible for the perception of space to even arise given the matter of sensation; and that it is possible for the conception of space to arise without the introduction of the faculty of intuition. The arguments here provided deal specifically with space as a

[102] Peirce (1992, 16).

conception and not simply with the faculty of intuition. But what about Kant's second claim that space is by definition infinite in parts whereas a general concept may have an infinite set as its extension but cannot have an infinite number of representations as its parts. Kant claims that a concept may have infinite extension but may not have an infinite set of representations within itself. Now Peirce does not address this claim explicitly, but his other commitments regarding intuition in general and the implications of their absence from the account of experience that Peirce offers suggest also the position he would take on the question of the potential limitedness or unlimitedness of the set of representations, contemporarily thought of as the content of a concept, within any other given conception. Given that semantic theories of meaning are beyond the scope of this work I will only suggest the Peircean response. But my argument is that Kant's claim that concepts cannot have an infinite set of representations as its parts depends on a sort of conceptual atomism that is at least controversial.

For Peirce experience of objects is possible, and yet there are no such things as intuitions or immediate relations to objects in Kant's strong sense. What follows from this is what Peirce accepts, that every sign is determined by others, that is every cognition is determined by another cognition. Another way of stating the situation is that our relation to objects is irreparably or necessarily mediated by signs. There are no signs conceivable that are the last signs in the order of determination from object to sign. This does not mean that there are no objects. Included in the definition of a sign, as will be explored more thoroughly in chapter four, is the function of standing for an object; this is the sign's representational function. But, logically, between every sign and

its object may be conceived another sign that mediates the relation between that sign and its object.

The pragmatist theory of meaning articulated by Peirce is found most succinctly in his article "How to Make Our Ideas Clear":

> It appears, then, that the rule for attaining the third grade of clearness of apprehension is as follows: Consider what effects, which might conceivably have practical bearing, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.[103]

Thinking about the meaning of concepts through the pragmatist theory of meaning articulated by Peirce it is not implausible to say that the articulation of the possible effects of an object could in principle be infinite. That we take the meaning of concepts to be finished is more a matter of our not finding any usefulness in pursuing further the conceived effects that the objects of our concepts may have.

Now it is plausible to say that the meaning or content of a concept may not be infinite in the following sense—the meaning of a concept cannot include the meanings of contrary concepts such as the meaning of love being captured in concepts which fall under the category of its negation, not love. In that sense the sign's meaning is certainly not infinite. But, at the same time, the depth of meaning found within the sphere of the concept is not thereby any less infinite. For the determination of every sign found in the meaning of the concept will itself be found to be determined by another sign. Logically such determination ends in the object itself which the concept stands for. But the object itself will never be a representation of itself in the content of the concept. Relation to

[103] Peirce (1992, 132).

objects is always mediated by more signs and does not end in some sign which itself is determined by the object, an intuition. In this very real sense I think it is possible for the parts of a concept as Kant calls them to be infinite. The meanings of concepts are in principle infinite without thereby encompassing content that is regarded as a part of the content of that concept's negation or opposite. If this argument has force, and its force originates from the earlier arguments which show that we can have no knowledge of a faculty of intuition and do not need that faculty to be presupposed in order to account for the conceptions of time and space, then we may here be satisfied in our conclusion that there is no great disanalogy between the conception of space and general concepts. They are not disanalogous in the sense that one has infinite parts while the other does not. In fact just as what is not included in the conception of space, namely succession and simultaneity in time, does not prevent space from thereby having infinite parts so the fact that a general concept is limited in its own content in one sense does not prevent it from having an infinite number of representations that provide the depth of its content.

In regard to time Kant has very similar things to say. First, different times, like different spaces, are only parts of one and the same time. So, the conception of time is different from a general concept in that it only stands for one single individual. Second, time is unlimited as a representation.[104] But we have already seen above that there are conceptions that are not general concepts which have individuals as their object, but that these are not thereby determined to be intuitive in the strong sense. I have also

[104] Kant (1998, A31/B47-A32/B8).

argued that there are good reasons for accepting that the content or meaning of a concept may indeed be thought of as infinite so that the original unlimitedness of the representation of time is no indication of its intuitive status.

Peirce offers an argument to show that time is not intuitive which parallels his argument against the intuitive status of space.

> That the course of time should be immediately felt is obviously impossible. For, in that case there must be an element of this feeling at each instant. But in an instant there is no duration and hence no immediate feeling of duration. Hence, no one of these elementary feelings is an immediate feeling of duration; and hence the sum of all is not.[105]

That the basic elemental instances of time are not conceivable as being perceived as temporal indicates that no combination of instances of time could itself produce the perception of temporality. Hence, time is not intuitive. And again, the crux of the argument hinges on the idea that if time is intuitive, if it is the form of intuition in general, then any intuitive representation will contain time as an element. But, a single instant does not seem to contain either simultaneity or duration as an element. Those elements only seem to arise in relation to other instances.

Peirce also thinks that his argument regarding the possibility of the conception of space arising from the necessity of unifying the manifold of sensation applies to time as well.

> On the other hand, the impressions of any moment are very complicated, --containing all the images (or the elements of the images) of sense and memory, which complexity is reducible to mediate simplicity by means of the conception of time.[106]

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[105] Peirce (1992, 17).
[106] Peirce (1992, 17).

Just as with the argument against the intuitive nature of space Peirce finds it inconceivable that time could be in the basic elements of sensation and therefore won't be a feature of any combination of those elements. This leaves open the very real option that time is a conception introduced for the reason that all conceptions are introduced: to reduce the manifold of sensation to unity.

The conclusion that Peirce here draws may sound a worrisome one to those who accept, like Kant has, that temporality and spatiality are necessary intuitive elements of experience. Given Peirce's arguments above it does not seem like the necessary intuitive status of space and time can stand. But there is no reason to think that reality, the ultimate object, lacks either temporality or spatiality. Clearly the concepts have become so ingrained in our human psychology that they appear necessary, but whether they are or not is not knowable except at the end of inquiry. For Peirce the ultimate opinion which is destined as that representation of reality which is preserved may very well include the aspects of temporality and spatiality. In fact, for Peirce, the very psychological impossibility we have in imagining their absence should be evidence of the lasting relevance of that way of representing what is real.[107] But there is a worry which Peirce began to recognize as he developed his theory of abduction. The fact that a conception explains another set of facts does not thereby guarantee that it is the true explanation. So, even if the conceptions of space and time arise as explanations of sensory manifold, this does not make them necessary or reflective of the nature of reality.

[107] Peirce (1992, 180).

2.3 On the Inconceivability of Intuition

Now we have been interpreting Kant's use of the term intuition in what I will call "the strong sense". That sense is the sense in which intuition is a separate faculty from the understanding which produces a special representation which is in immediate relation to its object. The immediacy of this relation is usually interpreted in the strong sense: thought has as its end intuition. And, intuition is safely or securely related to objects themselves. Two lines of reasoning have been articulated thus far: first, there is no intuitive knowledge of the distinction between intuition and cognitions determined by other cognitions. So, if there were cognitions that were intuitive we would not know that they were lacking as we do the faculty that would be necessary for distinguishing them from cognitions determined by other cognitions. Second, I have argued in line with Peirce's general view that the special features of the representations of time and space is no guarantee of their status as intuitions in the strong sense. And further, I have presented Peirce's arguments for thinking that space and time specifically could not be the form of intution through his claim that it is inconceivable that either is an element of an instance or moment of sensation. Last, Peirce offers the suggestion that space and time can be accounted for by considering their role in reducing the manifold of sensation to unity. This is the task of the understanding and it is plausible to Peirce that these conceptions arose through that role of understanding and not through a special intuitive faculty. Next, I look at a third strategy for arguing against intuition. Peirce argues that the very idea of an inuition in the strong sense is itself problematic. To put it

in Peirce's own way of putting things we do not even know what we mean by intuition. It is inconceivable.

Here is the passage where Peirce makes the claim that the very idea of intuition is inconceivable:

> So, that to suppose that a cognition is determined solely by something absolutely external, is to suppose its determinations incapable of explanation. Now, this is a hypothesis which is warranted under no circumstances, inasmuch as the only possible justification for a hypothesis is that it explains the facts, and to say that they are explained and at the same time to suppose them inexplicable is self contradictory.[108]

So, supposedly, says Peirce, there is a contradiction in the idea of an intuition. The contradiction is that one must claim both that an intuition's determination is understandable or explainable but also that an intuition's determination is not understandable or unexplainable. The problem of course arises because of the peculiar nature of the determinative source of intuitions, namely something that cannot ever itself be cognized. Another way of expressing the point is to say that the meaning of intuition is meaningless for here determination by the object means determination by something that is in principle incognizable. And Peirce's point doesn't seem to hinge so much on the phrase "determined immediately by the object" as much as the fact that Kant means by "object" something absolutely external that never enters into experience or is cognized. The incognizable Peirce says is inconceivable. To say then that something *is* is to say that it is determined by other cognitions. There simply is nothing that we can conceive of that would fit the meaning of intuition in the strong sense.

[108] Peirce (1992, 25).

Peirce addresses the following criticism:

> It would seem that there is or has been [intuition]; for since we are in possession of cognitions, which are all determined by previous ones, and these by cognitions earlier still, there must have been a *first* in this series or else our state of cognition at any time is completely determined, according to logical laws, by our state at any previous time.[109]

Peirce claims to be in no greater difficulty here than Achilles who races the tortoise in Zeno's famous paradox. While it may be difficult to express how Achilles overcomes the tortoise we know that he does. We could deny the determination of cognitions as easily as denying that there is motion. But, the fact that Achilles must take an infinite number of steps does not prevent us from believing in motion. Similarly, the fact that every cognition is determined by a prior cognition which implies that there are an infinite number of cognitions between any present cognition and its object should not lead us to the conclusion that cognitions are not determined. Nor should it lead us to the other alternative conclusions either that there is a *first* cognition called an intuition or that there is no determination of cognitions at all. The position Peirce maintains is that every cognition is determined, and every cognition is determined by a prior cognition of the same object. There simply is no way to make sense of the strong version of intuition found in the *Critique of Pure Reason*.

Peirce complains that the idea of an intuition leads to the determination of such a representation being unexplainable. But it seems to me that the determination is rendered unexplainable only if one assumes that there is no such thing as intuition. If one allows for the possibility of intuition, then it is possible that a representation will be

[109] Peirce (1992, 25).

determined by the object itself since intuition is a representation determined by the object. Peirce claims that this makes for determination by the incognizable. But if intuition is possible then there is no clean break between that which is outside of consciousness and that which is or can be in consiousness. Intuition represents a penetration of cognition into the object itself.

The main problem that I find in Peirce's argument is that his reasoning appears suspiciously circular. If I want to prove that intuition is impossible or incomprehensible it will not do for me to use premises which assume that incomprehensibility. And, the only way that Peirce can claim that intuition leads to determination by the unexplainable is to assume that intuitive contact is unexplainable. But I see nothing in the idea of intuition that is clearly incomprehensible in the logical sense.

These arguments against intuition certainly represent the strongest break that Peirce makes from the Kantian theory of the necessary elements of experience. Peirce's outright rejection of intuition, and so of the forms of intuition, is without doubt one of the early attempts to preserve an account of the possibility of experience while avoiding any foundational epistemological relations to objects themselves through intuition. In the next chapter I examine Peirce's account of the categories. Peirce offers two distinct methods for deriving the categories one of which is very similar to Kant's, but which Peirce later leaves behind for a different method of deriving the categories. It will be one of my contentions that Peirce, in his phenomenological method of deriving the categories trespasses against this earlier rejection of intuition. This tension that arises

shows just how difficult it is for a theory of experience to provide an account of cognition of objects while rejecting the idea of intellectual intuition or rational insight.

Chapter 3: Peirce's Discovery of the Categories

Here I examine both of Peirce's derivations of the categories and assess the strength of each. The first derivation appears in one of Peirce's earliest and most famous papers *On a New List of Categories* (1868). The derivation stems from an account of judgment and in a very straightforward sense is modeled after Kant's famous derivation in the *Critique of Pure Reason.* The second derivation appears much later in Peirce's career and stems from lectures he gave at Harvard in 1903 as well as other unpublished writings. I am interested in how Peirce augmented his method of discovery and whether the newer and later method represents a fruitful development on the earlier Kantian strategy.

3.1 The Early Neo-Kantian Derivation

Peirce's derivation of the categories is premised on the same basic commitment as that of Kant: concepts serve the function of reducing the manifold of sensory input to unity. Peirce claims secondly that this commitment to the function of conceptions gives rise to a conception of gradation among universal conceptions as each type of conception brings greater and greater unity. The unity that the sensory manifold is reduced to is the unity of a proposition (in Kant's terminology a judgment).

The method that is established for the derivation of the basic concepts or categories is that of prescision. This is a kind of distinguishing or separating that arises

from *"attention to* one element and *neglect of* the other."[110] Peirce goes on to say the following about what he means by attention and offers examples: "Exclusive attention consists in a definite conception or *supposition* of one part of an object, without any supposition of the other."[111] As examples Peirce offers the following: "I can prescind red from blue, and space from color (as is manifest from the fact that I actually believe there is an uncolored space between my face and the wall); but I cannot prescind color from space, nor red from color."[112]

This method of prescision is distinguished from two other forms of mental separation. Discrimination Peirce says deals only with the essences of terms. So I can discriminate color from space even though I cannot prescind color from space, but I cannot discriminate red from color because the very meaning of red involves the concept of color. Alternatively, dissociation is that separation allowed by the "law of association of images". I cannot dissociate color from space even though I can prescind and discriminate color from space, and I cannot disassociate red from color.

Peirce does not in great detail justify why prescision is the proper type of separation for determining the basic categories or elements necessary for the unity of the proposition. Dissociation is inapplicable in this case because it relates to psychological or imaginative limitations in separation, and we are not interested in what can or cannot be separated psychologically. Discrimination, or separation by the meanings of terms is also inapplicable, because it regulates analysis through separation

[110] Peirce (1992, 2).
[111] Peirce (1992, 2).
[112] Peirce (1992, 3).

by essential content alone. Prescision however allows for dependency relations to be discovered that are neither straight-forwardly psychological nor straightforwardly analytic. I am struck by the apparent similarity between Kant's discovery of apriori-synthetic propositions as a middle-ground between empirical propositions and tautological propositions. Here Peirce seems to be doing what we might call a use of Reason beyond either empirical or logical justification. The method allows for a discovery of dependency relations between conceptions that would not be discoverable by any other method. But the method is not new. Peirce simply takes a well-known form of separation and uses it explicitly in his early derivation of the categories.

In his dictionary definition of precision provided for Baldwin's *Dictionary of Philosophy and Psychology* Peirce cites Scotus as the source of the meaning of precision used by logicians:

> Its earlier meaning, still more or less used by logicians, is derived from a meaning given to *praecisio* by Scotus and other scholastics: the act of supposing (whether with consciousness of fiction or not) something about one element of a percept, upon which the thought dwells, without paying any regard to other elements.[113]

And further Peirce says,

> Now empirical psychology discovers the occasion of the introduction of a conception, and we have only to ascertain what conception already lies in the data which is united to that of substance by the first conception [being], but which cannot be supposed without this first conception, to have the next conception in order in passing from being to substance.[114]

The object in Peirce's case is experience, a basic unit of which is found in the form of a synthetic proposition. In searching out the elementary conceptions which are necessary

[113] Baldwin (1902, 323).
[114] Peirce (1992, 3).

for the formation of a synthetic proposition we need to be able to discover what must be supposed conceptually and independently of other elements that contribute to the formation of the proposition.

Prescision, then allows for a type of analysis which will show dependency relations between elements. The example that Peirce uses of color and space is instructive. The fact that I can prescind space from color but not color from space shows us that while color presupposes, necessarily, space, space does not presuppose color. If we then use this type of separation to pursue the basic elements of experience a hierarchy may be formed so that the elements may be organized through relations of dependency.

Kant, it may be noted, uses a similar form of separation when he states that time is presupposed by experience. Without prescision there would be no way for us to know apriori anything beyond the tautological and vacuous truths where the content of the subject concept is made explicit in the concept of the predicate. It was one of Kant's great achievements to recognize that apriori, and so necessary, truths are not limited to analytic statements. The apriori synthetic statement is precisely an example of a relation of necessity established between two elements without one of those elements being contained in the idea of the other. Kant offers many examples including "5+7=12" and "Every change requires a cause". The Transcendental Aesthetic and Transcendental Analytic is intended to provide the element and structure that would justify such apriori synthetic statements. What is interesting about Peirce's account though is that he does not think it necessary to provide a presuppositional structure to justify the truth of

these claims. For Peirce perceiving that color presupposes space is an ability we have period. But he does not seem interested in pursuing what enables us to perceive the necessary relation between color and space. Other examples include the following: "Moral values presuppose personhood", "Guilt presupposes responsibility", "Willing requires thinking", "Hope requires knowledge", and even "orange lies between red and yellow."[115] The necessary nature of such relations cannot be established through experience but neither in any of the above cases is the predicate contained in the concept of the subject. We owe Kant the fundamental articulation of the insight into the reality of synthetic apriori propositions. Peirce here articulates a kind of mental separation that involves a type of perception or attention, and that is necessary for establishing the hierarchically organized fundamental categories. Knowledge can be prescinded from hope, but hope cannot be prescinded from knowledge. There is no way for one to hope in something without knowing what it is one is hoping for. But the very meaning of hope in its essence does not conceptually involve knowledge: so for the other examples.

While Kant thinks of *a priori* synthetic principles as justified by the nature of experience and so limited by what follows from the presuppositions of experience Peirce treats perceiving the necessity as a capacity independent of its being derivable from some *a priori* structure. Such a perceptive capacity as Peirce describes would require one to be able to note the essential natures of each object in the relation in order to judge the hierarchical relation between them as being necessary. But Peirce

[115] Von Hildebrand (1991), particularly chapter four.

describes three different types of necessity: psychological, tautological, and preciscive. He does not answer what exactly allows one to distinguish between those different types of necessity. I suggest that it must be an intellectual and intuitive faculty.

The investigation then of the fundamental categories of the understanding is the question of what conceptual elements must be presupposed for the transition from substance to being. Peirce conceives substance as the conception of the present in general. It has no proper unity though since it has no connotation. It refers to anything that may come before the attention. Being is the conception that provides the unity of the proposition. A proposition may not be formed without the supposition of being. But being itself has no content since there is no preconceived common character of all things. The fundamental categories lie in between the conception of the present in general, substance, and the unity of the proposition, being. By looking into what is required for the unity of being in the proposition Peirce uses prescision to establish the hierarchy of the elementary conceptions so that the apriori elements of experience are established and systematically organized.

Since a proposition in its basic form expresses the unity of the subject and predicate the first conception in moving from being to substance is that of quality. Quality, Peirce says, is the concept of a reference to a ground. A ground is that which justifies the bringing together of the subject and predicate in being. His reasoning is as follows: Any proposition claims that a more mediate conception, the predicate, is applicable to a more immediate conception, the subject. In order for this to be so the two conceptions must agree in some respect. A respect in this sense is a pure

abstraction the reference to which provides the ground or justification for the assertion made in the proposition that the more mediate conception is applicable to the more immediate.

Peirce's famous example is "This stove is black". In order for the unity asserted here to be possible blackness must be understood independently of its use in the proposition. In order for "blackness" to be asserted to be applicable to "the stove" it must be considered independently. The quality blackness, which the predicate stands for, is "a species of pure abstraction".[116] The conception of a pure abstraction, in this case "blackness", is as Peirce says indispensable "because we cannot comprehend the agreement of two things, except as an agreement in some *respect*, and this respect is such a pure abstraction…"[117] The agreement is between the subject and predicate and it is made possible by an immediate grasping of the quality which functionally is a referring to a ground for the assertion itself. This emphasis on deriving the categories, as concepts of functions of judgment, is straightforwardly a continuation of the Kantian project.

About this immediate grasping of the quality Peirce says very little. He simply says, "The mediate conception, then in order to be *asserted* to be applicable to the other, must first be considered without regard to this circumstance, and taken immediately. But, taken immediately, it transcends what is given…"[118] How well would such a conception, that of taking immediately, fit with Peirce's rejection of intuition.

[116] Peirce (1992, 4).
[117] Peirce (1992, 4).
[118] Peirce (1992, 4).

What does it mean to grasp an abstraction, that which is common to many instances involving some character? Again, Peirce does not analyze this at all. I note it since my attention is focused on the plausibility of a constructivist theory of experience devoid, as Peirce's theory is, of any notion of intuition.

Quality, or reference to a ground, then is the first conception encountered when moving from being to substance. Just as I cannot prescind color from space I cannot prescind reference to a ground, or quality, from being, even if being can be attended to independently of quality.

The second conception in moving from being to substance is reference to a correlate, or relation. Here Peirce is particularly brief and it will help to appeal to earlier drafts of *On a New List of Categories* for interpretive support. In the published draft Peirce enlists the findings of empirical psychology to support the claim that a quality cannot be known except through contrast and similarity with others.

> Empirical psychology has established the fact that we can know a quality only by means of its contrast with or similarity to another. By contrast and agreement a thing is referred to a correlate, if this term may be used in a wider sense than usual. The occasion of the introduction of the reference to a ground is the reference to a correlate…[119]

But this seems clearly problematic. Peirce even notes a worry about his justification of the conception of quality in manuscript 785.[120] The worry is that the findings of empirical psychology, because by nature open to falsification through later investigation, cannot be the source of am *a priori* concept much less a category. In draft

[119] Peire (1992, 5).

[120] This has been noted helpfully in Peirce (1992, Note 2 of *On a New List of Categories*).

1 of *On a New List of Categories* Peirce derives the category of a relation, or reference to a correlate, in the following way:

> *Ground* itself is not given in the impression of sense, but is the result of generalization. Now generalization is of related things; so that the function of the conception of a ground or character is to unite relate and correlate; it is justified therefore by the fact that without it reference to a correlate is unintelligible. I hold that that which immediately justifies an abstraction is the next highest element of cognition.[121]

Peirce's claim that qualities only serve the function of uniting related things is central to his derivation of the second category. Reference to a ground, or quality, is necessary for the unity of the subject and predicate in a proposition. Qualities themselves are only necessary because we encounter a manifold in sensory input that must be compared and contrasted. Were there not different things with similarities and differences there would be no need for qualities. So, the occasion, as Peirce calls it, of reference to a ground, or quality, is reference to a correlate. Reference to a correlate is reference to another thing that is compared with a relate in order for generalization to occur.

Christopher Hookway summarizes the point in the following way which is most helpful:

> When we say that reference to a correlate provides the *occasion* of reference to a quality or ground, the picture that is suggested is that we, as it were, find ourselves making judgments of similarity and difference and only require the concepts of qualities in order to make sense of the similarities and differences that we notice. The concept of black is introduced as a part of a hypothesis to explain the similarities we notice among black things.[122]

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[121] Murphey (1993, 411).
[122] Hookway (1992: 93).

Peirce later gives the name of relation to the activity of referencing a correlate. Reference to a correlate may not be prescinded from reference to a ground because it is only through the quality that similarities and differences between objects can be explained. But reference to a ground may be prescinded from reference to a correlate as is proved through the prior analysis. We did not need to give our attention to reference to a correlate in order to attend to quality or reference to a ground.

Peirce affirms this interpretation in the following claim later in the *New List*:

> In a proposition, the term which separately indicates the object of the symbol is termed the subject, and that which indicates the ground is termed the predicate. The objects indicated by the subject (which are always potentially a plurality, --- at least, of phases or appearances) are therefore stated by the proposition to be related to one another on the ground of the character indicated by the predicate.[123]

The terms relate and correlate may refer then to a plurality of objects either different appearances of the same object as that object is encountered continually in the act of attention, or to objects experienced in different times. Because we encounter in attending to the manifold of sensory input things that are similar or different the occasion for reference to a ground is found. Reference to a ground leads to the unity of being. Reference to a ground is prescindable from reference to a correlate since it may be considered independently from reference to a correlate. But we may not prescind reference to a correlate from reference to a ground since without reference to a ground reference to a correlate is unintelligible.

The last category necessary for the transition from substance to being, or from the manifold of sensory input to the unity of the proposition is the interpretant. Peirce

[123] Peirce (1992, 9).

continues his analysis by asking what makes possible reference to a correlate. "The occasion of reference to a correlate is obviously by comparison."[124] An act of comparison produces a mediating representation which shows the relate to be related to the correlate in the way thought. Peirce puts the idea in a dense but effective way:

> By a further accumulation of instances, it would be found that every comparison requires, besides the related thing, the ground, and the correlate, also a *mediating representation which represents the relate to be a representation of the same correlate which this mediating representation itself represents.* Such a mediating representation may be termed an *interpretant*, because it fulfils the office of an interpreter, who says that a foreigner says the same thing which he himself says.[125]

Peirce offers three examples in order to explain what he means by an interpretant:

First,

> Suppose we wish to compare the letters p and b. We may imagine one of them to be turned over on the line of writing as an axis, then laid upon the other, and finally to become transparent so that the other can be seen through it. In this way we shall form a new image which mediates between the images of the two letters, inasmuch as it represents one of them to be (when turned over) the likeness of the other.

This conception is the conception which makes reference to a correlate possible. If I take p to be my relate, and b to be my correlate, that is only possible because of the act of turning over the one and laying it upon the other. Without that act there could be no reference to a correlate. Reference to a correlate is reference to something else which may be related to the relate. The interpretant is the representation which shows the one to be related to the other. Without reference to an interpretant reference to a correlate is not possible. Second,

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[124] Peirce (1992, 5).
[125] Peirce (1992, 5).

> Again, suppose we think of a murderer as being in relation to a murdered person; in this case we conceive the act of the murder, and in this conception it is represented that corresponding to every murderer (as well as to every murder) there is a murdered person; and thus we resort again to a mediating representation which represents the relate as standing for a correlate with which the mediating representation is itself in relation.

In this case the interpretant is the act of murder which provides the basis on which the relation between murderer and murdered is based. It is what makes possible the relation between murderer and murdered. Third,

> Again, suppose we look out the word *homme* in a French dictionary; we shall find opposite to it the word *man*, which, so placed, represents *homme* as representing the same two-legged creature which *man* itself represents.[126]

In each case, and in distinctly different ways the mediating representation makes the comparison complete. There can be no unity in a proposition unless there is a reference to a ground or a quality. There can be no quality if there is no reference to a correlate or relation. And there can be no relation unless there is a representation which does the work of providing the way the relate and correlate are related. In the first case the image of the one letter transposed on the line of axis and laid upon the other makes the relation between the two objects possible. In the second case the act of murder is the representation which provides the relation between murderer and murdered, and in the third case the English term man acts as a mediating representation between the French term homme and the two-legged creature which the term man represents. In each case it is the interpretant which makes evident the relation between relate and correlate. So,

[126] Peirce (1992, 5).

Peirce names the category which is the conception of a reference to an interpretant representation.

As Peirce has moved from the unity of the proposition to the manifold of sensory impressions he has in each case inferred in a hierarchical manner what each category presupposes. Reference to a correlate is prescindable from reference to an interpretant, but reference to an interpretant is not prescindable from reference to a correlate. And, Peirce claims to have reached the last conception on the way from the unity of the proposition to the manifold of sensory impressions, because it is the manifold itself which makes necessary reference to an interpretant. Were there no confusion, nothing requiring being reduced to unity, there would be no need for comparison and so no conception of reference to an interpretant would arise.

Each category is derived, as were Kant's, from a function that is required for the unity of a judgment which is found in the form of a proposition. The functions themselves are reference to a ground, reference to a correlate, and reference to an interpretant. Each category is the sameness or unity of all of the acts which are of the kind described. Peirce later will use the names of Firstness, Secondness, and Thirdness to refer to the three categories instead of Quality, Relation, and Interpretant. But even as early as the *New List* Peirce introduces such terminology:

> The passage from the many to the one is numerical. The conception of a *third* is that of an object which is so related to two others, that one of these must be related to the other in the same way in which the third is related to that other. Now this coincides with the conception of an interpretant. An *other* is plainly equivalent to a *correlate.* The conception

> of second of second differs from that of other, in implying the possibility of a third.[127]

The ground is then, although not in this passage, associated with the idea of a first: hence the category of Firstness. The articulation of these categories Peirce later considered his one great achievement in philosophy.[128]

The account of the unity of a proposition is therefore complete according to Peirce. Working back in the other direction we can see that the confusion presented in the manifold of sensory matter provides the need for comparison. The function of comparison is to bring about a relation between two things, relate and correlate. Establishing a relation between relate and correlate provides the means for the abstraction of a quality. Such quality is then the ground of the joining of a predicate and subject in the proposition.

Three things might be noted that distinguish Peirce's early derivation of the categories in Kantian fashion from the derivation that Kant makes. First, Kant takes the commonly understood classical metaphysical conceptions, conceptions already familiar in his day, and provides a new and systematic account of their necessity for experience. Peirce however derives conceptions that are wholly new or at least so general that they do not fit any prenamed categorical terms. This does not mean that the classical metaphysical conceptions that Kant unites in his categorical system are not necessary for experience, or are not *a priori* necessary. It is simply possible that they are derivative of some more primary *a priori* categories.

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[127] Peirce (1992: 6).
[128] Peirce (8:213).

Second, Kant's list is a list of concepts of functions that are within the form of judgment but not all of which are necessary for any single judgment. For instance, one does not need both categorical and hypothetical functions in order to complete a single judgment? But given that Kant's table of categories are not each necessary in a single completed judgment we might ask whether there are functions that unite each of the different kinds of judgment that could be completed with Kant's categories? It seems there should be a more general account of judgment that unites the different types of judgments that can be completed using functions from Kant's table. But Kant does not pursue such an account. The worry though is a lack of unity in the account. On the other hand Peirce's derivation offers categories which would be necessary for any type of judgment. To my mind Peirce derives his functions from a more general account of judgment than Kant did.

The last difference that I note is the hierarchical structure that Peirce is able to generate in his categorical system which provides an extra level of systematicity in comparison to Kant's categorical system. Within Kant's table of the categories no one category appears to have hierarchical precedence over any of the others. They are all derived from the function of judgments, but since the functions of judgments in Peirce's derivation are prescinded from the unity of the proposition the categories not only have apriori and necessary status from the account of the functions of judgment but they are related in a necessary structure amongst themselves.

Peirce however did not rest finally with this derivation. For reasons that will be mentioned below Peirce considered the derivation of the categories presented in the

New List as being only partially correct and in need of revision. Since Peirce's later method of discovery supersedes this early derivation I will look more closely at the categories derived in that fashion. But we can predict, that given Peirce's initial strategy of derivation is similar to Kant's that similar worries will emerge. The primary worry is that no proof can be given that the apriori concepts of the understanding are indeed also the categories of reality. To the reasons for Peirce's dissatisfaction with this initial derivation of the categories I now turn.

3.2 Reasons to Revise the Derivation of the Categories

Those commenting on the historical development of Peirce's philosophy have cited two main contributing factors to Peirce's needing to attempt a new method for discovering the categories.[129] Peirce's research into both the classification of the sciences and his work in the logic of relatives specifically have been cited as contributing factors to Peirce's revised method for discovering the categories.

Hausman says the following:

> We should expect that Peirce sees the need to look beyond the analysis in the "New List," because its scope is confined to the conditions of the proposition. Thus, the list is not obviously extended to all experience, or to all aspects of what makes experience in all its dimensions intelligible…However, Peirce's first step in moving toward his developed phenomenological theory of the categories is made through a broadening of his conception of logic.[130]

[129] Hookway (1992), Hausman (1993), and Murphey (1993) are particularly helpful in this regard.
[130] Hausman (1993, 109).

The logical considerations that Peirce began to consider represented a moving away from the subject-predicate theory of the proposition.[131] The catalyst for this move was Peirce's introduction to De Morgan's logic of relations. Peirce was introduced to this logic early in his career, even at the time of the writing of the *New List* but it would be a matter of decades before Peirce's own conclusions about the logic of relations reached anything like final conclusions.[132]

The main conclusion that Peirce reached was that predicates were of three indecomposable kinds each identified by its being related to one, two, or three subjects. "The stove is black" is an instance of the first. "Sam is the father of Susy" is an instance of the second. And, "Bob gives grief to Mary" is an instance of the third. Modern logic has accepted this view of predication except that Peirce made an even more radical claim: predicate relations to one, two, or three subjects are necessary, but no larger relations are necessary. In other words, any larger predicate relations may be reduced to predicate relations of three or fewer. This is known as Peirce's "reduction thesis" and has received some careful attention but with no final confirmation of its validity.

Hookway examines the mathematical proof that Peirce developed for his reduction thesis but claims that although promising the proof may be it seems that Peirce moved on and considered his phenomenological discovery of more primary importance.[133] It may be that the volatility of changes in logic at the time, as well as Peirce's own dissatisfaction with the validity of the proof of his reduction thesis led to

[131] Murphey (1993, 298).
[132]Hausman (1993, 109).
[133] Hookway (1985, 97-101).

his seeking a different method for discovering the categories. I will not pursue the proof here in any detail as it would take us too far afield from our present concerns. I am interested only in reasons for why Peirce was motivated to look for a phenomenological proof of the categories.[134]

The second reason that Peirce took seriously the need for a revision of his discovery of the categories is his is research into the overall structure and relation of the sciences otherwise known as the classification of the sciences. As early as 1898 Peirce hinted at a classification of the sciences in his Cambridge Lectures, specifically "Philosophy and the Conduct of Life." But the unpublished "An Outline of the Classification of the Sciences" from 1903 represents a fuller and more complete classification. For Peirce mathematics in its most fundamental and abstract sense represents the first science in that it studies "what is and what is not logically possible, without making itself responsible for its actual existence."[135] Philosophy is next in order and is made up of phenomenology, normative science, and last metaphysics. After philosophy comes idioscopy which embraces all the special sciences concerned with the accumulation of new facts.

Peirce defines phenomenology in the following way:

> Phenomenology ascertains and studies the kinds of elements universally present in the phenomenon; meaning by the *phenomenon*, whatever is present at any time to the mind in any way.[136]

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[134] H.G. Herzberger's "Peirce's Remarkable theorem" is a useful place to begin looking at the validity of Peirce's theorem. It may be found in *Pragmatism and Purpose*, edited by Sumner, L. W., Slater, J. G. and Wilson, F., Toronto: University of Toronto Press, 1981.
[135] Peirce (1998, 259).
[136] Peirce (1998, 259).

Since phenomenology is the science that Peirce depends on for his derivation of the categories we will look more closely at its method of discovery shortly. Here I want to merely establish the relation of mathematics, phenomenology, and logic in order to show why Peirce eventually moved away from a logical derivation of the categories.

Normative science, Peirce says,

> distinguishes what ought to be from what ought not to be, and makes many other divisions and arrangements subservient to its primary dualistic distinction.[137]

Normative science depends on mathematics and phenomenology. Normative science is further divided into esthetics, ethics, and logic. Esthetics is defined by Peirce as the science of ideals, or "of that which is objectively admirable without any ulterior reason." Ethics is the science of right and wrong, is dependent on esthetics, and represents "the theory of self-controlled, or deliberate conduct." Logic finally is defined by Peirce in the following way:

> the theory of self-controlled, or deliberate, thought; and as such must appeal to ethics for its principles. It also depends upon phenomenology and upon mathematics. All thought being performed by means of signs, Logic may be regarded as the science of the general laws of signs.[138]

We can end here with logic and see that as Peirce developed a hierarchical structure of the sciences based on the relations of dependency they had to one another the science of logic falls well within the classification depending in some sense on the findings of more fundamental inquiries which precede it. One can see why Peirce sought for a mathematical proof of his reduction thesis for the logic of relations. And, failing that,

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[137] Peirce (1998, 259).
[138] Peirce (1998, 260).

one can see why he then pursued a phenomenological approach. A logical derivation of the categories only supports the universality of the categories for everything that follows from them, namely metaphysics and the special sciences of discovery. In order to make them apply universally Peirce moved to the more fundamental science of phenomenology which considers anything that in any way may come before the mind. This interpretation is confirmed by both Hausman and Murphey.[139] Murphey says:

> Since logic is only one of the normative sciences, and since the divisions of the normative science are themselves obviously based on the categories, it is clear that Peirce can no longer rest his theory of the categories on logic. Peirce's solution to this problem is the introduction of a new science which he called "phenomenology" or "phaneroscopy," and which stands between mathematics and normative sciences. The sole function of this new science is to provide the basis for the categories. (1.280)[140]

We can turn our attention now to the science of phenomenology and to Peirce's phenomenological derivation of the categories. But before we do I report one further reason for thinking the derivation of the categories had to be revised which ties directly to Peirce's rejection of intuition that has been discussed in chapter two.

> The connection was made by Murphey in the following statement:
>
> By denying the existence of first impressions of sense Peirce had completely sundered the real from perception, so that direct acquaintance with reality cannot be gained by going to the source of our cognitions.[141]

This is a perceptive insight on Murphey's part and deserves to be considered along side the other reasons that have been offered thus far. Murphey's claim is that by rejecting

[139] Hausman (1993, 114).
[140] Murphey (1993, 367).
[141] Murphey (1993, 301).

intuition, by rejecting any immediate contact with objects, the source of our cognitions is therefore cut off from objects, and a derivation from the source of cognition can no longer be trusted to deliver categories of objects in general. This is an important implication of Peirce's early rejection of intuition. The *New List* in which the categories are logically derived precedes the later rejection of intuition. There is no doubt that a kind of solipsism began to emerge in Peirce's cognition series in *The Journal of Speculative Philosophy* of which "Questions Concerning Certain Faculties Claimed for Man" is a member. "From the proposition that every thought is a sign, it follows that every thought must address itself to some other, must determine some other, since that is the essence of a sign."[142] The infinite regress that loomed certainly prevents one from ever reaching the object through signs.

Peirce initially placed the grounding of contact with reality in the long-run future convergence of a community of inquirers. But this logical hope as Peirce calls it is a shaky foundation for a philosophical account of experience. There is obviously no guarantee and I think Peirce began to sense the full force of his early anti-foundationalist leanings in his early cognition articles. I don't think that Peirce ever fully resolved this issue in his work. But what we can see is that he changed his commitment to anti-foundationalism in some way which will be explored below in his second derivation of the categories. In that later derivation the justification of the categories is a matter of what we can know now through a phenomenological discovery. And it is not a matter of looking *inside* at an account of our form of judgment, but of an encounter

[142] Peirce (1992, 24).

with the *outside* by-passing, if successful, the earlier worry about the categorical status of the *a priori* concepts derived from the functions of judgment.

3.3 Peirce's Phenomenological Discovery of the Categories

Peirce named the science by which the categories can be discovered phaneroscopy. He says, "Phaneroscopy is the description of the phaneron; and by the phaneron I mean the collective total of all that is in any way or in any sense present to the mind, quite regardless of whether it corresponds to any real thing or not."[143] But Peirce has a more specific task for Phaneroscopy: it seeks to describe the phaneron insofar as there are formal elements that can be identified. Since there is nothing that is quite so immediately available to observation as the phaneron it remains to describe a method for discovering formal elements.[144] The goal of this investigation is to discover the categories as they are given in the phaneron as opposed to through a logical derivation for reasons discussed above.

Peircean scholars have disagreed about the nature of this science. For instance both Hookway (1985) and Hausman (1993) claim that Peirce seeks an empirical grounding for the categories. This seems to me a mistake. Hausman says, "phenomenology constitutes a systematic way to develop Peirce's categories empirically".[145] Now much of what Hausman says about the phenomenological

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[143] Peirce (1.284).

[144] Feibleman (1940) and De Tienne (1993) are both excellent introductions to the idea of a phaneron. They also both affirm that for Peirce "phaneroscopy" is a technical term Peirce developed for his own version of "phenomenology." When discussing Peirce's philosophy, and because he uses both terms in writing about the same subject, phenomenology and phaneroscopy are interchangeable.

[145] Hausman (1993, 114).

derivation is not affected by this characterization, but it remains problematic for several reasons. An empirical derivation of the categories would by no means place them on a more solid foundation than the logical derivation from the "New List" had done. Since empirical investigation, observation and induction, can deliver no essential necessity the categories would have remained merely empirically valid and could have provided no foundation for empirical investigation itself. The need to characterize Peirce's effort here is real; "Empirical" simply won't do.

Hookway is less sure of how to characterize Peirce's phenomenological method. He says, "Peirce moves towards what we can think of as an inductive confirmation" and later:

> Peirce is looking for an experiential vindication of the categories, but the experience must inform us, not just of the character of reality, but of the character of all that can be imagined, conceived, or invented. Hence it does not involve ordinary induction.[146]

Hookway is right, I think, that Peirce is looking for an experiential vindication of the categories, but he does not invest analysis in differentiating between this new and different notion of experience. Peirce, like others who worked in the post-Kantian environment of German philosophy in the nineteenth and early twentieth century, found himself turning to a type of phenomenology, and phenomenological insight to aid in his account of experience.[147] It will be my contention that Peirce here indeed represents a strain of phenomenology originally developed on the American continent,

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[146] Hookway (1992, 102).

[147] I am thinking here in particular of the phenomenological realism of Dietrich Von Hildebrand's *What is Philosophy* (1991).

although he does not develop it to the degree that Husserl did, or later phneomenologists like von Hildebrand.

For Peirce however things are more difficult: he does not approach phenomenology within the rich tradition of Husserl who was so influential on the continent but with a very different background. Peirce attempts to develop a phenomenology without intuition. This certainly affected differently Peirce's own attempt to work out a phenomenological approach to the categories. This will be examined more thoroughly below.

Peirce says this about the domain of phenomenology when discussing how phenomenology is the ground for philosophy and in particular metaphysics:

> …fourth, the phenomena which it [metaphysics] uses as premises, are not special facts, observable with a microscope or telescope, or which require trained faculties of observation to detect, but they are those universal phenomena which saturate all experience through and through so that they cannot escape us; fifth, in consequence at once of the universality of the phenomena upon which philosophy draws for premises, and also of its extending its theories to potential being, the conclusions of metaphysics have a certain necessity,—by which I do not mean that we cannot help accepting them, or a necessity of form,—I mean a necessity of matter, in that they inform us not merely how the things are but how from the very nature of being they must be.[148]

The goal then, in Peirce's mind, is to discover universal phenomena that saturate all experience. This should startle anyone thinking that Peirce is speaking of observation in the normal sense. There is certainly an observation taking place in the discovery of the universal phenomena, but it cannot be observation as normally thought of, the findings of which are always open to falsification through new discoveries. These universal

[148] Peirce (1998, 35).

phenomena are to provide the first premises for metaphysics and to provide a certain material necessity different from either being innate or being even a formal necessity. Let us look then at how Peirce approaches the science of phenomenology, the method he claims to employ, and the universal elements of which he claims to discover. But let us also note the ambition in this description of phenomenology. Peirce intends it to provide an account of the essential and necessary in experience.

Since the elements sought are simple and indecomposable there are no internal distinctions of such basic elements that could distinguish one from the other; this follows, Peirce thinks, from the elements being simple. But the elements may differ in their external structure or what Peirce describes as the "structure of its possible compounds". [149] If there is to be any formal division of elements of the phaneron it must be according to valency or combinability.[150]

Peirce describes his method for discovering the indecomoposable elements of the phaneron in his essay "On Phenomenology". He says the following:

> Be it understood, then, that what we have to do, as students of phenomenology, is simply to open our mental eyes and look well at the phenomenon and say what are the characteristics that are never wanting in it, whether that phenomenon be something that outward experience forces upon our attention, or whether it be the wildest of dreams, or whether it be the most abstract and general of the conclusions of science.[151]

The above statement shows that Peirce is essentially looking for the same thing that Kant was looking for, that which is never lacking in any phenomenon that the mind is

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[149] Peirce (1.288).
[150] Peirce uses "valency" in the sense used in chemistry where chemical elements are distinguished according to the number of bonds formed by an atom of a given element.
[151] Peirce (1998, 147).

confronted with. An element that is never lacking in a phenomenon, no matter all the different phenomena that are encountered, would be one that is necessary. What is most astonishing to me in this passage however is Peirce's use of the phrase "mental eyes". For Peirce combines here both the idea of immediate observation and the idea of intellect or mind. This certainly approaches what I have been terming intellectual intuition or intuitive understanding, and it must have been difficult for Peirce, prejudiced as he was by his past arguments against intuition, to characterize such a form of observation or experience without recognizing a tension with his earlier rejection of intuition.

Peirce says that three faculties are critical for discovering such universal elements of phenomena: first, "the faculty of seeing what stares one in the face, just as it presents itself, unreplaced by any interpretation, unsophisticated by any allowance for this or for that supposed modifying circumstance." Peirce calls this faculty the faculty of the artist "who sees for example the apparent colors of nature as they appear."[152] But what Peirce emphasizes most importantly in this faculty is the receptive nature of it. He is trying to characterize a state in which the observer is impressed upon by phenomena and grasps something in that phenomena without the aid of any active mental faculty. It must be remembered that Peirce never mentions any kind of tension with his earlier rejection of intuition. There is little tension with Peirce's oft cited claim that there is no thought without signs, for here he is describing a kind of receptive faculty different

[152] Peirce (1998, 147).

from thought. Yet, there does seem to be a tension with his rejection of any other kind of contact with objects except through thought, namely an intuitive contact.

The second faculty is described as "resolute discrimination which fastens itself like a bulldog upon the particular feature that we are studying, follows it wherever it may lurk, and detects it beneath all its disguises."[153] Here it seems to me that Peirce's notion of prescision answers this step quite well. Peirce says as far back as the *New List* that prescision is limited only to "that which arises from attention to one element and neglect of the other. Exclusive attention consists in a definite conception or supposition of one part of an object, without any supposition of the other."[154] I am encouraged here by Hookway who interprets this second faculty as hearkening back to Peirce's use of the term prescision in the *New List*.[155]

Third, Peirce claims that we need "the generalizing power of the mathematician who produces the abstract formula that comprehends the very essence of the feature under examination purified from all admixture of extraneous and irrelevant accompaniments."[156] These faculties are not elaborated on by Peirce but they do fill out the kind of investigation that phenomenology is to Peirce and the faculties that are necessary for carrying out such an investigation. We have a kind of mental seeing devoid of interpretation, a fastening of the attention on elements of what is seen while excluding from attention other unwanted elements, and then a generalizing capacity for abstracting what is the essential form of the element noticed.

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[153] Peirce (1998, 147).
[154] Peirce (1992, 2).
[155] Hookway (1992, 104).
[156] Peirce (1998, 148).

Unfortunately Peirce does not develop this method any further. In fact he explicitly says that each person must undertake the method for themselves not relying on the claims of others practicing phenomenology.[157] In some sense the method resembles that of ordinary empirical observation and induction simply transferred to the appearances with no concern for existence. But how one is to recognize that one has indeed grasped an element that is necessary not simply to the particular appearance one is facing at one time but an element that will not fail to be noticed in any appearance Peirce does not say. To my mind this is a result of Peirce's unwillingness to recognize any capacity like intuition while at the same time sensing the requirement of such a faculty for securing the categories.

Bypassing these concerns, and focused here on what Peirce himself claims, what elements of appearances are revealed to anyone who takes on the phenomenological task? What can be learned if a person, as Peirce says, "simply scrutinizes the direct appearances, and endeavors to combine minute accuracy with the broadest possible generalization"?[158] Peirce starts by saying there is no reason apriori that there should not be indecomposable elements which "are what they are regardless of anything else" called Primans. Further, there is no apriori reason there should not be indecomposable elements which "are what they are relatively to a second but independent of any third" called Secundans. Last, there is no apriori reason there should not be indecomposable elements "which are what they are relative to a second and a third, regardless of any

[157] Peirce (1.286).
[158] Peirce (1.287).

fourth" called tertians.[159] These three levels of valency, priman, secundan, and tertian are thought here by Peirce to be apriori possible but he claims that no valency higher than tertians is necessary. In fact Peirce claims it to be apriori impossible. Before continuing his assessment of the three basic valencies named above Peirce's brief argument against higher valencies should be examined.

What could the reason be for disqualifying valencies higher than tertians? Peirce claims the following and thinks the claim of the utmost philosophical importance:

> It is apriori impossible that there should be an indecomposable element which is what it is relatively to a second, a third, and a fourth. The obvious reason is that that which combines two will by repetition combine any number. Nothing could be simpler; nothing in philosophy is more important.[160]

The proof for such a claim is given elsewhere by Peirce most rigorously in his work on the logic of relatives. Peirce makes a similar claim in his article on the logic of relatives published in the *Memoirs of the American Academy* (1870):

> No fourth class of terms exists involving the conception of fourth, because when that of third is introduced, since it involves the conception of bringing objects into relation, all higher numbers are given at once, inasmuch as the conception of bringing objects into relation is independent of the number of members of the relationships. Whether this reason for the fact that there is no fourth class of terms fundamentally different from the third is satisfactory or not, the fact itself is made perfectly evident by the study of the logic of relatives.[161]

It is beyond the scope of my research to pursue the validity of such a proof. As was noted above in the section on the reasons Peirce moved to a phenomenological discovery of the categories it may be the case that Peirce himself was not completely

[159] Peirce (1.295-1.297).
[160] Peirce (1.298).
[161] Peirce (3.63).

satisfied with his mathematical proof of his reduction thesis. It may be for this reason that he turned to a phenomenological discovery. Peirce's Reduction Thesis has two components: first no higher valency class can be reduced to terms involving only lower valencies. Second, only three differing valencies are required for a completed logic of relatives.[162] Aside from these preliminary remarks made by Peirce about the apriori number and possible types of valencies for elements of appearances we must turn now to Peirce's account of what these elements themselves are when derived phenomenologically.

The first element, monadic in nature, is a quality. Peirce describes a quality as a "suchness sui generis". A quality is simple, without features, and not necessarily embodied.[163] Peirce continues:

> Among phanerons there are certain qualities of feeling, such as the color of magenta, the odor of attar, the sound of a railway whistle, the taste of quinine, the quality of the emotion upon contemplating a fine mathematical demonstration, the quality of feeling of love, etc. I do not mean the sense of actually experiencing these feelings, whether primarily or in any memory or imagination. That is something that involves these qualities as an element of it. But I mean the qualities themselves which, in themselves, are mere may-bes, not necessarily realized…Its only being consists in the fact that there might be such a peculiar, positive, suchness in a phaneron.[164]

Peirce cites secondary qualities as the "nearest good approximations to examples of monads as can be given".[165] Each unique possible quality of feeling is what it is regardless of relations to anything else and is not the result of any combination. We

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[162] For further research on the validity of Peirce's Reductive Thesis please see Burch (1991) and Correia and Poschel (2006).
[163] Peirce (1.303).
[164] Peirce (1.304).
[165] Peirce (1.303).

might liken it to an essence at least of the sensory type. He is careful also to distinguish the quality of feeling from the experience of that quality of feeling that involves sensation. Generally when anything appears there are many qualities presented to consciousness and in experience we are actively engaged with those feelings. But Peirce claims that it remains possible to conceive of a state of consciousness in which the quality of feeling predominates. Here is his example:

> Imagine me to make and in a slumberous condition to have a vague, unobjectified, still less unsubjectified, sense of redness, or of salt taste, or of an ache, or of grief or joy, or of a prolonged musical note. That would be, as nearly as possible, a purely monadic state of feeling.[166]

We can go so far as to say that there is no phaneron, nothing that is in anyway present to the mind that does not also contain a quality of feeling. This fundamental element of that which appears to the mind or to consciousness is ever present. And given that the mind is for the most part actively engaged in reflecting, comparing, combining, distinguishing, or otherwise thinking about that which presents itself to consciousness these qualities of feeling often lie underneath the reflective work that the mind is engaged in. But they are ever-present, and according to Peirce there is no phaneron that does not involve a quality of feeling.

The monadic status of these qualities of feeling, or their single valency is a primary feature. The quality of feeling is what it is regardless of its relation to anything else. It is not what it is in relation to other things or in comparison with other things. Each is singular, unique, and its such-being, as he calls it, is without reference to anything else. Peirce says it this way: “To reduce this description to a simple definition, I

[166] Peirce (1.303).

will say that by a feeling I mean an instance of that sort of element of consciousness which is all that it is positively, in itself, regardless of anything else."[167] It is therefore not an event or an occurrence because these terms refer to states which come about or which were not at some time, and so which are only relative to some prior state, event, or occurrence.

Murphey has noted that the character of the categories derived has changed between the *New List* and the phenomenological derivation made here.[168] The category of quality in the *New List* is the category of an abstraction. Blackness, thought of in the *New List*, is "a pure species of abstraction", a conception that reduces the manifold to unity.[169] In the phenomenological discovery Peirce's characterization of Firstness is much closer to Kant's manifold of sense, of something that is "peculiar and idiosyncratic."[170] In the *New List*, it is relation and interpretation which seem to make possible the abstraction "blackness" so that Firstness logically presupposes comparison and interpretation. Here, Firstness is characterized as that which precedes all comparison and interpretation.

Now we move on to consider whether in phanerons there is anything that matches the apriori possibitity of elements with a valency of two; what Peirce calls secundans. Peirce claims that there is such an element, namely struggle or reaction. Peirce defines the element of struggle as the "mutual action between two things

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[167] Peirce (1.306).
[168] Murphey (1993, 307).
[169] Peirce (1992, 4).
[170] CP (1.302).

regardless of any sort of third or medium…"[171] The example which Peirce uses to draw out what he means by this element is the following:

> Standing on the outside of a door that is slightly ajar, you put your hand upon the knob to open and enter it. You experience an unseen, silent resistance. You put your shoulder against the door and gathering your forces, put forth a tremendous effort. Effort supposes resistance. Where there is no effort there is no resistance, where there is no resistance there is no effort whether in this world or in any of the worlds of possibility.[172]

The resistance and effort in this case are two sides of the same coin. They are dependent upon one another for their existence. Peirce refers to change, causation, action, and perception, as examples where the element of struggle is primary. Causation is a relation between cause and effect, not a mediated relation, but an affair of brute force. Action is an event where the effort of the person is emphasized over the resistance of the thing acted upon. Perception is an example of where the object's effect on us is emphasized over our effect on the object. In each case action is not possible without something acted upon. Perception is not possible without perceiver and perceived. What is emphasized in these examples is the brute force of two things exerting themselves upon each other regardless of any third mediating relation.

It follows then that the element of struggle is not a quality of feeling or priman. So, we should distinguish between the element of struggle and the feeling we may have when struggle is present. The reason the element of struggle is not a feeling, and so not merely a subset of the first element discussed, is that it is not what it is regardless of anything else but is what it is by being a relation between two things. But it also is not

[171] Peirce (1.322).
[172] CP (1.320).

an element with a valency of three. The relation here is not brought about by a third mediating thing of any kind. Here the valency is two: in all that appears, or in every phaneron, there will be an element of struggle.

What kind of justification can Peirce give for the idea that struggle is universal or a part of any and every phaneron? If we start from the assumption that every phaneron contains qualities of feeling we may also include the element of suffering by extension. Here is the way Peirce argues the point:

> This [struggle] is present even in such a rudimentary fragment of experience as a simple feeling. For such a feeling always has a degree of vividness, high or low; and this vividness is a sense of commotion, an action and reaction, between our soul and the stimulus. If, in an endeavor to find some idea which does not involve the element of struggle, we imagine a universe that consists of a single quality that never changes, still there must be some degree of steadiness in this imagination, or else we could not think about and ask whether there was an object having any positive suchness. Now this steadiness of the hypothesis that enables us to think about it…consists in this, that if our mental manipulation is delicate enough, the hypothesis will resist being changed. Now there can be no resistance where there is nothing of the nature of struggle or forceful action.[173]

Now clearly if there is a quality of feeling in every phaneron, and the element of struggle is present in every quality of feeling, then there will be an element of struggle in every phaneron. Peirce's first reason offered in the quote above is that the very idea of a feeling implies the action of one thing upon another. Were there nothing happening there would be no feeling. So, if there is feeling, then there is struggle.

His second reason, offered as a thought experiment, asks us to imagine a universe consisting completely of only one quality of feeling that never changes. Is the

[173] Peirce (1.322).

element of struggle implied even in such an imagined universe? Peirce reasons that even here the element of struggle is present. The steadiness of the imagined universe represents a resistance to being changed as we think about it, and so implies the element of struggle. So, according to Peirce both steadiness and change imply the element of struggle. The steadiness of stability implies that the stable thing offers enough resistance to maintain its character while change implies the force of one thing upon another being significant enough to bring about a change.

Peirce turns last to reflection on the reality of tertiary elements in the phaneron. Unfortunately, Peirce's analysis of tertiary elements is not as thorough as his analysis of either qualities of feeling or struggle. He offers as consolation the following in regard to why his analysis of tertiary elements is not as complete as the others:

> The ideas in which Thirdness is predominant are, as might be expected, more complicated, and mostly require careful analysis to be clearly apprehended; for ordinary, unenergetic thought slurs over this element as too difficult. There is all the more need of examining some of these ideas.[174]

Peirce offers ideas like representation, generality, infinity, continuity, diffusion, growth, and intelligence as examples of ideas that fall under the title of thirdness. By way of giving meaning to this element Peirce says that a third is "the medium or connecting bond between the absolute first and last."[175] Again examples are offered which show that tertiary elements are always present:

> The beginning is first, the end second, the middle third. The end is second, the means third. The thread of life is a third; the fate that snips it, its second. A fork in a road is a third, it supposes three ways; a straight

[174] Peirce (1.338).
[175] Peirce (1.337).

> road, considered merely as a connection between two places is second, but so far as it implies passing through intermediate places it is a third. Position is first, velocity or the relation of two successive positions second, acceleration or the relation of three successive positions third…Continuity represents Thirdness almost to perfection. Every process comes under that head.[176]

One can begin to feel or sense the difference between tertiary elements and secondary elements in that the element of struggle is present between two things in relation without the need of a mediating third. The element of thirdness is present anytime a third thing brings two things into relation. But what of the claim that thirdness is universally present in every phaneron, or as Peirce says on other occasions, never lacking in any phaneron? Peirce does not set out in his analysis to show that this is the case. But a justification may be found in another manuscript Peirce wrote titled "The Basis of Pragmaticism in Phaneroscopy". In the following passage Peirce argues that the idea of combination, and therefore mediating elements which bring about combination, is implicit in the very idea of a phaneron.

> Thus, unless the Phaneron were to consist entirely of elements altogether uncombined mentally, in which case we should have no idea of a Phaneron (since this, if we have the idea, is an idea combining all the rest), which is as much as to say that there would be no Phaneron, its *esse* being *percipi* if any is so; or unless the Phaneron were itself our sole idea, and were utterly indecomposable, when there could be no such thing as an interrogation and no such thing as a judgment (as will appear below), it follow that if there is a Phaneron (which would be an assertion), or even if we can ask whether there be or no, there must be an idea of *combination* (i.e., having *combination* for its object thought of).[177]

[176] Peirce (1.337).
[177] Peirce (1998, 364).

Therefore, by the very definition of a phaneron triadicity will be an element of it. Since a phaneron is defined as "the collective total of all that is in any way or in any sense present to the mind" it involves implicitly the element of combination. And since combination is itself brought about by a third which unites at least two others, tertiary elements will be elements of every phaneron. The only other option, as Peirce notes above, is that phanerons are simple, in which case they are not the kinds of things that can be investigated at all.

Peirce gives names to these elements, and they look suspiciously like the names of the categories that were originally derived from the functions of judgment in *On a New List of Categories*. Peirce names monadic elements qualities, secundans relations, and tertiary elements are most often discussed by Peirce under the heading of representation. The terminology that Peirce eventually settled on for the categories was Firstness, Secondness, and Thirdness. But there are real differences between the two lists: firstness is no longer conceptual but merely a possible. Secondness retains much of its central meaning, but the notion of "It" that played the role of substance in Peirce's initial derivation in the *New List* is now a part of secondness since the idea of "it" is the idea of an other but uninterpreted by a third. Thirdness also has been given broader meaning in Peirce's later discovery. While the original derivation gave the role of Thirdness to a mediating relation it now also includes part of what Peirce considered originally as Firstness. Since abstract concepts like "Black" serve to mediate or combine all the manifold of blackness they are not Firsts but Thirds.

It may be asked in what sense the categories derived phenomenologically are apriori? Peirce answers this question by appealing to the unique nature of phenomenology in comparison to other sciences, but as I have already stated there is a tension in Peirce's development of this phenomenological science. Phenomenology is unique in that it does not require empirical judgment. In this sense what is noted in phenomenological investigation is beyond disproof or mistake. Error is avoided because the object of investigation, the phaneron, is uniquely and immediately present to consciousness. There is no inferring beyond the appearances to the cause of those appearances or two objects of some other sort. What is noted in phenomenological investigation is in this sense beyond debate. That there are qualities, that there is the element of struggle or relation, or that there are tertiary elements is simply a matter of noticing them in what appears.

> It will be plain from what has been said that phaneroscopy has nothing at all to do with the question of how far the phanerons it studies correspond to any realities. It religiously abstains from all speculation as to any relations between its categories and physiological facts, cerebral or other. It does not undertake, but sedulously avoids, hypothetical explanation of any sort. It simply scrutinizes the direct appearances…[178]

And again Peirce attempts to describe why the results of phenomenological investigation are beyond dispute and do not involve inference or even reasoning about existence or facts about existence:

> It [phenomenology] describes the essentially different elements which seem to present themselves in what seems…It can hardly be said to involve reasoning; for reasoning reaches a conclusion, and asserts it to be true however matters may seem; while in Phenomenology there is no

[178] Peirce (1.287).

> assertion except that there are certain seemings; and even these are not, and cannot be asserted, because they cannot be described.[179]

So, in one sense it seems that the findings of phenomenology in its peering into the phaneron are beyond dispute. But that these elements discovered are ever-present or universally present in the phaneron cannot be simply a matter of "looking". That they are the basic elements of the phaneron also seems to be disputable. One may, beyond dispute, be able to recognize elements of the phaneron but how can one know that such elements are truly universal if one, in referring to observation, means something closer to empirical observation? So, we find Peirce claiming at the same time that Phenomenology does not deal with assertion or with truth since it is prior to logic while also saying this:

> I may say, however, that in my own opinion, each category has to justify itself by an inductive examination which will result in assigning to it only a limited or approximate validity.[180]

I leave this tension for now because I do not think it reconcilable. Phenomenology either represents a science that is different from ordinary empirical observation and so immune in some way to the errors that arise in empirical observation or it is not. It is either a continutation of the inductive process or it is not. But what can be said is that Peirce himself seems to represent phenomenology both as something prior to empirical discovery, even prior to logic and ethics, and requiring different faculties from those ordinarily associated with empirical science, and as a method involving observation and generalization that is consistent with phenomenology being closer to an empirical

[179] Peirce (2.197).
[180] Peirce (1.301).

science. To my own mind the tension here stems from Peirce's early rejection of intuition and commitment to a kind of inferentialism.

An important implication of Peirce's phenomenological analysis is that we begin to distinguish between ordinary empirical experience and a kind of interaction with reality that if characterized as experience is not susceptible of the same account. But this encounter with appearances should not be discounted or ignored as if it is not an encounter or a perceiving. I will take this up further in chapter five after looking at the third element of Peirce's theory of experience.

In the first section of chapter three the basic categories of reality were derived from the functions of judgment. In this section the basic categories have been discovered by a phenomenological method. It appears that one of the risks in Peirce's transition to a phenomenological discovery is the necessary and *a priori* status of the categories. But Peirce seems to have traded the *a priori* status for the categorical status. What I mean is that his attempt to derive them from *outside* gives their status as categories more strength. In the next and final section of Peirce's account of the necessary elements of experience his account of signs will be examined: the role that signs play in experience as well as the formal and necessary account of the classes of signs. Peirce called the study of signs semiotic and to that account this investigation now turns.

Chapter 4: Peirce's Theory of Semiotics

4.1 Deriving the Ten-Fold Classification from Categories

Peirce's theory of semiotics was a work in progress that consumed him for much of his philosophical career. Peirce's most often used division of signs into likenesses, indices, and symbols appear as early as "On a New List of Categories". [181] His famous claim that "All thought, therefore, must necessarily be in signs" appears in the early article "Questions Concerning Certain Faculties Claimed for Man".[182] As late as 1909 Peirce's correspondence with William James involved new terms, new ways of understanding old semiotic distinctions, and evidence to the reader that even near the end of his life semiotics was for Peirce of the utmost interest. There is not space for a full survey of the wealth of material that Peirce generated regarding semiotics, nor am I interested in a historical development of Peirce's semiotic theory. I am primarily interested in semiotics in so far as it represents another element of a theory of experience which can be known independently of empirical research and also as a development of Kant's original idea of a schematism of the pure understanding.

The best point from which to develop an understanding of the importance of semiotics for a theory of experience in Peirce's philosophy is to begin with Peirce's early rejection of intuition. Peirce's reasons for rejecting intuitive cognitions have already

[181] Peirce (1992, 7).
[182] Peirce (1992, 25).

been covered in chapter two. The implication of the truth of the claim that there is no intuition is that all experience of objects is mediated. If we say that experience is mediated we mean that it is had of objects through something else which brings us into indirect contact with objects. Since, according to Peirce's arguments against intuition, we are never in immediate contact with objects, our knowledge of them, experience, however limited, is always through what Peirce calls signs.

Given my analysis of the success of Peirce's arguments against intuition and also my suggestions that some form of intuitive understanding may be at work in both Peirce's and Kant's theories of experience it may seem questionable whether signs are any longer necessary as a fundamental component of experience. Signs would not be necessary if our interactions with all objects or all of reality were intuitive. But they are not. There seem to be many aspects or parts of reality for which we have little intuitive insight. For these cases signs are indeed necessary. So, we might revise the claim to say that given the kind of empirical judgment that Peirce and Kant were thinking of as experience signs are necessary. But, signs will not be necessary for any interaction with objects that is intuitive.

A sign then designates a function, a unity of activity, as opposed to an object. The class of things denoted by the term sign is anything that fulfills the particular function that a sign fulfills. And the theory of signs has as one of its studies understanding the differences between signs according to the different ways that they fulfill the particular function that a sign fulfills. Peirce called the study of signs semiotics. Liszka defines semiotics this way:

> Semiotics, as a branch of philosophy, is a formal, normative science that is specifically concerned with the question of truth as it can be expressed and known through the medium of signs, and serves to establish leading principles for any other science which is concerned with signs in some capacity.[183]

The normative aspect of the study involves the proper use or employment of signs in inquiry. There is a descriptive aspect as well. It is the descriptive aspect that I will be most concerned with in what follows. Peirce defines a sign differently throughout his career. But the differences pale in comparison to the similarities in how he understood the basic components of signs and their essential function. The following are examples from different periods in Peirce's writings:

> [From 1895] A *sign* is a thing which serves to convey knowledge of some other thing, which it is said to *stand for* or *represent*. This thing is called the *object* of the sign; the idea in the mind that the sign excites, which is a mental sign of the same object, is called an *interpretant* of that sign.[184]

> [From 1903] A *Sign*, or *Representamen*, is a First which stands in such a genuine triadic relation to a Second, called its *Object*, as to be capable of determining a Third, called its *Interpretant*, to assume the same triadic relation to its Object in which it stands itself to the same Object.[185]

> [From 1908] I define a *Sign* as anything which on the one hand is so determined by an Object and on the other hand so determines an idea in a person's mind, that this latter determination, which I term the *Interpretant* of the Sign, is thereby mediately determined by that Object. A sign, therefore, has a triadic relation to its Object and to its Interpretant.[186]

Essential to a sign function is the triadic relation between sign, object, and interpretant. The sign is whatever is determined by an object to determine an interpretant. It stands

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[183] Liszka (1996, 14).
[184] Peirce (1998, 13).
[185] Peirce (1998, 272).
[186] Peirce (1998, 482).

in a triadic relation to both its object and interpretant because its determining of an interpretant is always with reference to an object and cannot be understood to signify without that reference; similarly the signs relation to its object is triadic because it cannot be understood without reference to the interpretant that it mediately determines. Peirce considered this triadic relation of the utmost importance for understanding semiosis:

> But by "semiosis" I mean, on the contrary, an action, or influence, which is, or involves, a cooperation of *three* subjects, such as a sign, its object and its interpretant, this tri-relative influence not being in any way resolvable into action between pairs.[187]

Since, of necessity, sign relations contain these three elements the division of sign relations can be made apriori according to the various possible combinations of determining and determined elements. That is, the formal classification of signs may be made by distinguishing the kinds of objects, signs and interpretants that are joined in the sign relation. The broadest classification of sign relations, not simply classifications according to their representational function, and not just according to their determining function, but including all three elements for classification produces ten basic types of signs.[188] Classifications can be further specified by including a richer account of sign characteristics. For instance, Peirce discovered that one can consider the immediate object of the sign or the dynamic object of the sign in any sign function. Including this distinction in the classification of signs would increase the number of sing classes. Peirce also began to distinguish different types of interpretants: immediate, dynamic, and

[187] Peirce (1998, 411).
[188] The most famous presentation of this ten-fold classification is Peirce's "Nomenclature and Divisions of Triadic Relations, as Far as They Are Determined".

final.[189] But Peirce's classifications became increasingly experimental and he found it difficult work figuring how these distinctions altered the classifications of signs. What follows is a reconstruction of Peirce's most famous and well-established ten-fold classification of signs found in "Nomenclature and Divisions of Triadic Relations, as Far as They are Determined".[190] The fact that Peirce later augmented his classification of signs and increased their number does not diminish the validity of the earlier ten-fold classification. The differences between the earlier and later classifications are like the differences between the kingdom and species levels of classification. The ten-fold classification is meant to encompass all possible kinds of signs at some general level.

Peirce begins the classification by looking at the sign itself and the categorical nature of the character that is essential to the sign function. According to the categories of Firstness, Secondness, and Thirdness any being or character will fall into one of those categories. So, anything may be a sign by virtue of a quality it has, where the quality is important and not the "here and now" existence of the sign or any customary or natural laws associated with the sign. Alternatively the sign may function as a sign based not primarily on a quality it has but on its particularity or "here and now" existence. Last, the sign may function as a sign because of a custom or law that makes it a sign of something else. Liszka calls this the presentative condition of the sign.[191] A sign that presents itself as a quality is called by Peirce a qualisign. A sign that presents itself as an individual existence is called a sinsign. Last, a sign which is so by a law or custom is

[189] Peirce (1998, 402-418, 477-491).
[190] Aside from the paper here mentioned Liszka (1996) is the most helpful interpretation of Peirce's ten-fold classification of signs.
[191] Liszka (1996, 20).

called by Peirce a legisign.[192] It must be remembered that the same thing may be a sign in any one of the three basic categorical ways mentioned. Liszka offers a helpful example:

> A star, for example, may serve as a sign in many capacities because of its brightness, or the fact that it appears only at night, or because it seems to point toward a certain direction, or because of its accumulated historical and conventional senses.[193]

The example is helpful for exemplifying that the classifications here made are not of objects so much as classifications of significating capacity. The sign's presentative condition limits its representative capacity and so its capacity to determine an interpretant. More will be said about this limitation below.

An example of a qualisign won't be found outside of its instantiation in a sinsign. Similarly a sinsign won't be encountered except that it also includes qualisigns as a part of it. But it is not the mere presence of individual existence or qualities that determine the presentative condition of the sign but which of those basic characteristics is acting in the representative or significant function. Examples of qualisigns are so pervasive as to be easily overlooked. Any red thing can act as a qualisign of redness. So for any quality of feeling. Whenever a thing stands for something else because of a particular quality that it embodies, a color, texture, smell, taste, or even such qualities as wholesomeness or uprightness or special shade or hue of a quality such a sign is a qualisign. On the other hand sinsigns are signs that act as such because of their "here and now" character, the character of their individual existence. A buzzer at the end of the game and a red light at

[192] Peirce (1998, 291).
[193] Liszka (1996, 35).

an intersection are both at least partially sinsigns. For these signs the qualities they express are largely of secondary importance. What is important is when and where they occur. Last, Peirce provides the term *the* as an example of a legisign. *The* is a sign that is essentially a custom of associated meanings that make it the sign that it is. It is not its individuality on this page or that page or in this voice or on that screen that give it its significant capacity; further it is not the particular quality of the shape of the letters or the sound of the sign when spoken that give it its significant capacity. *The* is a sign which presents itself as a custom or law which give it its significant capacity and make the instances and qualities, when they occur, significant. Legisigns are general types, their instantiations are sinsigns, but they would not be significant without the law or legisign that makes them so.[194]

The second division of signs Peirce examines is founded on the relation of the sign to its object. It may be asked why or how this class is distinct from the prior class. The prior class feature, considered as the presentative classification of the sign, focuses specifically on what that aspect of the sign is that gives it its capacity to signify. But here we consider in what way it may stand for its object which it is a sign of. And this capacity, the representative capacity may be distinguished in the following way: while a sign's presentative nature places some restrictions on its representative capacity it does not completely determine its representative capacity. Signs may stand for or represent in various ways, and the presentative character, while limiting representative capacity,

[194] Peirce (1998, 291).

is no guarantee of what the representative capacity of the sign is, given its specific object.

Peirce establishes the classification of representative capacity again by viewing the capacity through the lenses of the categories Firstness, Secondness, and Thirdness. This classification is also Peirce's most familiar having been made as early as *The New List of Categories*. Signs may be placed into the classes of icons, indexes, or symbols depending on how they perform the task of standing for their objects. Anything, quality, existent, or law, or named qualisign, sinsign, and legisign, may stand for something else by being like the thing they represents. Such a sign is an icon if it stands for its object by resembling it in some way. Icons stand for their objects merely by being such that characteristics they have are also characteristics of the objects they represent. In this sense a map is an icon of the area it stands for, a photograph is an icon of the area that it is an image of, and any shade of a color or sound or texture is an icon of any other member of its class for the very reason that it shares some characteristic that the other members share. But we should not limit the iconic representative function to mere qualities. One thing can represent another by it having similar internal or external relations that its object has. Or, a sign may be like its object because it has similar representative functions as its object.

An index on the other hand is a sign which represents its object not through likeness but by being really affected by the object. It is because the index is modified, as Peirce says, by the object that gives it its representative capacity. So a weathervane is modified by the wind, a thermometer is modified by the temperature, smoke is

modified by fire, and the rings in a tree are modified by the number years of growth the tree has endured. In each case it is this real relation that the sign, either weathervane, thermometer, smoke, or tree ring, has to its object that gives it its representative capacity. This indexical representative capacity is clearly of a different sort than the iconic capacity of a sign. As Peirce notes, the icon retains its representative characteristic independent of the presence of an object because the character is something the sign has on its own. But not so for the index which loses all representative capacity when not in real existential relation to the object that it represents.

Last, a symbol is any sign that refers to its object by virtue of a law, most often conventional, that causes the sign to stand for the object that it does. The symbol is unique in that while the icon and index retain their representative power regardless of whether anybody notices them the symbol only represents its object when it is recognized as doing such by a mind. Peirce says it this way:

> A chalk mark is like a line though nobody uses it as a sign; a weathercock turns with the wind, whether anybody notices it or not. But the word "man" has no particular relation to men unless it be recognized as being so related. That is not only what constitutes it a sign, but what gives it the peculiar relation to its object which makes it significant of that particular object.[195]

The symbol is unlike the icon in that it has its representative power in something external to it, namely the law that associates it with its object, but like an index in that if its relation to its object is removed, that is if the law that governs its representational power is eliminated, then it no longer has significant power.

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[195] Liszka (1996, 39). This quote is originally from Peirce's correspondence.

Last, Peirce categorizes signs according to the interpretant that they produce or determine. Different kinds of signs have differing capacities for producing interpretants. Liszka defines the interpretive capacity of a sign as "the sign's power to direct or determine its interpretants toward a certain focus of interpretation of its object."[196] In other words it is not enough for something to be a sign that it produces a mental effect. The mental effect must be produced with a directing toward the object that the sign stands for. Peirce explains this important feature of the interpretant this way:

> Permit me to call this total proper effect of the sign taken by itself the *interpretant* of the sign. But merely producing a mental effect is not sufficient to constistutute an object a sign; for a thunder-clap or avalanche may do that without conveying any meaning at all. In order that a thing may be a true sign, its proper significate mental effect must be *conveyed* from another object which the sign is concerned in indicating and which is by this an effect…[197]

In the passage above the thunderclap or avalanche are certainly indexes. But they are not full signs if there is not an understanding mind to which an interpretant is presented which directs the mind to the object which brought them about. The thunder-clap is in real relation with the lightning that produces it, and the avalanche is an indication of its cause, but unless the interpreting mind is present which understands those indexes to be indexes of their objects no proper signification has taken place.

Just as in the other classifications signs, in their interpretive function, are individuated according to the divisions of the basic categories. Peirce calls the three basic categories of signs in regards to their interpretive function rhemes, dicent signs, and arguments. A rheme, or as Peirce calls it sometimes a term, is a sign that for its

[196] Liszka (1996, 40).
[197] Peirce (1998, 429).

interpretant is understood as representing a possible object. A dicent sign is a sign of actual existence. Peirce often equates a dicent sign with a proposition. While rhemes do not indicate anything actual but only determine a possible object, propositions determine an interpretant of actual existence in the mind. Last, arguments are signs that are signs of law in regards to the interpretant. Another way to understand the function of the argument is that it is a sign of an object as a sign.[198] An argument is made up of propositions, which themselves contain rhemes, and the interpretant it produces represents the object to stand for something else: namely the truth of the conclusion to which it persuades.

> The Interpretant of the Argument represents it as an instance of a general class of arguments, which class on the whole will always tend to the truth. It is this law, in some shape, which the argument urges; and this "urging" is the mode of representation proper to arguments. The Argument must, therefore, be a Symbol, or a sign whose Object is a general law or type.[199]

The argument as a sign does indeed produce a mental effect that determines the mind to accept the conclusion through lawful rather than existential or feeling means. The persuasive power of an argument is a matter of the lawful relation of the premises and the conclusion. The interpretant produced, the conclusion certainly is not in any other relation with the sign itself.

After completing the analysis of sign functions under the aspect of the categories Peirce connects these different aspects in order to construct the ten-fold classification of signs. Since every full sign is a triadic affair a sign is never simply an index, or an

[198] Peirce (1998, 292).
[199] Peirce (1998, 293).

argument. In full expression a sign is individuated by being classified under the three aspects covered so far: its presentative aspect, representative aspect in relation to its object, and its interpretive aspect.

I do not intend to pursue Peirce's account of signs into their intricate details. Peirce's account was never fully finished and he continued to speculate on the nature of signs in such a way that his account could easily overrun the effort made in understanding it. Most interesting to me is that the account is constructed from Peirce's account of the categories which itself has been reduced to something of a hypothesis through his later method of phaneroscopy.

The ten-fold classification of signs is a matter of understanding signs through the nature of triadic relations. The classification may first be displayed in graphical form on the following page. The three rows represent the three characteristics of signs: the first row represents the signs presentative character. The second row involves the signs relation to its object or representative character. The third row represents the signs interpretative character. In each column these different aspects of the sign are viewed through the categories themselves. So that the presentative, representative and interpretative character each are subdivided into classes through firstness, secondness, and thirdness. The last rule that structures the overall classification of the signs and influences the eventual classification is the rule that Liszka has formulated this way:

> The presentative aspect of a sign can only be combined with representative aspects which are equal to or lower than the presenatitive's phenomenological type; the representative aspect of the

sign can only be combined with interpretative aspects which are equal to or lower than the represenative's phenomenological type.[200]

With this rule in mind one can trace the classes of signs with the numbers as labels in the chart below.

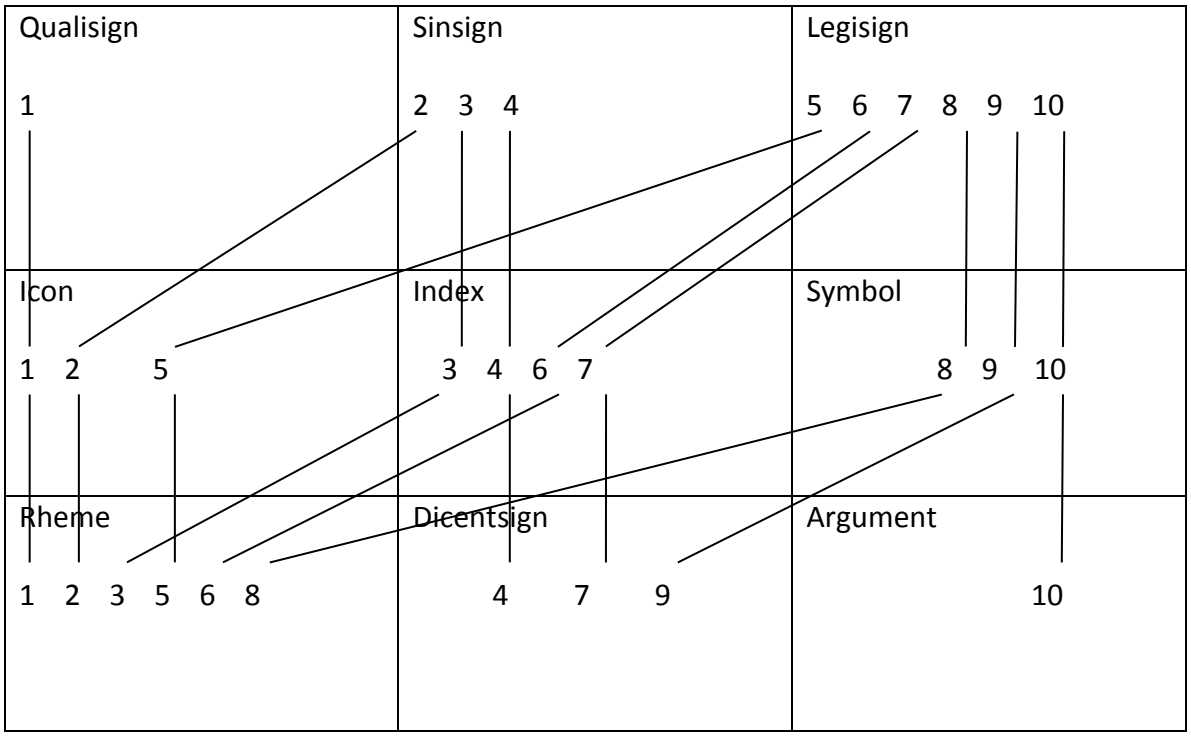

Figure 4.1 Diagrammatic representation of Peirce's ten-fold classification of signs.

The following classes result:[201]

1. Rhematic iconic qualisigns
2. Rhematic iconic sinsigns
3. Rhematic indexical sinsigns
4. Dicentic indexical sinsigns
5. Rhematic iconic legisigns

[200] Liszka (1996, 45).

[201] In the above chart each line traced through each row shows the characteristic of the sign. Each row consists of one of the three categorical characteristics of the sign: the first row represents what the sign is in itself, the second row represents the signs relation to its object, and the third row represents the different relations to a content or interpretant.

6. Rhematic indexical legisigns
7. Dicentic indexical legisigns
8. Rhematic symbolic legisigns
9. Dicentic symbolic legisigns
10. Argumentative symbolic legisigns

But what are we to make of the strength of this classification in light of Peirce's revised method for deriving the categories?

I think that two points can be made: first a defense of the strength of such a classification. Second, a worry about its strength relative to the strength of the justification for the categories that are the basis of the semiotic structure. First, the categories are derived from what Peirce says is universal and necessary in appearance. According to Peirce to the degree that one cannot be mistaken about what appears, the categories and therefore the sign classes based on them, are above reproach. What is still problematic though is Peirce's generalizing step which is a step taken to secure the universality of the categories in any appearance. The worry can be expanded this way: it is one thing to notice that an element is necessary for this or that appearance, but how does one show that an element is universal in appearance? This would require a kind of insight into appearance that Peirce seems to at best stumble around descriptively. He speaks of the artist's skill for seeing what is right in front of one's face. It sounds like an immediate seeing, or a seeing not mediated by signs. And indeed this is what Peirce intends. But it on its own is not enough to guarantee the universality of the elements so seen.

Another worry about the phenomenological derivation is about the overall number of categories. To the degree that Peirce lacks an argument proving that no category beyond the third is necessary we are left to wonder whether a later discovery of higher valencies might radically change the structure of the basic classification of the categories. I admittedly have left unanalyzed the proof for his reduction thesis but also suggested that it remains controversial. So, even if Peirce's artistic method of seeing what stares one in the face could be augmented so as to allow for a seeing into the very being of appearance, which would allow for a kind of seeing what is necessary to all appearances, this would not guarantee the latter step toward a complete account. It is conceivable that even a type of intellectual intuition that allows for seeing into the fundamental being of a thing would not necessarily be complete. An example of such a limitation might be our knowledge of matter. Assume an argument could be made that the knowledge that matter is essentially extended is intuitive. Even so, there is much about the differently organized material beings that we do not understand. Debate has never ceased over the teleology of the material world. It is possible that while the essentiality of extension in matter is perceived that the teleology of the material world is in some sense hidden from view. I am neither claiming that the connection between matter and extension is intuitive nor that we do not know the teleology of the material world only that it represents a plausible scenario where intuitive knowledge could be present but incomplete. In this sense Peirce's account of the necessary elements of appearances, and so his latter account of the categories,

could be on target while still being incomplete. The claim to completeness is a separate claim from the claim of necessity.

Leaving aside for now the worries about the foundation of Peirce's systematic discovery and elaboration of signs we pursue just what this classification of signs has to do with experience. For Peirce, the semiotic system is a presentation of all that may come before the mind to lead us to knowledge of objects or experience. It represents a rich theoretical system for understanding the nature and relation of the elements that experience is composed of. Since for Peirce our only contact with objects, and so our only knowledge of objects, comes through signs, knowledge of the nature of signs and their possible relations constitutes knowledge of the nature of experience as knowledge of objects.

Since anything that plays the role of standing for an object and determining an interpretation is a sign, and even the interpretants are signs, then Peirce's semiotic system encompasses both natural existing objects as well as ideas in the mind; meanings, laws, numbers, words, and sounds, insofar as those things stand for others, are signs and so are constrained by what semiotics discovers is true about their nature and relations. So, for anything that stands for something to a mind, or quasi-mind as Peirce would say, we can categorize it and predict how it will influence other signs, what kinds of interpretants it will determine, as well as how and whether it may be joined with other signs to form more complex signs.

I turn now to a comparison with Kant's account of schema. In one sense Peirce's semiotic system is an elaboration of Kant's brief and dense chapter on the Schematism

of the Pure Understanding. But given that some of Peirce's own understanding of the categories began to change and the role he gives to signs in his own work was much more substantial the roles that signs play compared to schema was enlarged as well.

4.2 Kant, Peirce and the Possibility of Mind World Relation

We may recall from our initial summary look at Kant's theory of experience in chapter one the insight that guides so much of Kant's thinking about experience: that the possibility of metaphysics taking on the structure of a science depends on its being constructed from elements themselves amenable to reason. Since reason is desirous of necessity in its activity this is a characteristic which the elements that a metaphysics is constructed with must also have. Combine this with the other Kantian insight that in fact Reason does have a synthetic capacity independent of experience, at least in the sense of not following from it *a posteriori*, and we have the initial ingredients of an approach to metaphysics on which it is possible for metaphysics to take on the form of a science. By science we mean, as Kant would, a complete system of knowledge that follows necessarily from basic principles. This search for a ground for metaphysics is what directs Kant to investigate experience and its possibility. But what that search establishes is the necessary elements of the possibility of experience.

The project is complicated by Kant's rejection of intellectual intuition. On the one hand I questioned his right to the claim that time and space are indeed the forms of intuition. The claim that these are the *a priori* forms of intuition may be questioned both because it entails a claim to necessity and a displays a kind of interaction with these realities that does not fit any capacity Kant describes. But it also means the categories

cannot be known accept through inference, there being no knowledge of the *a priori* that is intuitive in nature. The categories are derived from an account of judgment and so rest for their foundation on Kant's account of judgment. The direction of this account is toward the internal. It amounts to at least a worry about the subjectification of the elements of experience.

The schematism of the understanding is introduced by Kant as a third element necessary for the possibility of experience that makes possible the unity of the individual in appearance and the categories of the understanding. One might see in this the very merging of a mind/world dichotomy with the qualification that the world is what Kant calls the phenomena of empirical reality. The categories are applicable to appearances only insofar as there are schematic representations that have the function of merging the universal categories with the universal form of intuition time. Kant sees only a solution to a problem of application of the categories to appearances. When the problem looks to have received a solution he moves on not interested in further development. Peirce however, as was noted in the third section of chapter one on Kant's schematism of the understanding, saw something much more interesting in the Kantian system.

Peirce claimed the following: "if the schemata had been considered early enough, they would have overgrown his whole [Kant's] work."[202] Why did Peirce make this claim and what was the significance he saw in Kant's schematism section? The answer lies within the context of the passage where Peirce is reflecting on the

[202] Peirce (1.35).

distinction between intuition and the discursive processes of the mind in Kant's *Critique*. Peirce claims that Kant saw more clearly than any of his predecessors the implication of drawing this sharp distinction between sensibility and understanding. Presumably the schemata would have overgrown his whole work because from Peirce's perspective the notion of intuition and discursivity represent the extreme endpoints of a continuum of our ability to inquire. For Peirce the schemata fill a need created by the extreme dichotomy between intuition and discursivity. Elaborating this continuum is what the semiotic system that Peirce constructs fulfills. Peirce's semiotic system begins with the simplest form of significance in the notion of a rhematic iconic qualisign, a sign which is a mere quality standing in the relation of similarity to its object and determining a sign in the mind that represents the quality to be in relation of similarity with its object; the semiotic system culminates in the argumentative symbolic legisign, the sign of convention, reason and rule following. But Peirce fills in the semiotic system with a gradation of signs which ultimately form a continuum of all possible relations between object and understanding. One might say that Peirce's semiotic system is meant to overcome the extreme duality he saw in Kant's *Critique* or at least is the outworking of his effort in this regard.

There is something enticing and persuasive in Kant's claim that experience, in order to be worked into a science or systematic understanding, must be composed of elements which are amenable to Reason. There is something in Kant's constructivism, that ultimately experience is the process of construction, of an activity of combining, what Kant called synthesis, and again it must be emphasized that only necessary

elements will do. But what Kant struggled to show, and what remains an obvious point of contention among those supportive or critical of Kant's work is whether he can successfully show what those elements are through his transcendental argument.

The categories he derives from the clue provided by the table of judgments. But in spite of his efforts to derive the table of categories from a logical as opposed to psychological foundation, questions have remained over the ultimate structure of judgment or about whether modern logical innovations make Kant's table of judgments obsolete. Strawson (1966) makes just this claim about the categories. But of course Strawson's own suggestion that the categories be discovered through empirical psychological research betrays his own lack of understanding of the nature of and justification for the categories. The categories, as apriori necessary elements of experience, could no more be discovered through empirical research than one can discover the nature of a microscope by looking through it and employing it. No, if there are basic indecomposable elements necessary for the possibility of experience, then there discovery must be founded either through necessary reasoning or through intellectual intuition or intuitive understanding as I call it. Kant famously rejects intellectual intuition and argues for the categories through their necessary presuppositional status for the possibility of experience. Because Kant rejects intuition there is no source of justification for the categories that cannot be challenged by asking for further foundation. This is the sort of trouble that may be caused by challenging whether the table of judgments is complete or necessary.

But a further question arises for Kant: is he proving that experience as a systematic understanding of reality, or empirical reality in Kant's case, is indeed possible, or only proving what must be the case if it were. In the first case we get the establishment of the claim that there is within our grasp a systematic understanding through experience. In the latter case we merely get an account of what kinds of elements would be needed for such a systematic understanding to come about, but without any real assurance that such elements exist.

On the side of space and time Kant seems to do even less to justify his claim that these are the forms of intuition. As was discussed in chapter one he appears to use a form of perception, a necessary perceiving, of what the form of intuition is like. But either this is an intuitive understanding of intuition or it is not. If it is a form of intellectual apprehension of the nature of intuition that is not based on reasoning then intuition appears to be ushered in through a back door. But lacking such intuition the claim that Kant makes about time and space amounts at best to their being two of the forms of intuition, or more skeptically, two of the forms of intuition encountered thus far in reflection on intuition. Neither conclusion is quite as strong as Kant intends the conclusion about the forms of intuition to be.

This insularity lurking in Kant's account of the necessary elements of experience has given rise to the charge that Kant's system amounts to a transcendental subjectivism. The elements of the understanding look like elements of our forms of judgment and the elements of the sensibility are clearly elements of our type of intuition. The constructions that are made from these elements we are then told never

can reach reality itself, but only provide an account of the phenomena as we encounter it. But this phenomena itself is something that is infused with the categories and forms of intuition so that the entire account of the elements of experience and even the objects that we come to know about appear to regress into the subject himself.

Peirce openly defended idealism in the early part of his career and indeed openly models his theory of experience on Kantian foundation as has been shown. But Peirce's philosophy developed in such a way that it became in some ways less and in some ways more grounded than Kant's. He rejects intuition early on which left him with what Murphey (1968) has called the failed attempt to ground experience in a hope for some distant, if not infinite, convergence of inquiry in the future.[203] Given the tenuousness of such a hope Peirce developed, independently it seems from Husserl's own research, a phenomenological method for deriving the categories. And then given this development he expounded the semiotic system which represents the systematic formal elemental structure of experience itself.

This move of Peirce's to ground the categories in external reality would solve the problems of a lurking subjectivism or insularity in the Kantian transcendental argument. And as I have stated, it was not too far removed from the style of argument that Kant employs regarding the forms of intuition. In both cases I have argued Kant and Peirce betray their aversion to intellectual intuition by claiming to perceive what is essentially and necessarily true about what appears.

[203] Murphey (1968, 13).

The advantage such a form of discovery gives to Peirce's account of experience and its systematic possibility is far-reaching: the criticism of insularity and subjectivism is barred at the outset. For if the categories are given, that is perceived in reality and grasped without inference, then there is no worry about whether the categories so derived are the categories of reality. There is no worry that these categories might just be the categories of our psychology or subjectivity. The same objectivity is transferred to Peirce's account of signs. The very purpose of the phenomenological method was to secure what is given intellectually. This is fully noted in Peirce's account of it as a sort of receiving what is blatantly obvious to oneself without any interpretation. We can read here for interpretation "any active involvement of the understanding." But the tradeoff that Peirce never successfully dealt with was the loss of the necessary status of the categories.

It is my contention that Peirce wavered between his early rejection of intuition of any kind and his later phenomenological method. I don't think that Peirce was ever willing to completely let go of his early rejection of intuition. But the implication for his later account of experience is not to be under-estimated. To the degree that the categories are not necessary, that is to the degree that it cannot be proved by Peirce on some grounds that these elements are elements of reality in general, everything that follows from them is infected with the lack of necessity. Even the semiotic system showing how some sign kinds are elements of others so that the combination of signs can make possible the construction of a sign of reality amounts to no more than a

hypothesis relative to the justification and security of the categories themselves that the sign divisions are based on.

This loss of apriori status to my mind is devastating to Peirce's ultimate success in continuing on the account of the necessary elemental conditions for the possibility of experience initiated by Kant. But it is not a complete loss. For, what Peirce was at least able to articulate was that a phenomenological method if developed correctly could avoid on the one side the subjectivity and insularity with which Kant's account of the necessary elements of experience was plagued. But in doing so he introduced a worry almost equally problematic: if the elements discovered only have at best a kind of aposteriori certainty, then it certainly remains possible that no philosophical account of experience is possible. Another way to put this is to say that when we say that we have experiences we cannot say with certainty what we mean by that. To put the same point in its Kantian formulation, to say that there are no necessary elemental conditions for the possibility of experience is to say that Reason will be unable to find the kind of unity in experience which makes it possible to unite it into a complete account of an object.

The tension that surrounds these accounts shows just how difficult constructing an account of the necessary elemental conditions for the possibility of experience is independent of intuitive understanding. It has been my contention that part of the difficulty in the accounts is the refusal to allow a conception of intellectual intuition to play any role as a necessary condition for the possibility of experience. We appear to be faced with a skeptical worries from two opposing directions: Kant states boldly that we can never know a thing in itself and then must show in what sense what he is calling

experience is really attached to objects and not merely a knowledge of what the understanding has constructed. On Kant's account even the organization of sensation is accomplished by the categories such that it is difficult to find anything in experience which is not the result of the activity of the understanding. The apriori nature of the elements of experience is at least preserved in intention by Kant which is important for the possibility of necessary unity. But it would be wrong to deny the worry created about whether and to what degree the categories are categories of reality. I have not taken it upon myself in this research to prove that Kant either overcomes or does not overcome this worry. I have merely used his account of the necessary conditions for the possibility of experience to set up how Peirce develops his own account. But the skeptical worry about the loss of relation to the thing in itself and the subject's influence over the construction of objects are real. In summary we may achieve apriority but risk losing relation to the world.

Peirce on the other hand at least in his later phenomenological method presses toward a real-world relation with his rather undeveloped but suggestive account of the process of receiving what is most basically and elementally true in what appears without any interpretation or use of what Kant might call the understanding. To the degree that what appears must necessarily contain these elements Peirce secures the basic elements of the world as it confronts us in experience. But because of the lack of development of an account of this faculty another kind of skepticism looms about the possibility of a philosophical account of experience. In Peirce relation to the world is

secured at the expense of apriority. But this means that the relation to the world is secured only contingently.

I have suggested that a rejection of intuition may have played a role in preventing Peirce from more fully developing the account needed to provide for the necessary elements of experience. In the final chapter of this research I do the following: first I look more closely at what Peirce and Kant both had to say about intuition especially insofar as they are worried about including it as a capacity or faculty presupposed by experience. For Kant that means examining passages where he states specifically why intellectual intuition is a non-starter. Peirce's rejection of intuition has been examined more fully in chapter two.

Once their concerns are stated fully in the form of arguments against the permissibility of intuition in an account of the possibility of experience I examine the development of just such a capacity in the early twentieth century phenomenologists of the post-Kantian variety. The goal here is to examine whether or not an account of intuition can be found which secures the necessary apriori status of the elements of experience but while avoiding the concerns raised by Kant and Peirce.

I depend heavily on my account of a revised notion of intellectual intuition on Deitrich von Hildebrand's *What is Philosophy?* (1991). Hildebrand studied under Husserl and was himself a phenomenologist. He likewise views phenomenology in the way that Peirce did: as the fundamental descriptive science.

Finally I reflect on how well this method might do at providing an account of how time, space, or the categories can be themselves understood as they are in Kant and

Peirce's accounts. Before moving to that chapter let me state as clearly as possible what I think is at stake in the attempt to provide an account of the necessary elemental conditions for the possibility of experience.

The goal is to provide a philosophical account of just how experience can be set on the path of a science in the sense of a unified body of knowledge through sensation. Is this an important goal? It seems to me that the question of the importance of such a goal may be ignored. It is a question that one can ask. But, we may also reflect on how desirous reason is, to use a Kantian phrase, of unity, and how our own practice of seeking a unified body of knowledge of our world is. Everywhere we look in the natural sciences where many are employing experience in as careful and efficient a way as is possible there is a hope that all of the pieces gained may be accumulated to form a body of knowledge as a unity. This is the hope of the community of inquirers to use a Peircean phrase. But even at the level of the individual there is expectation that what may be learned about a single object or phenomena may be accumulated and built into a unified body of knowledge for the individual of the object experienced. How is it possible for individual experiences to be combined according to Reason, and not merely arbitrarily combined? The Kantian answer is that Reason must find in experience the kinds of elements that are akin to Reason. It is not enough for these elements to be psychologically unifying, as would be the case if the elements were merely psychologically and universally infused into any experience. For then the unity is merely contingent.

To my mind Kant and Peirce both advance the cause of discovering a core set of elements that have the features of apriority and necessity. But those elements themselves are objects which can be known. Either we are barred from knowing the categories or the forms of intuition in and of themselves and so only know the appearance of them or we have a knowledge of these objects themselves. To my mind Kant places knowledge of these elements beyond doubt. But to this degree he betrays his own account of our contact with objects in the sense of the objects themselves. Peirce on the other side is not clear on just what the status of the categories is. He treats them as if they are in some sense beyond doubt. That is they are more than mere hypotheses to Peirce. And yet he provides no account of just how such a knowledge of these categories is possible given his other commitments to rejecting intuition. I hope to show that the only way to secure these apriori necessary elements is through including intuitive access. But such a notion must minimally withstand the concerns that Kant and Peirce both had with such a notion. It is toward the suggestion of such an account that I turn.

Chapter 5: Consequences of No Intuitive Understanding

In the foregoing chapters I have tried to reproduce faithfully the central necessary elements of experience found in the philosophies of Kant and Peirce. I have tried to show how Kant develops three essential elements necessary for the possibility of experience, how Peirce developed and also departed from the Kantian strategy, and what some of the worries are about both Kant's and Peirce's accounts. For me the most important concern is whether Kant or Peirce can claim legitimately the elements they themselves assert in their accounts of the necessary elements of experience without intuitive understanding.

Regarding Kant's account I must first acknowledge that I have not as thoroughly approached his account as I have Peirce's. But, part of my thesis is that Kant initiates a program that Peirce largely buys into and extends even more radically so that what shows up as a worry in Kant's account of the necessary elements of experience becomes something of a calamity in Peirce's account. Neither Kant nor Peirce were dogmatists but each sought to establish the necessary elements of experience and saw those projects to fulfillment as best they could. One way of understanding my project is to ask whether they have rightfully established what they claim to establish. It is only because I think much of their overarching strategy is on track that I subject either account to such scrutiny, but it has become increasingly apparent, and glaringly so in Peirce, that the

possibility of establishing the necessary elemental conditions for the possibility of experience hinges on a capacity that both Kant and Peirce in fact reject.

In chapter one on Kant I questioned the legitimacy of the claims Kant makes about the content of the forms of intuition. Specifically Kant claims that time and space are necessary forms of intuition. I noted there that Kant approaches both space and time like realities that have characteristics, characteristics that, according to Kant, are both essential and necessary. Whether they are forms of intuition or substances or relations they are according to Kant real in the sense of being something that has characteristics. Kant even invites his reader to approach space and time and to test their representation of them in order to confirm the characteristics he says are true of them.[204] I claimed that I could not make sense of how Kant could know *a priori* and what space or time were like without some encounter with their necessary and essential being. Sensible intuition will not be helpful for the task. But an intuitive understanding, one that has the capacity to penetrate the being of space and time and make possible such knowledge.

Further, the categories themselves, Kant claims, are not innate ideas. He speaks of them as being originally acquired which means that at some point they were objects for us. What I mean by this is that in some sense the categories themselves had to be received, had to be grasped, in order to be brought to acquired status.[205] But the categories themselves cannot be both acquired and that through which the understanding acquires. And with what resources the understanding, empty both of the

[204] Kant (1998, B38-B40, B46-B48).
[205] Longuenesse (1998, 222).

categories and any other innate ideas grasps such objects is almost unintelligible outside of a capacity for conforming oneself receptively to such realities.

To ask such questions of the Kantian philosophy, with its wealth of reasoning and argumentation for what follows the establishment of the forms of intuition and the justification of the categories for objects of experience, may seem unfair. But this is what I have come to worry about in a theory of experience which ignores all possible intuitive understanding. I noted also the troubling implication of Kant's theory that we can never know things in themselves and are thereby cut off from access to these realities. The alternative, that we only know the appearance of the categories or of the forms of intuition eliminates what Kant takes for granted in his discovery and elaboration of these elements of experience. The implication of my analysis was that a different kind of experience was necessary in order to establish the necessary elemental conditions of the possibility of experience in the sense of empirical judgment. Further, this kind of experience must be free of the contingencies and falsifiability of empirical judgment, otherwise it could not provide access to *a priori* necessary knowledge of the necessary elements that make empirical judgment possible.

Peirce rejects not only intuitive understanding as Kant does but also sensible intuition. His arguments against intuition were addressed in chapter three. Peirce tries to establish the categories through a method that I have argued is both in conflict with his earlier rejection of intuition and also inadequate for establishing the categories themselves even if this conflict could be resolved. That is, assume that Peirce no longer rejects intuition, that he no longer adheres as he did in his earlier writings to the

incomprehensibility of intuition, the phenomenological method that he embraces still will not establish the necessary categorical elements of experience. But a slight modification of Peirce's phenomenological method would explain how we can indeed discover the categories phenomenologically. Peirce vacillates between the idea of immediate experience and the inability to be immediately in relation to the nature of appearance itself. It's as if he is willing to establish the possibility of immediate relation, but then unwilling to allow for that immediate relation to inform us about anything beyond *this* or *that* appearance.

In what follows I look more closely at Kant's and Peirce's reasons for rejecting intuitive understanding. I also suggest a conception of intuition that would to my mind provide an answer to these problems at least by being the right kind of addition to the understanding if it were to originally acquire anything or to perceive without actively interpreting what it is perceiving. And last I suggest what the consequences are for the possibility of a metaphysics of experience if no such capacity exists as Kant and Peirce both believe.

5.2 Kant's Notion of Intellectual Intuition

Kant says the following about the possibility of intellectual intuition:

> For if I wanted to think of an understanding that itself intuited (as, say, a divine understanding, which would not represent given objects, but through whose representation the objects would themselves at the same time be given, or produced), then the categories would have no significance at all with regard to such a cognition.[206]

[206] Kant (1998, B145).

Kant equates the notion of intellectual intuition, or an understanding that intuits, with a divine understanding that would produce its objects through representation instead of only representing objects given from elsewhere. One of his worries about this possibility is that it would leave the categories themselves unnecessary since they would not be called upon to provide concepts for an object represented. Further when discussing the notion of a noumenon Kant claims that it is not a special intelligible object for our understanding but says that an understanding to which the concept of noumenon would belong is itself problematic because this understanding would cognize its object intuitively instead of discursively which "lies absolutely outside our faculty of cognition"[207] and "the possibility of which we cannot in the least represent."[208] Kant holds an attitude about intellectual intuition that Peirce extends to all intuition generally. But what is the ground for this rejection of the possibility of intuitive understanding? It certainly has not seemed impossible to every philosopher historically.

What is Kant's reason for his claim that the understanding is only discursive? It may be connected to the fact that we do not produce objects simply by thinking of them or at least this is true of material objects. What we can say definitively is that from start to finish the *CPR* is an argument which assumes that the understanding is discursive and that sensibility is intuitive. This is established as early as the end of the A-Introduction where Kant assumes that objects are given through sensibility but only thought discursively through the understanding.

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[207] Kant (1998, B308).
[208] Kant (1998, B312).

So, through this initial reflection we have two worries about the possibility of intellectual intuition: first, the categories are unnecessary. Second, Kant does not think we have the divine capacity to think and so give objects to ourselves. Taking the second worry first I am both unable to fully articulate this divine capacity and at the same time sympathetic to what I think is Kant's concern. When Kant says that we are unable to simultaneously think and have objects given to us it seems much more plausible that he is referring to material objects even though the term object in Kant seems usually to refer to a logical notion and not a material notion of objecthood. And while it is almost beyond doubt that we don't have intuitive understanding of individual material objects what is unclear is why based on the fact that we do not intuit material existence that a capacity for intuitive understanding cannot be a real capacity of humans and yet have a more limited range. In other words why discount intellectual intuition completely based on the fact that it cannot be extended to all objects. Might it be plausible that our intuitive understanding be real but limited to certain kinds of objects? As was suggested in earlier chapters it is plausible to imagine that we have intuitive understanding of some objects but not others. And Kant seems to display this in his work: truths about things in themselves we cannot know intuitively. Yet for Kant, truths about time, space, and categories are known without falling under the heading of things in themselves.

If we are to take seriously that the notion of object is simply that which thought is about, then one must include colors, sounds, attitudes, numbers, ideas or essences, relations, and even categories as potential targets of attention. And this is the point of my worry about the categories themselves. It seems that Kant's system implies that we

are never in touch with the categories themselves in as much as these categories may be objects of thought.

Another way to challenge the Kantian claim that humans have no capacity for intuitive understanding is to challenge the notion that such intuition must imply an active productive capacity. Kant seems to hold that the essence of the intellect or understanding is its spontaneous or active capacity. In fact for Kant the distinction between active and passive mirrors the distinction between understanding and sensibility. But there is certainly a much older tradition that recognized that the intellect or understanding itself has both an active and passive aspect. Aristotle says,

> The thinking part of the soul must therefore be, while impassible, capable of receiving the form of an object; that is, must be potentially identical in character with its object without being the object.[209]

It is this receptive capacity that Kant does without in his description of the understanding. But it is precisely this receptive capacity that would allow for the understanding to grasp or receive the categories so that they may be applied to objects. But to say that the categories are thinkable is to say that the understanding is "identical in character with its object", in this case the categories themselves, or the forms of intuition themselves. Without such a capacity it becomes mysterious just what relation the categories have to the understanding itself.

Aquinas also argues for a passive intellect in the *Summa Theologica*. He says,

> Thirdly, in a wide sense a thing is said to be passive, from the very fact that what is in potentiality to something receives that to which it was in potentiality without being deprived of anything.[210]

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[209] Aristotle(1941, 589).
[210] Aquinas (1941, Part 1, Question 79, Article 2).

Again the aspect of the passive intellect that I am interested in highlighting is the receptivity. Kant ignores the possibility of the understanding being passive or receptive in just this sense. And while there is no point in quibbling about names there is a sense in which intuitive understanding may be conceived differently if approached from the perspective offered by Aristotle and Aquinas. We might conceive of intellectual intuition not as an active productive capacity in line with its intellectual status, but as a receptive intellectual capacity in line with what Kant normally leaves for sensibility.

So, while we may agree with Kant that humans lack a capacity for producing objects simply by thinking them, something indeed we might only reserve for divine capacity, we do not by agreeing with Kant here also agree that the intellect or understanding must be conceived only as active. And what I am looking for here is a way to make sense of how when confronted with the forms of intuition like space or time or the categories themselves it is possible that one can know the essence of these objects and not be in a similar position to them that one is in to material objects on Kant's account. For, it is undeniable that he takes us to be in quite a different relation to these objects than we are to empirical objects.

Let us take the example of Kant's discussion of time from the Transcendental Aesthetic to illustrate what I take to be lacking in Kant's account. His familiarity with time, with its nature and character, with what it must be like, with what it is not, presupposes an experience of a particular sort. Clearly one's familiarity with time is not like one's familiarity with an empirical object, and in this sense I agree with Kant. That

time grounds all intuitions, that time itself cannot be removed, that it only has one dimension, that time is infinite each presupposes some encounter with time itself. But Kant, instead of arguing for these points simply offers an account of how they must be necessary elemental conditions for the possibility of experience and not merely generalizations drawn from experience. He says,

> These principles could not be drawn from experience, for this would yield neither strict universality nor apodictic certainty. We would only be able to say: This is what common perception teaches, but not: This is how matters must stand.[211]

The explanation has the character not of proof but of providing a way of preserving this account of time. In other words Kant seems to be saying, if it is to remain certain and necessary that time only has one dimension etc., then time must be given apriori and that can only be if it is a condition of experience. Otherwise we cannot say that this is how things must stand with time. But how do we know in the first place that time has the character that Kant gives it? The way the section on time reads is that Kant invites the reader to observe, instead of proving, that time has various characteristics, and then provides an account of just how those characteristics can be said to be necessarily true of time. But what he doesn't provide is how he has come to know with such certainty that time is in fact the way that he describes it.

I would like to make the same claim about the categories themselves. If, as I read Kant saying, we understand the nature of each category and grasp these concepts themselves and not just their appearance, then there is reason to think that the

[211] Kant (1998, B46-B48).

understanding understands them, not in the sense of producing them but by having the capacity to receive their meaning or nature and so to be able to determine that these and not other possible concepts are the primary concepts necessary for the possibility of experience. In other words it is not possible for the categories to escape the noumenal/phenomenal distinction. The justification for these and not other categories comes first from the clue that the table of judgments provides and then later Kant's arguments of the categories necessity for experience. On the other hand each of these categories is thinkable, yet not derived from experience, and not innate. The question then may be asked how and whether we are familiar with the categories themselves or only with their appearance.

Kant's answer is that they are originally acquired.[212] But there is a mystery here that Kant does not see fit to unravel. And yet the way the categories are presented in *CPR* leads us to believe that the categories themselves, the thing in itself if you will, is what we are familiar with. But a sensible intuition of the categories does not make sense within Kant's understanding of the categories. He says clearly in the section on the schematism: "no one would say that the category, e.g., causality, could also be intuited through the senses and is contained in the appearance".[213] And we need not presume a capacity to produce through thought the notion of causality in the way that the divine being might be presumed to be able to do through Kant's understanding of intellectual intuition. But an intellectual receptive capacity that might be impressed upon by the notion of causality would at least provide a capacity for understanding and

[212] Longuenesse (1998, 222).
[213] Kant (1998, A138/B177).

making possible the original acquisition. This would in turn strengthen Kant's response to Hume's skepticism about causality.

The worry that I am developing here is one that confronts Kant's theory of experience because he presumes the active/passive distinction in parallel with the distinction between understanding and sensibility. What I think that Kant takes advantage of is a notion of experience or of encounter with the necessary elements of experience which his theory of experience discounts at the same time. A well-known implication of Kant's theory of experience is that we only have empirical knowledge of appearances and never of things in themselves. But this implication threatens the very access to the necessary elements that seem to lead to the implication. In this sense I think that Kant cannot do without a notion of experience that is both passive and intuitive. But if such a problem looms for Kant as I have described he seemed unaware of it. His theory of experience does well with objects that we do not have intuitive access to. But it presumes access to other elements which themselves cannot have been accessed in the same way.

Peirce in one sense carries this project to its logical conclusion and in another sense seems to recognize the problem it ultimately caused him. So his theory of experience both advances the elimination of any kind of intuition in its early manifestation but then is adjusted in latter manifestations to deal with the problem that a lack of intuitive access to the categories caused his theory. In chapter two I presented Peirce's arguments against intuition.

5.3 Peirce's Rejection of Intuition Revisited

In chapter two I covered in more detail three of Peirce's arguments against intuition. I will summarize those arguments and the responses given and then organize those responses into a new picture of what an intuitive understanding might be like. The first argument was to the effect that we have no intuitive knowledge of intuitions since we make mistakes often about whether various cognitions are determined by their objects or by other cognitions.[214] Peirce offered several illustrations of where ordinary people fail to distinguish correctly between intuitions and cognitions determined by other cognitions. My response was that the list does not mean that there is no intuitive understanding. And the fact that there is no external mark of an intuition that sets it apart from cognitions determined by other cognitions is not problematic either. My response was twofold: it may be that we have intuitive understanding only of objects which allow for it. This presumes that reality is such that immediate relation to the essential and necessary character of an object may be possible in some cases but not in others.

Second, Peirce argued that we might establish the reality of intuition by arguing that it is necessary. He then argued that space and time could be accounted for without presuming the existence of an intuitive faculty. Peirce's argument involved showing that the conceptions of space and time would have arisen naturally from the need to unify the sensory manifold.

[214] Peirce (1992, 11-17).

My response was twofold: first, the fact that we can explain space and time as arising out of the need to unify the sensory manifold, as concepts rather than intuitions does not mean that it is true that they are concepts instead of intuitions. Peirce himself would later develop an abductive logic where he argued that the relation between a hypothesis explaining a set of facts and its being a true hypothesis is at best problematic. Peirce will press the point that we need not introduce a separate capacity of intuitive understanding to explain space and time if we can do it just as well with faculties we already know exist like sensation and Reason. But, chapter three showed us that Peirce does eventually find it necessary to argue for a kind of immediate relation to appearances in order to establish the categories.

At this point it may be that Peirce would respond that appearances are not objects, and so they are not intuitions since intuition is an immediate relation to objects. My response is that I think Peirce and Kant both have defined object too restrictively. An object should be, and often is by both Kant and Peirce, defined as anything that attention may be directed at. In this unproblematic sense, and because even Peirce finds it possible in his phenomenological method to attend to appearance and extract essential characteristics, appearances are objects. And according to Peirce our encounter with them is immediate.

The third argument that Peirce offers is that somehow intuition is an incomprehensible idea. “Accordingly, there can be no conception of the absolutely incognizable, since nothing of that sort occurs in experience.”[215] But what is experience

[215] Peirce (1992, 24).

here to mean? We can at least assert that Peirce is either maintaining a strong idealism by which experience is not the determination of consciousness by something outside of consciousness or it does include the notion of determination from outside consciousness. And given his other commitments to the incomprehensibility of "outside of consciousness" it seems he must be accepting, at this early stage in his career, a strong version of idealism.

First, Peirce himself will reject it later by including in his semiotic theory the notion of a dynamic object. Peirce introduced this idea in the later developments of his semiotic theory but it represents his mature assessment of what is necessary for the semiotic process:

> It is usual and proper to distinguish two Objects of a Sign, the Mediate without, and the Immediate within the Sign. Its Interpretant is all that the Sign conveys: acquaintance with its Object must be gained by collateral experience. The Mediate Object is the Object outside of the Sign; I call it the Dynamoid Object.[216]

But why did Peirce change his mind? Why did he view the Dynamoid Object as incomprehensible but later concede that not only is it comprehensible but such objects are required for semiosis to actually take place? The answer lies I think in the requirements for semiosis. Ultimately there is an object necessary for the semiotic process and without it no semiosis can take place.

I argued further in chapter three that what Peirce assumes for his evidence that things in themselves are incomprehensible because incognizable is precisely what Peirce was trying to prove. In other words the idea that no object could be in concsciousness

[216] Peirce (1998, 480).

assumes that there is no intuition. If there is intuitive understanding of an object in the sense of a receptive capacity that can grasp the essential and necessary nature of an object, then in some very legitimate sense the object itself, its necessary and essential character, is in consciousness. Now, we have already established the possibility that this intuitive understanding is not possible with every kind of reality that we encounter. But we should not allow the fact that intuitive understanding seems barred from ordinary individuals like bodies to exclude all objects from intuitive understanding. First, the fact that intuitive understanding does not work for all objects simply does not mean that it is not available to any. Second, Peirce himself acknowledges in his phenomenological method that such a contact with reality is possible.

5.4 Conclusions

The capacity that I see operative in the theories of experience of Peirce and Kant, but unacknowledged to greater or lesser degree is that of an intuitive understanding. Such an understanding or capacity of the understanding differs from the understanding normally conceived of by Kant in the following ways: it would not be a capacity that produces or is active. It is described as intellectual receptivity: the being impressed of one's mind or understanding by the reality of another object. Kant assumes such receptivity is limited to sensation.[217] Peirce eliminates it completely from his account of experience.

[217] Whether sensation may have its active analog to the passivity of the understanding here described is beyond the scope of this research, but suggested by the track taken here with the understanding.

Further we should not assume that an intuitive faculty will always immediately and successfully be impressed upon by the necessary and essential characteristics of objects it is in immediate relation with. So, the fact that we sometimes get it wrong or that we may not have intuitive access to an object at one time but may come to know it later is not evidence against intuition. In other words the intuition of an object does not have to be a result of a single encounter. I am not alone is such a supposition:

> To say that knowledge is apriori is not to say that it is obvious at first sight. These two expressions are by no means synonymous…But what has to be stressed is that in most cases the apriori state of facts can only be reached by delving deeply into the being in question, after a long and difficult philosophical analysis…Here it is sufficient to stress that many necessary and intelligible facts which philosophy lays bare through an apriori knowledge do not necessarily have this character of self-evidence.[218]

The point that von Hildebrand makes here is important for the current discussion: that a fact is necessary or apriori does not mean that it is self-evident. That it is known apiori does not prevent it from being the result of inquiry. Now if one concludes that one cannot ever reach an object itself, can never encounter the object itself immediately, then no amount of inquiry will be sufficient to lead one to the possibility of an intuitive grasp of an object. But usually one must first give reason for why there is no possibility of such contact and yet so far the argument has not been made.

On the other side both Peirce and Kant argue that we do have a grasp of some objects, not merely there appearance, and not merely mediated through other signs which might be fallible. These objects, namely, are the essential elements of experience themselves: categories, forms of intuition, schema, or signs; and there conceivably are

[218] von Hildebrand (1991, 136-137).

others. So, we may derive from their systems that there is some object that is reached itself, some reality that is accessed or grasped which provides the knowledge necessary to infer the rest. But this presupposes a capacity that neither Kant nor Peirce seem to allow for in their systems.

Another implication of this proposal is that we really need two accounts of experience. There is non-intuitive experience which is mediated by categories and signs and is infused with the active efforts of the mind. But on the other side there is intuitive experience. And this is an interaction with an object in which we are able to be impressed with the necessary and essential reality of the object itself. The objects that are the source of such experience are not in general material objects. They are the realities that make non-intuitive experience possible, but which cannot accounted for without intuition.

Last, I am struck by the division of objects or realities that begins to form. Two kinds of experience are distinguished according to their objects. In one case we have *highly intelligible* realities like cause and effect, the principle of noncontradiction, numbers, and the like which once grasped impress us with their necessary and essential reality. These are clearly different kinds of objects from the objects we encounter only with our senses, the necessary and essential character of which continually eludes us either because they lack none or because our intuitive understanding is incapable of immediate relation to it.

The goal of Kant's investigation into the necessary elements of experience is to put experience onto the path of systematic unified science. The possibility of

experiences being combined in such a way that it is possible for them to form a unified whole depends on their being constituted by common elements. And these elements must be necessary. We might include in the possibility of a unified body of experience both the possibility of combining experiences in an individual as well as experiences combined from different individuals.

What would it be like if there were no such necessary elements for the possibility of experience? That would mean that there could be no real and necessary unity brought to different experiences from different times and places. This is implied by the worry that an experience does not count as anything necessarily. This experience and that experience may have nothing in common being potentially not composed of any elements that are the same. That the elements of experience were contingent would allow for real and sustained incommensurability between experiencers. Certainly such possibilities are the subject of much debate in the philosophy of science. We have approached such possibilities from the vantage point of necessary elements. One way of summarizing the threat posed by the elements of experience being no more than contingent elements is skepticism about the possibility of there being anything that just is empirical judgment, or experience conceived of as knowledge.

I have argued that Kant and Peirce depend upon a faculty that they do not acknowledge in order to explain that experience is possible conceived of in the way that they do as *of objects*. They rely on an intellectual receptivity that I call intuition. What I have meant by that claim is that they represent themselves as knowledgeable about these elements in such a way that they have been in real and sustained contact with

those objects themselves. And without such real and sustained going along with the nature of those elements no integrating of them into their systematic accounts would have been possible. But if we do not include the idea of real and immediate contact with objects such as time or space, causality, sign, or elements of appearances than we are not able to uncover or display the characteristics that are true of them. Without these elements the possibility of experience as a unity is destroyed, and therein lies the absurdity. The tension created here is that we take seriously that experience is *of objects*. But without a philosophical account of how such is possible that particular conception of experience cannot be defended.

I have not answered whether such a capacity like intuitive understanding exists. I have only made the claim that no necessary elemental conditions of the possibility of experience will be discoverable without it. It may be that ultimately there is no such thing as experience *of objects*. On the other hand I have tried to articulate a conception of intuitive understanding that still leaves much work to be done. That we may lack intuitive understanding of some parts of reality and that intuitive understanding need not be considered immediately available both go to show that intuitive understanding does not solve all of our epistemological problems. But such a faculty is required for claiming to have apriori knowledge of experience itself.

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