

Addis Ababa University
School of Graduate Studies

*An Inquiry Concerning the Pragmatism of
Charles Sander Peirce*

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Mohammed zeinu Hassen

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ADDIS ABABA UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND HUMANITIES
DEPARTMENT OF PHILOSOPHY

***AN INQUIRY CONCERNING THE PRAGMATISM OF
CHARLES SANDER PEIRCE***

By
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**A Thesis Submitted To the School Of Graduate Studies Addis
Ababa University in Partial Fulfillment of the Requirement of the
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Acronyms to the works of Charles Sanders Peirce are as follows:

- **FB:** *Fixation of Belief*
- **CII:** *Cognition Intuition and Introspection*
- **WPI:** *What Pragmatism Is*
- **HMIC:** *How to Make Our Ideas Clear*
- **SCFI:** *Some Consequence of Four Incapacities*
- **QCCFCM:** Question Concerning Certain Faculties Claimed for Man
- **Ip:** Issues Of Pragmatism
- References to Peirce's collected papers follow this standard: for example, in (5.213), 5 represent the volume and 213 represent paragraph number in the first six volumes of the collected papers of Charles Sanders Peirce (Harvard University Press, Cambridge, 1931-1935) edited by Charles Hartshorne and Paul Weiss

The central thesis that I want to develop is this: *there should be an intrinsic connection between thought and action. I strongly believe that the key to deal with epistemological difficulty is to recognize that the truth is not something private or individual. Although I disagree with Peirce's position in holding that it is only the scientific investigators which determine what truth is, I agree with his notion that truth or knowledge is not an individual affair. Knowledge always involves cooperative undertaking.*

Introduction

Defining Pragmatism

What is pragmatism?

Charles sanders Peirce was a philosopher's philosopher. He was a practicing scientist, an outstanding logician, and a careful researcher of medieval philosophy and the history of science. He combined enormous erudition, creative scholarship, and a bold speculative imagination. His philosophic temper was both "tough minded" and "tender minded" (Richard.1980; v)

Pragmatism is a philosophical movement, developed in the United States, which holds that both the meaning and the truth of any idea is a function of its practical outcome. Fundamental to pragmatism is a strong antiabsolutism: the conviction that all principles are to be regarded as working hypotheses rather than as metaphysically binding axioms. A modern expression of empiricism, pragmatism was highly influential in America in the first quarter of the twentieth century. Pragmatism has tended to criticize traditional philosophical outlooks in the light of scientific and social developments. (<http://www.radicalacademy.com/amphilosophy7.htm>)

Charles Sanders Peirce is considered the founder of pragmatism, although later he changed the name of his philosophical position to *Pragmaticism*. He developed it as a theory of meaning in the 1870s, holding that an intrinsic connection exists between meaning and action that the meaning of an idea is to be found in its "*conceivable sensible effects*" and that humans generate belief through their "*habits of action*."(ibid.)

Peirce was a distinguished physicist, a scholar of erudition and originality. He borrowed the term "pragmatic" from Kant, and later William James took it over from Peirce. Kant, in the *Critique of Practical Reason*, used the term *pragmatic* to distinguish technique derived from and applicable to experience from those which he regarded as prior to or logically independent of experience or a priori principles. (ibid.)

Pragmaticism is the name given by Peirce to his own form of Pragmatism in order to distinguish it from the doctrines of other Pragmatists, with whom he was not in complete accord.

James borrowed the term pragmatism from his friend Charles Peirce, to designate his answer to the question "what is truth?" Truth is that property of belief by virtue of it "agrees with" the mind that holds it. Pragmatism is hence a theory about the nature of truth. The word is derived from the Greek *pragma*, meaning act or deed, and conveys the notion that a true belief is one upon which the mind can act; thus answering the question *what is truth* by reference to the facts which fall within the realm of human mind, since that is where ideas are and where their successful working occurs. (Albury, 1948; xiv)

According to William James the name as well as the idea of pragmatism was furnished by Mr. Peirce. Peirce has told us that both the word and the idea were suggested to him by a reading of Kant, the idea by the *Critique of Pure Reason*, and the term by the "*Critique of Practical Reason*." The article in the *Monist* gives such a good statement of both the idea and the reason for selecting the term that it may be quoted in extension. Peirce sets out by saying that with men, who work in laboratories, the habit of mind is molded by experimental work much more than they are themselves aware." (James; 1948, 13).

At this junction it is important to quote Peirce:

"Whatever statement you may make to him, he [the experimentalist] will either understand as meaning that if a given prescription for an experiment ever can be and ever is carried out in act, an experience of a given description will result, or else he will see no sense at all in what you say. (5.229)

Having himself the experimental mind and being interested in methods of thinking, Peirce framed the pragmatic theory on that a conception, that is, the rational purport of a word or other expression, lies exclusively in its bearing upon the conduct of life; so that nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and there is absolutely nothing more in it. For this doctrine, he invented the name Pragmatism.

After saying that some of his friends wished him to call the doctrine practiciness or practicalism, he says that he had learned philosophy from Kant, and that to one "who still thought in Kantian terms most readily, *praktisch* and *pragmatisch* were as far apart as the two poles, the former belonging to a region of thought where no experimentalist type can ever make, the latter expressing a relation to some definite human purpose. Now quite the most striking feature of the new theory was its recognition of an inseparable connection between rational cognition and human purpose. (1.53)

From this brief statement, it will be noted that Peirce confined the significance of the term to the determination of the meaning of terms, or better, propositions; the theory was not only a theory of the test, or the truth, of propositions. In his later writing, after the term had been used as a theory of truth, he proposed *Pragmaticism* to designate his original specific meaning. But even with respect to the meaning of propositions, there is a marked difference between his Pragmaticism and the pragmatism of, say, James. James says:

"The effective meaning of any philosophic proposition can always be brought down to some particular consequence, in our future practical experience, whether active or passive; the point lying rather in the fact that the experience must be particular, than in the fact that it must be active."(Albury, 1948; 34)

Now the curious fact is that Peirce puts more emphasis upon practice (or conduct) and less upon the particular; in fact, he transfers the emphasis to the general. But James put more emphasis on the particular. The following passage is worth quoting because of the definiteness with which it identifies meaning with both the future and with the general.

“The rational meaning of every proposition lies in the future. How so? The meaning of a proposition is itself a proposition. Indeed, it is no other than the very proposition of which it is the meaning: it is a translation of it. But of the myriads of forms into which a proposition may be translated, which is that one which is to be called its very meaning? It is, according to the pragmatist, that form in which the proposition becomes applicable to human conduct, not in these or those special circumstances nor when one entertains this or that special design, but that form which is most applicable to self-control under every situation and to every purpose. It must be simply the general description of all the experimental phenomena which the assertion of the proposition virtually predicts.” (5.259)

To put it differently, *pragmatism* identifies meaning with formation of a habit, or way of acting having the greatest generality possible, or the widest range of application to particulars. On the ethical side, *“the pragmatist does not make the summum bonum to consist in action, but makes it to consist in that process of evolution whereby the existent comes more and more to embody those generals . . . in other words, becomes, through action an embodiment of rational purports or habits generalized as widely as possible.”*(*ibid.*)

Here again we have the doctrine of *Pragmaticism* as a doctrine that meaning or rational purport resides in the development of habits or generalized methods, a doctrine passing over into the metaphysics of *synechism*. *Synechism* is a doctrine of Peirce which holds that everything is in continuous. It is a regulative idea in his philosophy but it is not an absolute metaphysical doctrine.

It will be well now to return explicitly to Peirce's earlier article. Peirce sets out, in his article on the *Fixation of Belief*, with the empirical difference of doubt and belief expressed in the facts that belief determines a habit while doubt does not, and that belief is calm and satisfactory while doubt is an uneasy and dissatisfied state from which we struggle to emerge; to attain, that is, a state of belief.

The scientific method of fixation has, however, certain rivals: one is that of *tenacity* constant recurrence, dwelling upon everything conducive to the belief, avoidance of everything which might unsettle it. According to Peirce, this method of tenacity breaks down in practice because of man's social nature. We have to take account of contrary beliefs in others, so that the real problem is to fix the belief of the community. Otherwise our own belief is insecurely exposed to attack and doubt. Hence there emerges the resort to the method of *authority*. This method breaks down in time by the fact that authority cannot fix all beliefs in all their details, and because of the conflict which arises between organized traditions. There may then be recourse to what is *agreeable to reason* a method effective in the history of philosophy, but a method which again fails to secure permanent agreements in society, and so leaves individual belief at the mercy of attack. Hence, finally, recourse to science, whose fundamental hypothesis is this:

"There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and . . . by taking advantage of the laws of perception, we can ascertain by reasoning how things really are, and any man, if he have sufficient experience and reason enough about it, will be led to the one true conclusion." (HMIC, 271)

It will be noted that the quotation employs the terms "reality" and "truth," while it makes them a part of the statement of the hypothesis entertained in scientific procedure. Upon such a basis, what meanings attach to the terms "reality" and "truth" Since they are general terms, their meanings must be determined on the basis of the effects, having practical bearings. Now the effect which real things have is to cause beliefs; beliefs are then the consequences which give the general term reality a "rational purport." And on the assumption of the scientific method, the distinguishing character of the real object must be that it tends to produce a single universally accepted belief. *"All the followers of science are fully persuaded that the processes of investigation, if only pushed far enough, will give one certain solution to every question to which they can be applied."* "This activity of thought by which we are carried, not where we wish, but to a foreordained goal, is like the operation of destiny... This great law is embodied in the conception of truth and reality. The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by the truth, and the object represented in this opinion is the real.

Summing up, we may say that Peirce's Pragmaticism is a doctrine concerning the meaning, conception, or rational purport of objects, namely, that these consist in his *pragmatic maxim*:

Consider what effect that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. Our idea of anything is our idea of its sensible effects. (5.402)

In other words, if we have any doubt as to whether we really believe our belief we have only to ask ourselves whether or not we should act any differently in their presence. In short, our own responses to sensory stimuli are the ultimate conception of an object.

Peirce is also less of a nominalist. That is to say, he emphasizes much less the particular sensible consequence, and much more the habit, the generic attitude of response, set up in consequence of experiences with a thing. He speaks as if in his later life he attached less importance to action, and more to "*concrete reasonableness*" than in his earlier writing. It may well be that the relative emphasis had shifted. For in his later doctrine, *concrete rationality* means a change in existence brought about through action, and through action which embodies in habitual attitudes of response. In his earlier writing, the emphasis upon habits, as something generic, is explicit. "*What a thing means is simply what habits it involves.*" More elaborately, "*Induction infers a rule. Now the belief of a rule is a habit. That a habit is a rule, active in us, is evident. That every belief is of the nature of a habit, in so far as it is of a general character, has been shown in the earlier papers of this series.*" (5.403)

The difference between Peirce and James which next strikes us is the greater emphasis placed by the former upon the method of science. As the quotations already made show, everything ultimately turned, for Peirce, upon the trustworthiness of the procedures of inquiry. Hence also his definite rejection of the appeal to the *Will to Believe* under the form of what he calls the method of tenacity. James maintains that:

Our passionate nature not only lawfully may, but must, decides an option between propositions, whenever it is a genuine option that cannot by its nature be decided on

intellectual ground; for to say under such circumstance, "do not decide, but leave the question open," is itself a passional decision, just like deciding yes or no, and is attained with the same risk of losing the truth. (James, 1956; 24)

The appeal in Peirce is essentially to the consensus of *those who have investigated*, using methods which are capable of employment by all. It is the need for social agreement, and the fact that in its absence "the method of tenacity" will be exposed to disintegration from without, which finally forces upon mankind the wider and wider utilization of the *scientific method*.

Finally, both Peirce and James are realists. The reasoning of both depends upon the assumption of real things which have effects or consequences. Of the two, Peirce makes clearer the fact that in philosophy at least we are dealing with the conception of reality whose meaning is itself to be determined in terms of consequences. That "reality" means the object of those beliefs which have, after prolonged and cooperative inquiry, become stable, and "truth" the quality of these beliefs is a logical consequence of this position. Thus while

"We may define the real as that whose characters are independent of what anybody may think them to be . . . it would be a great mistake to suppose that this definition makes the idea of reality perfectly clear (HMIC, 279)

For it is only the outcome of persistent and persistent inquiry which enables us to give intelligible meaning.. This is the pragmatic way out of the egocentric predicament. Do not a large part of our epistemological difficulties arise from an attempt to define the "real" as something

based not on reflective inquiry? The real is to which reflective inquiry is striving to reach so that belief will cling to it.

The structure of this thesis is as follows. In Chapter one, I articulate the concept of belief, doubt, truth and reality from the perspective of C.S Peirce. In Chapter two, I consider critique of metaphysics which is developed under the theme of meaning and habit. In Chapter three, I will examine C.S Peirce's critique of Descartes methodological doubt and Kant things-in-themselves.

Chapter one

1. Truth, reality, belief and doubt from the pragmatic point of view

1.1 Fixing belief

Peirce's famous formulation set forth pragmatism as a method for testing the meaning of any belief, idea, or term by means of analyzing the effects of its adoption on future conduct and belief. For Peirce, beliefs are guides for action. Beliefs typically endure until some reason for calling them into doubt arises. Once one is confronted by doubt, he or she needs to once again arrive at some belief or beliefs as guides to future actions. Peirce explicated four methods of "fixing" such beliefs: *tenacity*, *authority*, an *a priori* method, and *science*, or experimentation. Tenacity and authority refer to the clinging to old beliefs in the face of present doubt due to, respectively, personal or institutional commitments. An *a priori* belief is fixed solely by an appeal to some version of "reasonableness" or other already existing preferences. Experimentation, for Peirce, was the preferred method of fixing belief, entailing the testing of hypotheses against public and verifiable observations. (<http://science.jrank.org/pages/10825/Pragmatism-Charles-Sanders-Peirce.html>)

In the late 1870s Peirce published a series of articles in popular science monthly, in which the influence of scientific practice on this lifelong research is evident. He distinguishes four ways of coming to a fixed belief about some subject matter, four methods of settling opinion. These are techniques that can be used to arrive at what we think, at least, is true. They are ways of resolving doubt.

First there is a method of tenacity. If the aim is settlement of opinion, one might ask oneself:

Why should we not attain the desired end, by taking any answer to a question which we may fancy, and constantly reiterating it to ourselves, dwelling on all which may conduce to that belief, and learning to turn with contempt and hatred from anything which might disturb it?(5.248-249)

Those who adopt this technique enjoy certain benefit. For one, they avoid the uncomfortable states of indecision and doubt. “*It cannot be denied, Peirce says, that a steady and immovable faith yields great peace of mind*” (FB; 29). Moreover, there seems to be nothing that can rationally be said in objection, for such persons are content to set rationality aside, and reasons against their belief will be beside the point.

Nonetheless, Peirce believes that this is not a satisfactory method of settling opinion. His reason is an interesting one and sheds light on his pragmatism. One might think that the proper objection to the method of tenacity is that it is bound to leave one with too many false beliefs. But that is not Peirce’s objection. The trouble with this method is that it:

... Will be unable to hold its ground in practice. The social impulse is against it. The man who adopt it will find that other men think differently from him, and it will be apt to occur to him, in some saner moments, that their opinion are quite as good as his own, and this will shake his confidence in his belief.(5.250)

The right objection is that tenacity does not work. This thought, that other might well be as right as one’s self, arise from the “social impulse” Peirce says, “an impulse too strong in man to be suppressed” (FB, 250). We are in fact influenced by the opinion of the other. So some method must be found that will fix belief not only in an individual, but in the community.

This thought led us to the second method, authority.

Let an institution be created which shall have for its objects to keep correct doctrines before the attention of the people, to reiterate them perpetually, and to teach them to the young; having at the same time power to prevent contrary doctrine from being thought advocated or expressed. Let all possible cause of change of mind be removed from men's apprehensions. Let them be kept ignorant, let they should learn of some reason to think otherwise than they do. Let their passion be enlisted so that they may regard private and usual opinion with hatred and horror. Then let all men who reject the established belief be terrified in to silence. Let inquisition be made in to the manner of thinking of suspected persons, and, when they are found guilty of forbidden belief, let them subjected to some signal punishment. When complete agreement could not otherwise be reached a general massacre of all who have not thought in a certain way has proved to be a very effective means of settling opinion in a country. (5.252)

This method according to Peirce is much superior to the first; it can produce majestic result in terms of culture and art. He even allows that for the mass of human kind, there may be no better method than that of authority. But this method is also unstable: there will always be some people who see that in other age or countries, different doctrine have been held on the basis of different authorities. And they will ask themselves whether there is any reason to rate their belief higher than the belief of those who have been brought up differently. This reflection “give rise to doubt in their mind” (FB, 252). In the long run, authority does not work any better than tenacity in settling opinion.

The unsatisfactory character of the first two methods give rise to the third, which Peirce calls both the method of *natural preferences* and the *apriori method*. Here we accept what seems obvious or agreeable to reason, or self evident or clear and distinct. Our opinions are neither those we just happen to have at the beginning nor those imposed by authority; they are those we arrive at after reflection, conversation with other.

The best example of such method, Peirce thinks, is the great metaphysical systems from Plato to Hegel. But history seems to show that one person's self evident is another's absurdity, and the method:

Makes of inquiry something similar to the development of taste; but taste unfortunately, is always more or less matter of fashion, and accordingly metaphysicians have never come to any fixed agreement, but the pendulum has swung backward and forward between a more material and more spiritual philosophy, from the earliest time to the latest.(5.253)

Again we have an unstable and hence unsatisfactory method for settling opinion. What we need is some method.

By which our belief may be caused by nothing human, but by external permanency, by something up on which our thinking has no effect ...it must be same thing which affects or might affect every man. And, though these affections are necessarily as various as individual conditions, yet the method must be such that the ultimate conclusion of every man shall be the same. Such is the method of science. Its fundamental hypothesis, rested in a more familiar language, is this: there are real things whose character are entirely independent of our opinion about them; those realities affect our senses according to regular laws, and, though our sensation are as different as our relation to the object yet,

by taking advantage of the laws of perception, we can ascertain by reasoning how things really are, and any man, if he have sufficient experience and reason enough about it, will be led to one true conclusion.(5.253-54)

Several features of the fourth method, the method of science, are distinctive. First there is the attempt to make our belief responsive to something independent of what any of us thinks or would like to think; in various ways, the first three methods lack precisely this feature. Second, we see that the method of science is decidedly a public method: there is to be no reliance on what is peculiar to you or to me; our beliefs are to be determined by what can affect you and me and anyone else who inquires. Again this public character is lacking in the first three methods, third, because of this essentially public character, the social impulse will not undermine opinion that is settled in this scientific way.

Peirce's conception of science, however, rests on an assumption, or hypothesis that there actually is some reality independent of our thinking. Suppose we ask, why should we grant this assumption? For one thing, the practice of science does not itself lead us to doubt the assumption; indeed, Peirce holds the method "*has had the most wonderful triumph in the way of settling opinion*" (FB, 254). In this regard, too, it is strikingly different from the other methods: it works. But the fundamental reason to grant this assumption has to do with the very nature of belief and doubt.

1.2 Belief and doubt

We have been examining method of fixing belief or settling opinion. But what is it to have a belief? And what is it to have a doubt? Doubting and believing are different but how? Peirce finds three differences. First, the sensation of believing is different from that of doubting: they

just feel different. Second we are strongly disposed to escape doubt but are content when we have a belief at least until we are led to doubt by some surprise the world has in store for us. Third, the most profound difference, however, gets us to the very nature of belief and doubt. For a belief is a habit, and doubt is the lack of such a habit. This needs explaining.

Do you believe the world is round? Let us assume that the world is round. What is to have such a belief? It is not a matter of having such a thought in your mind; presumably, you have believed this for a long time, although you have not been constantly thinking that thought. And it would be wrong to say that you believed it only when you had this thought actively in mind. Belief Peirce says “*is not a momentary mode of consciousness*” (5.279). Nor does it make us act at once, but *put us in to such a condition that we shall behave in a certain way, when the occasion arises*. (FB, 247). So if you believe the world is round, you are in a condition that leads you to behave in the following way: if somebody asks you whether the world is flat, you say, “no it is round”; if you win a trip around the world you accept it gladly; if you see a picture of the world taken from a satellite, you say yes that is what I expected it would look like. To have a belief is to have a habit that allows you to act confidently in the world, expecting that your action in given circumstances will fulfill their purpose.

Doubting on the other hand, is being in an uncertain state and it is the lack of settled habit and so involves not knowing what to do in a given situation. That is why we struggle to escape doubt; it is essentially an anxious state. Peirce calls the struggle to escape doubt and attain the condition of belief *inquiry*. Inquiry then is an attempt to recover the calm satisfactoriness of knowing: what to do in a given situation which is the characteristic of belief. And Peirce is convinced that only the *public intersubjective method of scientific inquiry* will work in the long run to carry us from doubt to fixed belief.

Three things are essential to inquiry: a stimulus (doubt), an end or goal (settlement of opinion), and a method (science). We need to explore further each of the first two factors

We might also wonder whether Peirce has correctly identified the end of inquiry. Can the settlement of opinion really suffice as the end or goal of our inquiries? Is not that being satisfied with a little? We are inclined to think what the truth is and what constitute the reality.

1.3 Truth and reality

Peirce holds that we invariably think each of our belief to be true as long as we have no cause to doubt them. It is only in that uneasy state of doubt that we wonder about the truth of our beliefs. If we are satisfied with a belief we come to, what sense does it make to wonder whether we might still be false? If our belief is fixed we would not know what else to do in determining whether it is true or false.

Finally, Peirce asks us to consider what we mean by “true”

If your term truth and falsity are taken in such senses as to be definable in terms of doubt and belief and the course of experience (as for example they would be if you were to define the truth as that to a belief in which belief would tend if it were to tend indefinitely towards absolute fixity), well and good: in that case, you are only talking about doubt and belief. But if by truth and falsity you mean something not definable in term of doubt and belief in any ways, then you are talking of entities whose existence you can know nothing, and which Ockham’s razor would clean shave off. (WPI, 279)

What motivates these doubts that we raise occasionally even when we are satisfied with our belief? It is the suspicion that our belief may not, for all their practical usefulness, correspond with the reality, that reality may, for all our care and investigation, still be quite different. And this might be the case, we suspect, even if we could in no way discover the discrepancy. But if that is what we mean, Peirce says, then we are talking of entities of whose existence we can know nothing.

We do not and cannot stabilize our belief, Peirce argues, by noticing they are true by saying that they correspond with the fact. We never do see this. The question is this: can we get a pure perception of the fact, mixed by any previous theorizing? Can we see the fact bare, or uncontaminated by any previous cognition? This is what would be necessary, if it were practicable, to settle our belief by seeing whether they correspond to reality. We would have to be able to apprehend the fact quite independently of any belief we already have and then compare that fact with our belief. All our cognition, beliefs, hypotheses, theories and understanding are independent on other item of that same kind; none of them provides a test of correspondence with a fact independent of the belief we already have when we have an experience of that fact.

It would be easy to draw a wrong conclusion from this claim, however. It would be easy to suppose that this makes impossible the understanding of those external permanencies which it is supposed to be the task of science to discern of those things “*up on which our thinking has no effect*” (FB, 254). But Peirce remarks that although

Everything which is present to us is a phenomenal manifestation of ourselves this does not prevent its being a phenomenon of something without us, just as a rain bow is at the same time a manifestation of both rain and sun. (CII, 169)

What Peirce argument does do, however, is to undercut any claim to be certain about a belief on the ground that it represents a pure intuition uncontaminated by prior cognition. He has given up the project of basing our knowledge on foundation of absolutely certain truths in any case. What count again, is whether we have a method to improve our belief, not whether we can be certain of them.

But now we must ask, how does Peirce thinks of truth? If we cannot understand fixation of belief in terms of the attainment of truth, he suggest we try to define truth in terms of belief and doubt. He offers several attempts at such a definition:

The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by the truth. (HMIC, 273)

...that to a belief in which belief would tend indefinitely towards absolute fixity. (WPI, 279)

... a state of belief unassailable by doubt. (ibid.)

Note that each of these definitions makes truth dependent on the state belief and doubt. A true belief according to them, is a fixed belief not fixed for a moment, but absolutely fixed, not just undoubted, but unassailable by doubt. The truth about some subject matter is what investigators using scientific method, if they were persistent, would eventually come to agree up on. That is what truth means.

Let's draw out some consequences. The truth is a kind of ideal, one for which we strive in our inquiry. Since it is what the investigator will agree up on, no present agreement, no matter broad and deep, can suffice to give us absolute confidence that what we now believe is true. It is always possible that further investigation will upset present belief. Nonetheless it is quite possible that many of our present belief are true. What does this mean? This mean that many of our beliefs are ones that future investigator will continue to reaffirm in the light of their inquiries; these beliefs are in fact unassailable by doubt because the world holds no surprise that will upset them.

Note, moreover, the truth is something public. It is not the case that truth is relative to individual or cultures. Evidence may be relative in such a way, and what an individual has good reason to believe may differ from what another has good reason to believe, because the one may have access to evidence that the other lacks. But we do not have reason to claim for certain that our beliefs are true just because we believe them. It is the community of inquirers that defines what is true, not any individual.

We can see how this understanding of truth fit in with Peirce's practicalism by noting a further implication.

Belief, being habit, invariably led to conduct in conjunction with desire that moves us to act. For example we assume that there is a hamburger before us and being hungry, pick it up and take a bite. The belief is a true one, if we act on it, our desires can be satisfied and not be frustrated. If, however, I bite in to rubber which looks like burger, my belief is a false one; the falsity is testified to by the fact that my action does not satisfy my desire to eat. True beliefs, then, are those that can be relied on in our practical activity in the world.

It is in terms of truth that Peirce thinks we must also understand the concept of reality. What do we mean by the real? Peirce says that we may define it as

that whose characters are independent of what anybody may think them to be. (HMIC, 271)

But though that is a perfectly correct definition, it is not a very helpful one. It does not tell us how to recognize reality or give us any instruction about how to find it.

A more satisfactory explanation can be given in terms of the belief fixed by the method of scientific investigators or that which the scientist are convinced at different lines of inquires will come eventually the same result.

One man may investigate the velocity of light by studying the transmit of venues and the aberration of the star: another by the oppositions of mars and the eclipse of Jupiter's satellites; a third by the method of Fizeau: a fourth by that of Foucault; a fifth by the motion of the curves of lissajous; a six, a seventh, an eighth, and ninth, may follow the different method of comparing the measure of statical and dynamical electricity. They may at first obtain different result, but, as each perfect his method and his process, the result will move steadily together towards a destined centre. So with all scientific research. Different minds may set out with the most antagonistic view, but the progress of investigation carries them by a force outside of themselves to one and the same conclusion. This activity of thought by which we are carried, not where we wish, but to a foreordained goal, is like the operation of the destiny. No modification of the point of view taken, no selection of other facts for study, no natural bend of mind even, can enable a man to escape the predestinate opinion. This great law is embodied in the conception of

truth and reality. The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by the truth, and the object represented in this opinion is the real. This is the way I would explain reality. (HMIC,273)

According to this view, reality is what true opinion says it is. And true opinion is that opinion which further scientific inquiry will never upset. But there is a problem. Does not this understanding of reality make it dependent on us in a way that the former definition (in terms of what is independent of what any one may think) does not? Has not Peirce contradict himself here? He says that:

Reality is independent, not necessarily of thought in general, but only of what you or I or any finite number of men may think about it. Though the object of the final opinion depends on what that opinion is, yet what that opinion does not depend on what you or I or any man thinks. That would not change the nature of the belief, which alone could be the result of investigation carried sufficiently far; and if, after the extinction of our race; another should arise with faculties and disposition for investigation that true opinion must be the one which they would ultimately would come to. "Truth crushed will rise again" and the opinion which would finally result from investigation does not depend on how anybody may actually think. But the reality of that which is real does depend on the real fact that investigation is destined to lead, at least, if continued long enough, to a belief in it. (Ibid, 274)

Reality, then, can be independent of the inquiries of any finite number of individuals and yet be what would be revealed in inquiry, provided that inquiry is designed to be sensitive to what is independent of the investigator, which is provided that inquiry is scientific. For Peirce, then,

science is the criterion of the real; not science as it exists at any given stage, of course, but that ideal science toward which scientific activity is even now moving.

The real then is that which sooner or later information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. The very origin of the conception of reality shows that this conception is essentially involves the notion of the community, without definite limits, and capable of definite increase of knowledge. And so those two series of cognition the real and the unreal consists of that which, at a time sufficiently future, the community will always continue to reaffirm; and of those which, under the same condition, will ever after be denied. Now a proposition whose falsity can never be discovered, and the error of which therefore is absolutely incognizable, contains, up on our principle, absolutely no error. Consequently, that which is thought in these cognitions is the real, as it really is. (SCFI, 186-87)

Two comments: first, Peirce is here denying the Kantian, we will come to this point in chapter three, doctrine that we cannot know things as they really are, but only as they appear to us. There are no essentially hidden things-in-themselves; things are as they reveal themselves to inquiry. Second, his ground for affirming that we can know things as they really are is the principle that there is no error possible where it is impossible to discover it.

When we summarize the main themes we have examined so far, it goes by the name of fallibilism: a readiness to acknowledge that one's knowledge is not yet completely satisfactory, together with an intense desire to find things out.

1.4 Inquiry

The Fixation of Belief contains a phrase, namely, *the method of science* (5.384). In what follows I should like to clarify the sense of that phrase in the context of Peirce's philosophy.

To accomplish this task I will highlight the line of argument Peirce uses to show that the method of science is the most reliable manner for settling our beliefs. This is necessary because the sense of the premises obviously determines the sense of the conclusion. I shall follow that with an outline of the manner in which Peirce, in his later years, treated the *three forms of inference which constitute scientific method*. Finally, I shall try to show the relevance of Peirce's reflections on the forms of inference.

More specifically, I use the phrase *scientific method* not in strict sense but in its general sense. In other words, I shall argue that if the phrase *the method of science* is taken in the same sense in which it is usually applied in the physical sciences, then this essay does not argue in a manner calculated to fix our beliefs about method. There are two major steps in the argument of *The Fixation of Belief*: (1) the establishment of a norm for selecting or judging the worth of a given method of inquiry, and (2) a survey of methods that have been used to determine which best satisfies the accepted criterion.

There are two pivotal notions in the establishing of a norm for judging the methods of fixing belief, namely, belief and inquiry. Since the latter is defined in terms of the former, belief must be considered first. A belief is a proposition to which we give assent, or to which we agree where the agreement indicates that we are satisfied with the proposition to such an extent that we are willing to act upon it.

We have to notice that the opposite of the state of belief is the state of doubt, not, as we might expect, the state of disbelief. Disbelief is simply the state of believing the opposite. One who is committed to, assents to, the opposite position is called a disbeliever. This use of the term is more common in the contexts of religious belief and disbelief, and it is important to bear in mind that Peirce is not using the term in such a restricted sense. The state of doubt, then, is a condition in which we withhold assent to a given proposition or its opposite because we are not yet satisfied with its status. As a result of this dissatisfaction we will be hesitant to act upon the proposition.

Having noted that inquiry is to be looked upon as the means to attain the state of belief, we now come to the crucial and controversial step in the development of the argument. He writes:

The irritation of doubt is the only immediate motive for the struggle to attain belief. It is certainly best for us that our beliefs should be such as may truly guide our actions so as to satisfy our desires; and this reflection will make us reject every belief which does not seem to have been so formed as to insure this result. But it will only do so by creating a doubt in the place of that belief. With doubt, therefore, the struggle begins, and with the cessation of doubt it ends. Hence the sole object of inquiry is the settlement of opinion. We may fancy that this is not enough for us, and that we seek not merely an opinion, but a true opinion. But put this fancy to a test, and it proves groundless; for as soon as a firm belief is reached we are entirely satisfied, whether the belief is true or false. And it is clear that nothing out of the sphere of our knowledge can be our object, for nothing which does not affect the mind can be the motive for mental effort. The most that can be

maintained is that we seek for a belief that we shall think to be true. But we think each of our beliefs to be true, and, indeed, it is a mere tautology to say so. (5.375)

Here Peirce is proposing that an inquiry comes to an end when we recover the state of calm and equilibrium which is characteristic of the state of belief. This is something that is not likely to be accepted by the common man, who may admit that inquiry begins in doubt, but would want to claim that our goal is "Truth", and not merely a settled state. Peirce's answer to this objection, given above, may be expanded in the following manner. The decision about the truth or falsity of a given proposition must be in terms of what is available to the knowing subject. But there is nothing available to us except what is mediated by our knowledge. Hence truth cannot mean more than what we think to be true. Put in another way, we have no independent access to the objects of our knowledge so that we could compare the object to our knowledge of the object to ascertain their conformity or lack of it.

It may seem that Peirce is merely taking a familiar and easy subjectivist position and is denying the possibility of objective knowledge. His point is that the introduction of the notions "Truth" or "objective knowledge" does not provide us, in the beginning, with an effective criterion for judging which of our beliefs are true and which are false. If we would try to think ourselves back into a primitive condition we might be able to understand that the question of truth or falsity, and following that the question of objective truth, is not something that can arise on the occasion of our first judgment. The awareness of falsity comes only when we find that what we once thought to be true is fitting to lead us into a troublesome situation or to conflict with some new and different belief.

The conclusion from Peirce's survey of the methods of fixing beliefs is that we should put our trust in the method of science. However, it should be noted that in the course of the discussion there has not been any detailed discussion of the elements of the method. It has merely been mentioned in general terms. In his famous essay, *How to Make Our Ideas Clear* he insists on the necessity for predictable sensible effects from any meaningful hypothesis.

This leads to reflection on Peirce's views on inference as they emerge in his later papers. These are induction, deduction and abduction. One major change is that, while he is still equally insistent on the irreducibility of the three processes of inference. He treats of them as moments in the process of arriving at conclusions. They are not three separate ways of reaching conclusions. Rather, each contributes, in its own way to establishing a conclusion. For the sake of completeness here I will treat briefly of the three forms of inference. Because it is familiar such a treatment will be adequate for our purposes.

A brief description of abduction is given in the *Lectures on Pragmatism*, where Peirce writes: *Abduction is the process of forming an explanatory hypothesis* (5.171). When we are faced with a surprising situation, we seek an explanation or cause of such an occurrence. Where this seeking is conducted in a conscious manner, and thus opens to self-control, the process is called abduction.

If you carefully consider the question of pragmatism you will see that it will nothing else than the question of the logic of abduction. That is, pragmatism proposes certain maxim which, if sound, must render needless any further rules as to the admissibility of hypotheses to rank as hypotheses, that is to say, as explanation of phenomena held as hopeful suggestion; and furthermore, this is all that the maxim of pragmatism really

pretend to do so, at least so far as it is confined to logic, and is not understood as a proposition in psychology. But that pragmatism cannot interfere with induction is evident; because induction is simply teach us what we have to expect as a result of experimentation, and it is plain that any such expectation may conceivably concern practical conduct. In a certain sense it must affect deduction. Any thing which gives a rule to abduction and so put a limit upon admissible hypotheses will cut down the premises of deduction. But to affect the premise of deduction is not to affect the logic of deduction. (5.196)

Peirce speaks of this process of forming an explanatory hypothesis as logical because it is a controlled process of thought and there is a sense in which we can speak of its validity or invalidity.

To conclude, for Peirce the human mind is neither fixed nor static. It is the most complex set of power and capacity that stand related to a unified person seeking to live a purposeful life in an evolving universe. The mind moves between the pole of doubt and belief. The former marked by the uneasiness, restlessness, and hesitation in overt action and when we are in doubt we are not sure how to move. Belief, on the other hand, means confidence, resolution and that sort of adjustment. Between doubt and belief stands inquiry. Inquiry, investigation, testing, experience and experiment are all names for the middle term, the means or bridge over which we are to pass from doubt to belief.

Two things here are all important to assure oneself and to remember. The first is that a person is not absolutely an individual. His thoughts are what he is saying to himself that is saying to that other self that is just coming in to life in the flow of time. When one

reasons, it is that critical self that one is trying to persuade; and all thought whatsoever is a sign, and is mostly of the nature of language. The second thing to remember is that the man's circle of society is a sort of loosely compacted person, in some respect of higher rank than the person of an individual organism. It is these two things alone that render it possible for you to distinguish between absolute truth and what you don't doubt.

(5.421)

This means, according to Peirce, unless a man is isolated, completely independent, prejudiced, and confine to his own private opinion, he would in the long run come to believe the warranted result of objective inquiry. The process of knowledge for Peirce is not an individual affair. Inquiry requires many individuals involving in the cooperative undertaking. Progress in knowledge depends on communication, comparison, and criticism of results. This means the work of science is not achieved by any individual or group alone, but only by the cooperation of many individuals and groups.

Furthermore, for Peirce, the attainment of critical conclusion requires that each individual investigator capable of transcending his private opinion and interest. The scientific community is defined by the willingness of each individual member to sacrifice what is personal and private in order to follow the dictate of an interpersonal method that involves free exchange of views and results.

Chapter two

2. Habit and meaning; critique of metaphysics

2.1 Meaning

Intellectual concepts are

Those up on which reasoning may turn and reasoning turn up on the idea that if one exert certain kind of volition , one will undergo in return certain compulsory perception.

(5.8)

This means that Peirce has reserved the word intellectual for those concepts which are subjected to experimental verification.

Peirce says that:

Pragmatism is, in itself, no doctrine of metaphysics, no attempt to determine any truth of things. It is merely a method of ascertaining the meaning of the word and of abstract concepts. (SP, 317)

We have already seen this method at work on the concept of belief and doubt, truth and reality. Peirce restricts his doctrine of meaning to what he calls *intellectual concepts*, which he contrasts with *mere subjective feeling*. An intellectual concept is any concept “*up on the structure of which, arguments concerning objective facts may hinge*” (SP, 318). Examples are concept like hard. In order to understand better about intellectual concepts, we need to see how Peirce characterizes subjective feeling.

Had the light which, as things are, excites in us the sensation of blue, always excited the sensation of red, and vice versa, however great difference that might have made in our feeling, it could have made none in the force of any arguments. The quality of hard and soft strikingly contrasts with those of red and blue which is subjective feeling only, hard and soft express the factual behavior of things under the pressure of knife edge... my pragmatism nothing to do with qualities of feeling, permits me to hold that the predication of such qualities is just what it seems, and has nothing to do with anything else. (SP, 318)

Peirce is here expressing a version of a thought experiment called the *inverted spectrum*. It is often given in two persons setting. Suppose the sensation I have when I see a ripe tomato is qualitatively identical to the sensation you have when you look at the sky on the clear day, and vice versa. Could we discover it? Apparently we could not, since you cannot directly access my sensation, nor I yours and everything else would be the same. I have learned to call ripe tomato red despite the fact that the sensation yet produced in me is the sensation you call blue. If someone asks me to bring something red, might bring a tomato. And I would call the sky blue even though the sensation I have when I look at is the same as the sensation you have when you looking at a ripe tomato. Such an inversion of qualities would make absolutely no difference to our behavior our language, our reasoning, or our science. They are mere subjective feelings only. In a fairly clear sense, such sensations have no meaning. Nothing else depends on them.

When we contrast such sensation with the quality of hardness, whether something is hard makes a difference to all those things sensation do not affect: our behavior, our language, our reasoning, and our science. Hard is a good example of an intellectual concept. It has implication that must

be understood if we are to understand the concept. If you do not understand that a knife edge will not easily divide a hard object, you do not understand what hard means.

These implications have to do with the behavior of the objects that are correctly called hard. They will behave in certain ways under certain circumstances. Indeed, even if a knife edge is never actually drawn across an object, to call it hard is to imply that if a knife edge were put to it, it would not divide it easily. So the implication of an intellectual concept include what Peirce call the *would Bes* and the *would dos* of object to which the concepts are applicable. These would-bes and would-dos, are of course, nothing else than habits or dispositions. The rock has a disposition to resist a knife edge; and by virtue of this disposition it is rightly called hard.

We have looked at one example of an intellectual concept and have noted the ways in which it is contrasts with pure subjective sensation. Only the former has meaning. But now we should ask, how can we decide what an intellectual concept mean? And this is the same as to ask, how can we make our ideas clear?

The very first lesson that we have a right to demand that logic shall teach us is, how to make our ideas clear; and a most important one it is, depreciated only by minds who stand in need of it. To know what we think, to be master of our own meaning, will make a solid foundation for great and weighty thought...it is terrible to see how a single unclear idea, a single formula without meaning, lurking in a young mans head, will sometimes act like an obstruction of inert matter in an artery, hindering the nutrition of the brain, and condemning its victim to pine away in the fullness of his intellectual vigor and in the midst of intellectual plenty.(HMIC,260-61)

Peirce distinguishes three grade of clearness in ideas. We may first “*have such an acquaintance with the idea as to have become familiar with it and to have lost all hesitancy in recognizing it in ordinary cases*” (HMIC, 258). If we can identify a sample of quartz, for example, among verities of stones presented to us, then quartz is clear to us to this first degree. A second grade of clearness is provided by verbal definition, such as one finds in a dictionary and could memorize. But to attain the third grade of clearness, we must follow this rule:

Consider what effect, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.(HMIC,266)

Let us examine this rule carefully. The first thing to note is that the meaning of an intellectual concept is always something that itself has meaning. Meanings are not things; they are not brute facts; they are not sensations or actions. If you ask what hard means, it is not a proper answer for me to clunk you on the head with a rock. Or, if I do, then the meaning of hard is still not the rock; nor is it the sensation you felt when you were struck. The word hard is a sign, and its meaning must be another sign.

Next, consider the idea of effects, which might conceivably have practical bearings. If we ask what hard means, we are asking for a conception that can apply to objects that are hard; we are asking what effect these objects have that we can notice, that is, have some impact up on us, for instance, that they will not be scratched by many other substances.

And finally, note that Peirce holds that the whole of our conception of these effects is the whole of the conception we are trying to clarify. There is nothing in our conception of hard beyond our conception of these effects. Peirce offered a procedure:

Proceed according to such and such general rule. Then, if such and such concept is applicable to such and such an object, the operation will have such and such general result; and conversely. (SP, 331)

This is a formula for what is sometimes call *operational definition*. Note that application of this procedure will always have two parts: there will be an oration performed and a result observed. Let us see how it might work in the case of hard. We can define “x” is hard in this way: if you apply a knife edge to cut, you will not cut it. If you throw “x” forcefully at a window, the window will break. If you press your hand on “x”, x will resist the pressure of your hand.

Note that in each case the structure is the same: an operation is specified, and a result is observed. Some action is performed and in consequence we have an experience of some kind. Note also that an indefinite number of such tests can be made, and all of them together make up the meaning of the concept hard.

By employing such operational definition, we can attain the third grade of clearness in ideas. With such clarity we cannot only apply the concept to familiar example or give a verbal definition, but also clear away the fogginess that so often seems to surround our ideas. We sometimes hear that we know how gravity works, that is, we know its law, but we do not know what it is. The same is sometimes said of force, that we understand its effect, but not what it is. But according to Peirce, this is just confusion. Once we know the laws of gravity and the equation of force, once you can predict the result of certain operation correctly so that your experience confirms your prediction, you know what gravity and force are; for there is nothing more in your idea of them than these effects, which you admit, you are clear about.

The idea which the word force excites in our minds has no other function than to affect our actions, and these actions can have no reference to force otherwise than through its effects. Consequently, if we know what the effects of forces are, we are acquainted with every fact which is implied in saying that a force exists, and there is nothing more to know (.HMIC, 279)

We have already seen this procedure at work, clarifying our ideas of belief and doubt, truth and reality. Let's review. In what does your belief that the earth is round consist? The answer is given in terms of operation and result: if you are offered a trip around the world, you will not say, "what? Are you crazy?" what does it mean to doubt whether a certain food is spoiled? If it is offered to you, you will be uncertain to eat it. What is for a belief to be true? If the community were to inquire sufficiently long enough, there would come a point where the belief would stabilize. What do we mean when we claim that something is real? That inquiry concerning it would survive all possible tests. In each case, Peirce has been striving all along for that third grade of clearness, and in each case he applies that hypothetical structure of operation and result. In each case, the operations are such as any member of the community might perform and the result are public in the sense that anyone might observe them, there might, of course, be private association or feeling associated with these terms, especially with truth and reality, but these are not part of the meaning of the terms. Language after all is a social convention we learn as children and teach others. Were their meanings not found in something public and common, neither the learning nor the teaching of language be explicable.

We should note one other consequence of Peirce's discussion of meaning. Consider two beliefs that seem to be different; perhaps they just have a different feel to them or are expressed in different words. Are they really different? If the practical consequences of the two are not

different, then no more difference in the manner of consciousness of them can make them different belief, any more than playing a tune in different keys is playing different tunes. (HMIC, 264).

If there is no difference in practical effect, then there is no difference in meaning. Peirce draws out the practical consequence of this Principle.

It will serve to show that almost all proposition of ontological metaphysics is either meaningless gibberish, one word being defined by the other words, and they by still others, without any real conception ever being reached, or else is down right absurd; so that all such rubbish being swept away, what will remain of philosophy will be a series of problems capable of investigation by the observational methods of the true sciences.(WPI, 282)

This seems to be an announcement of the end of metaphysics, its work being taken over by the practical sciences.

Peirce we can say that argues against ontological metaphysics because he feels that such metaphysics stubbornly insists on saying not what reality is, but what reality should be:

Metaphysics had become an affair of theologians or of men who have not been animated by the true scientific Eros and who have been inflamed with a desire to amend the lives of themselves and others (1.620).

In order to be a science of reality, metaphysics had to be guard against ontology. Metaphysics had to avoid a transition from what is the case to what ought to be the case. It seems to me,

however, insistence on the positive and experimental character of metaphysics yields a possible confusion between metaphysics and science.

To understand the essence of Peirce's view better, let us contrast it with that of David Hume. There are some clear similarities to be noted first. Both are interested in getting rid of what they see as fakery in metaphysics. And both are convinced that clarity about meaning will be helpful in dismissing much of it as sophistry and illusion.

But the differences are more striking than the similarities: first, Hume's method of certifying the meaning of a term is essentially contemplative. The philosopher sits in his study and muses over his experience; if he find some sensation in his memory from which the idea in question has arisen, it is accepted, otherwise not. For Peirce, on the other hand, the method of clarifying our idea is active. To find out what a term means, we have to do something and then experience the consequences. Second, Hume's criterion tends to be individualistic and private; the sensations I have had are not likely to be exactly the sensation you have had. Peirce's criterion on the other hand is emphatically public; he will admit as a practical consequence nothing that could not be experienced by anyone. Third, where as Hume's investigation of the meaning of ideas is oriented towards the past; Peirce is future looking, towards use. And finally, where as for Hume the meaning of words are pretty much fixed in our past experience, Peirce is able to think of us as much more flexible and creative with respect to language. What we do determine the meaning of words. And what we do is under our control. This consequence is quite in with Peirce's acceptance of evolution and the possibility of progress. Language too evolves,

In fact, therefore, men and words reciprocally educate each other; each increase of mans information involves, and is involved by, a corresponding increase of a words information. (CII, 189)

The meaning of our words are not cut from stone once and for all; they change as relevant information about their objects changes because for them to have meaning at all is for them to be part of a network of implication. As information changes, so do the implication. The meaning of heat, for example is no longer what it was in the days before modern thermodynamic.

The pragmatic movement has often been misunderstood; the most frequent misconceptions is the assimilation of the philosophies of Peirce in to particular forms of positivism, reductionism, or crude voluntarism. Peirce's scholastic realism, his doctrine of signs, and his conception of truth as the unique and destined goal of inquiry now tend to receive the attention that was formerly reserved for his empiricism and pragmatism.

It would, however, be too easy for those sympathetic to the early pragmatists to attribute the misunderstandings to unsympathetic critics. Much of the misunderstanding appears to have been generated by the pragmatists themselves; on a superficial level, they seem to be responsible for sometimes misrepresenting their own ideas. This is not a clear case of philosophical bad faith, for there is sometimes incoherence in their thought which is quite capable of generating several interpretations. The most general inconsistency has always seemed to be between the metaphysics espoused by the pragmatists and their theory of meaning. When the theory of meaning (in its more reductionist versions) was taken to be the primary philosophical contribution of the pragmatists, their metaphysical speculations were regarded as oddness.

However, the more we see of the speculative strength and consistency of their metaphysics, the more we may be tempted to reverse this interpretation.

Peirce's treatment of a crucial issue in his own pragmatism illustrates, I believe, some of these problems of interpretation, which are in turn complicated by self-interpretations. The general problem is whether we can make sense of either the motives or the formulation of the pragmatic theory of meaning when this theory is regarded in the light of Peirce's more metaphysical analyses. Now Peirce himself wants to exclude the possibility of our raising such questions. In a late exposition of Pragmaticism (a term he adopted in order to distinguish his own version from others) he says that pragmatism "*is no doctrine of metaphysics, no attempt to determine any truth of things. It is merely a method of ascertaining the meaning of hard words of abstract concepts*". (SP,317). What is misleading about this claim is that a principle of meaning may not explicitly propose a metaphysical account of anything. In the same paper, Peirce formulates the pragmatic principle as the thesis that meaning is to be analyzed in terms of habits:

Intellectual concepts . . . essentially carry some implication concerning the general behavior either of some conscious being or of some inanimate object, and so convey more, not merely than any feeling, but more, too, than any existential facts, namely the "would-act's," "would-do's" of habitual behavior.(ibid)

The way that Peirce establishes this principle raises some questions. He attempts to give a proof of the claim that the meaning of an intellectual concept (or, in his terminology, the ultimate logical interpretant) must be a habit or a habit-change, for this is "*the only mental effect . . . that is not a sign but is of a general application* (ibid.). Let us now see his theory of habit briefly.

In short, Peirce as well as other pragmatists could not free their theory from metaphysical speculation no matter them insists on the experimental and observational method. Metaphysics as distinguished from science deal with what ought to be rather than what is.

2.2 Habit

Habit is used by Peirce to designate an initially bewildering variety of things, including beliefs, logical principles, dispositions, instincts and personality. It is a broad concept which covers under one umbrella what other philosophers might want to separate as the bodily and the mental, or the rational and the irrational. Peirce's typical way of describing it is to say that readiness

"To act in a certain way under certain circumstances and when actuated by a given motive is a habit or, alternatively, a habit is the general way in which one would act such and such a general kind of occasion were to occur." (5.480).

Intuitions, he suggests, are the results of unconscious inference. We may not be aware of the inference which produces a certain conclusion, but this does not render the conclusion any less inferential. The associationist doctrine, on the other hand, is construed as an approximation to Peirce's own theory:

The association of ideas is supposed to proceed according to three principles - those of resemblance, of contiguity, and of causality. But it would be equally true to say that signs denote what they do on the three principles of resemblance, contiguity, and causality ... the association of ideas consists in this, that a judgment occasions another judgment, of which it is the sign. Now this is nothing neither less nor more than inference. (5.307)

To have a habit is to "*behave, or always tend to behave, in a way describable in general terms upon every occasion (or upon a considerable proportion of the occasions) that may present itself of a generally describable character*" (5.538). By stressing the fact that the occasions on which a habit operates are of a "generally describable" sort, Peirce emphasizes that the mode of activity involved is of a purposive, rather than a mechanical type. Or, to adopt his own use of classical terminology, it is a matter of final rather than efficient causation. If I have a habit of speaking the English language, for example, I produce results of a generally describable sort (acceptable English sentences) whenever an occasion of a certain sort presents itself (one which is appropriate for speaking). There is an indefinite number of possible occasions on which my speaking might be appropriate and there is an indefinite number of possible ways in which I might utter the same sentence. *To say that my action is governed by the habit is to say that I would bring about a certain kind of result if the proper occasion presented itself, but it does not require that the occasion or result be of a completely determinate sort. Now this is precisely to describe what activity is like when it is under the guidance of purpose and concepts or thought* (1.212).

We could restate this analysis by saying that while *habits require or involve actions, they are not reducible to actions* (2.664). For just as habitual actions must be determined by purposes, so without action there is no habit. This means, we may say that there is no thought which does not involve activity in the minimal sense of making connections and syntheses. Peirce wants to say something more than this. He claims that there can be no thought that does not have a tendency to definite embodiment. The metaphor of the court and the sheriff, frequently employed by Peirce, is illuminating in this respect.

The court cannot be imagined without a sheriff. Final causality cannot be imagined without efficient causality. The sheriff would still have his fist, even if there were no court; but an efficient cause, detached from a final cause in the form of a law, would not even possess efficiency; it might exert itself, and something might follow post hoc, but not propter hoc; for propter implies potential regularity; and without the influence of ideas there is no potentiality. (1.213)

The point of the metaphor concerns the interdependence of the "merely" physical and the rule-governed and also suggests the kind of analysis to be given of their basic differences. A court is not a real one unless it has or might have some method of enforcing its rulings, and one cannot speak of a ruling being enforced where there is no process of making a ruling.

The theory attributed to Peirce here may seem to conflict with some of his own accounts, which have a more reductionist tone. What is interesting here, however, is that there are two kinds of reductionist statements concerning thought and action to be considered. On the one hand, there is the well known claim that

The whole function of thought is to produce habits of action . . . we come down to what is tangible and conceivably practical, as the root of every real distinction of thought. (5.400)

Suppose we now try to understand Peirce's pragmatism in the light of this *inseparable connection* between thought and action. I suggested that Peirce's attempts to divorce the pragmatic principle from any "metaphysical" claims is somewhat untenable. In particular Peirce's sketch of a proof of the pragmatic principle finds meaning to consist in habit.

The question is to see how Peirce's analysis of habit is related to his pragmatism? For this purpose it will be helpful to follow the argument of *A Survey of Pragmaticism*, which is in many ways the most precise of the several expositions of his philosophy which Peirce prepared toward the end of his career. Peirce states the pragmatic principle in terms of habit, as he has done before, but adds the important qualification that it is a method of ascertaining the meaning of "intellectual concepts" alone and not of ideas or things in general.

Peirce begins by stating the principle of meaning which, as we have seen, identifies the meaning of an intellectual concept with the "would- be's" of habit. It is important to note that while this formulation echoes in *"How to Make Our Ideas Clear,"* it differs from it in its stress on the generality and real possibility of habit. That is, Peirce has taken into account in his pragmatism his own metaphysical analysis of thought and action.

Now Peirce's problem, as he says himself, is to demonstrate or prove the pragmatic principle. He claims that he cannot give a "real proof" of the pragmatic principle, but he does propose to come as close as possible to this goal. The question is a question about meaning, so Peirce's "proof sketch" proceeds by attempting to show that the final or genuine meaning of an intellectual concept is a habit. An intellectual concept may be regarded as a sign, and a sign, says Peirce, has three typical kinds of meanings or interpretant (to use his own technical term). A sign has, or tends to have, an emotional, an energetic, and a logical interpretant. Since we will be focusing on the last, we may briefly illustrate the first two varieties. A typical "significate effect" of the proposition for one who understood it would be the occurrence of a certain feeling; in this case it would perhaps be a patriotic feeling of pride or hatred, depending upon one's nationality, disposition, and other factors. Such a feeling would be an *emotional interpretant* of the sign. The

sign also might lead us to perform some action, such as marching or picking up guns in defense; and these would be *energetic interpretants* of the sign. But Peirce suggests that we are all acquainted with a third type of meaning, namely, the *logical interpretant*. If we translate our sentence into another sentence achieving more precision, we will have replaced one "mental sign" by another (5.476).

Now we cannot conclude the argument by the assertion that the meaning of a concept is its logical interpretant. For just as there is an initial plurality of types of interpretant there is a plurality of logical interpretants of any given concept. If I clarify a concept by defining it, I may go on to give a translation or clarification of that definition; this interpretant of the first interpretant would also be an interpretant of the original concept. Since this process can go on indefinitely, Peirce claims that no one of the elements of this series can be the meaning; it cannot be what he calls the "ultimate logical interpretant" (5.476). Yet Peirce says that there can be such an ultimate logical interpretant; and it is habit.

It can be proved that the only mental effect that can be so produced [i.e., as an ultimate logical interpretant] and that is not a sign but is of a general application is a habit-change; meaning by a habit change a modification of a person's tendencies toward action, resulting from previous experiences or from previous exertions of his will or acts, or from a complex of both kinds of cause. (5.476)

The logical interpretant must be *general*, in order that it truly be the meaning of a concept. What Peirce requires, then, is a "mental fact of general reference" which is not itself capable of having an interpretant (for otherwise it could not be the ultimate interpretant). He asserts that there are only four such facts: conceptions, desires, expectations, and habits. The concept cannot be the

ultimate interpretant, for concepts are precisely the kind of things that themselves take interpretants. Yet desires and expectations are not general. Peirce means to suggest that we desire and expect things only of a general sort that is in accordance with a concept; so they are no less conceptual than a concept itself.

Peirce's definition of habit is that "*[readiness] to act in a certain way under given circumstances and when actuated by a given motive is a habit*" (5.480). The generality which is stressed by the "certain way" and the "given" circumstances and motive is of the sort which Peirce analyzes as final causation or purposive behavior.

If habits do involve concepts, it seems to follow that they would themselves have interpretants; like "pure" concepts, they would be subject to interpretation. For Peirce's argument to be plausible he should be able to rule this possibility out. He admits that a habit may be a sign in some way, but insists that it is not a sign in the way that the concept whose meaning it is a sign (5.491).

Generally speaking, Peirce emphasizes the methodological weakness of both associationism and intuitionism in two reviews. Concerning the Human Intellect, Peirce remarks that

It is easy to see upon what side such a theory may expect attack. Its essence is that the process by which we attain our first knowledge of the fundamental ideas [intuitions of first principles] is essentially different from the other processes of the mind. Now, if it were shown that all the other mental processes, whether of cognition, emotion, or action, were essentially one, it would be hard to prevent men from believing that this process alone did not conform to their common formula. (5.342)

For Peirce there is no such a thing as intuition because it is out of the process of sign. In order for something to be considered as knowledge it must be mediated.

In order to understand the concept of habit, it would be helpful if we discuss his theory of categories: firstness, secondness and thirdness.

2.2.1 Firstness

Firstness is usually referred to by Peirce as a possibility, a quality, or a feeling. Possibility is the status of a first when considered in itself, quality is status in relation to object, and feeling is status in relation to perceiving mind. I shall discuss possibility first. Peirce says,

Firstness is the mode of being which consists in its subject being positively such as it is regardless of any else. This can only be a possibility. For as long as things do not act up on one another, there is no sense or meaning in saying that they have any being, unless it be that they are such in themselves that they may perhaps come in to relation with others
(1.125)

It seem to me that something which does not act up on anything is nothing. And firstness is between a mere nothing and an existing thing. The difference between firstness and nothing is that it is possible for a firstness to become actual and nothing cannot. Nothing is defined by Peirce as self contradictory so that a possibility is not a nothing, i.e., is not self contradictory. Because it is not, it is possible that it should become actual. It is more than a nothing.

This gives us the first characteristic of the realm of possibility; it does not contain anything which is self contradictory. A second characteristic which follows from the first is that firstness must be such that it can enter in to consciousness.

I recognize three universes which are distinguished by the three modality of being. One of these three universes embraces whatever has its being in itself alone, except that whatever is in this universe must be present to one consciousness, or be capable of being so present to its entire being (Philip, 1968, 288)

A third characteristic of first is that they are general.(1.427). Peirce uses the term general in the sense in which medieval philosopher spoke of universal. Since the notion of general is central to much Peirce's thought, it will be worthwhile to examine it in some detail. He gives definition in (5.446) and (5.505), where he distinguishes between a determinate object and an indeterminate one. An individual is a complete determinate object and a general is indeterminate. A determinate object is one to which the law of excluding middle applies in every respect. Simply the law of excluding the middle says that the object has a property or it does not have it. Thus any given table is a completely determinate object. With reference to any property that may be mentioned, the table either has it or does not have it. It has weight it does not have locomotive ability. It has shape, it has color, and it does not have complete rigidity and so on with reference to every property whatever- the table either has it or does not have it. It is therefore determinate in every respect and therefore an individual.

Insofar as the sign of an object is not determinate, it is indeterminate. That is if there is some respect in which the law of excluded middle does not apply, some property with reference to which it cannot be said of the sign that it has the property, the sign is in that respect indeterminate. For example, triangularity is indeterminate with respect to acuteness. It cannot be said of triangularity that it is acute or that it is not acute, it may be either and it is indeterminate in this respect.

A sign may be indeterminate in two senses: it may be vague or it may be general. *A sign is objectively vague, in so far as, leaving its interpretation more or less indeterminate, it reserves for some other possible sign or experience the function of completing the determination (5.505)* consider the reference to “an animal” as in the sentence, *an animal just crossed the street*. In this sentence the sign an “animal” is vague as to, for example, the sex of the animal. Vagueness can always be eliminated by further information. Thus the utterer of the sentence may have known that the animal was male or female but refrained from stating. But even if the utterer does not know the sex of the animal, further examination of the animal would remove the vagueness. Thus the function of completing the determination is left to some other sign or experience.

An indeterminate sign that is not vague is general. *A sign is objectively general, in so far as, leaving its effective interpretation indeterminate; it surrenders to the interpreter the right of completing the determination for him (5.505)*. Thus triangularity is general, for example, with regard to whether it is acute or obtuse. The interpreter may complete the determination for himself. If he wishes to treat of acute triangularity he may do so, or if he wishes to treat of obtuse triangularity he may do so. Triangularity itself is indeterminate in this respect and the interpreter may apply as he wishes.

For Peirce a sign is vague if further information would enable us to make it completely determinate. A sign is general if it is not possible for any amount of further information to make it determinate. Thus no amount of further information can ever make triangularity completely determinate with respect to acuteness or obtuseness. It can only be made by the users arbitrarily stipulating that it shall apply to one or the other.

We may thus define the individual as that to which the law of excluded middle applies in every respect and the general as that to which the law of excluded middle cannot be applied in one or more respect.

In this sense, redness is general. It is perfectly determinate with regard to its redness and it is indeterminate, however, insofar as it does not say what it is that it applies to, i.e., what things are red. Humanity is perfectly determinate with regard to mortality, whatever human is mortal, but it is indeterminate with regard to what human. The number four is determinate as to fourness, but it is indeterminate in so far as it does not specify what particular collection it applies to.

As possibility, then, a sign in the realm of firstness has the three characteristic of being: one it is not self contradictory, second it can enter in to a consciousness, third general.

As a quality, firstness is attached to a substance and becomes part of physical object. There it functions in the sense of a quality as the word is used in the speaking of primary qualities.

When a quality affects a perceiving mind it produces a feeling. This feeling is firstness as exemplified in consciousness. *Firstness is exemplified in every quality of a total feeling* (1.531).

The life history of firstness begins as possibility, attains the status of a quality in an object, and become realized as a feeling in a mind. But this whole process can only be stated clearly when we have examined secondness and thirdness.

2.2.2 Secondness

Secondness is that mode of reality that belongs to individual (1.427); seconds are determinate, individual particular (1.434). To this mode of reality Peirce gives the name existence. *Individual alone exist* (5.429). Peirce applies the term existence to one mode of being and the term reality to

all mode of being. Thus firsts are real, seconds are real and thirds are real. But only seconds exist (5.429).

In saying that general are real Peirce does not mean the kind of platonic realism wherein it is held that general exist.

It is perhaps true that the spectators of individualism, the essence of whose doctrine is that reality and existence are coexistence, i.e., are either alike true or alike false of every subject, must, to be logical, go along with you in holding that real and existent have the same meaning, or inhalt. But reality means certain kind of independence up on thought, and so is a cognitionary character, while existence means reaction with the environment, and so is a dynamic character; accordingly the two meanings are clearly not the same. Individualist are apt to fall in to the almost incredible misunderstanding though all other men are individualist, too, even the scholastic realist, who, they suppose, thought that universals exist (5.503).

In the above quotation Peirce define existence as *reaction with the environment*. Again in 1906 he wrote *I myself always use exist in its strict philosophical sense of react with other like things in the environment* (6.495). By defining existence as reaction, Peirce means to say that an object exists in so far as it actually affects other objects in its environments. That which does not affect anything does not exist.

Existence is that mode of being which lies in opposition to another. To say that a table exist is to say that that is hard, heavy, opaque, resonant, that is produce immediate effect up on the senses, and also that it produces purely physical effect, attracts the earth, that is heavy, dynamically react against other things, that is it has inertia, resist pressure, that

is elastic, has definite capacity for heated. To say there is a phantom table by the side of it incapable of affecting any senses or of producing any physical effects whatever, is to speak of an imaginary table. A thing without opposition ipso facto does not exist. Its existence is the sum of its effects (1.457).

One merit of this definition is that it makes existence a positive character. By so doing it eliminates any such difficulty as that about the man in the corner that is there whenever no one is looking but disappears whenever someone not looking at him. An object must prove its existent by affecting something. If it affects nothing, it does not exist.

In other words, the definition does not make it necessary that an existent object affect a perceiving mind. It need only affect other objects.

...the physical effect of a fact can take that place of experience of the fact by a witness. Hence when we pass from the consideration of appearance of a fact in an experience to its existence in the world of fact, we pass from regarding the appearance as dependent on opposition to our will to regarding the existence as depending on physical effects.

There can hardly be a doubt that the existence of a fact does consist in the existence of all its consequences. That is to say, if all the consequences of a supposed facts are real facts, that makes the supposed fact real. (1.431).

On this analysis, if I build a fire and then go out of the room and lock it, and if twenty minutes later I came back and the wood has all turned to ashes, the fire is burnt down, the room smell of

smoke, etc, then., there was a real fire which existed in the room while I was gone, for the presence of this real consequences is all that is meant by saying that fire existed in the room while I was gone.

2.2.3 Thirdness

Firstness we saw to be so called because it referred to only one thing that and secondness need two things; thirdness, as we would expect involves three things. Thirdness is not just any three things but three things related in such a way that one of them is brought in to association with a second via a third. Peirce sometimes calls this process mediation. The best example of it is a sign. A sign brings an object in to association with an interpretant. The sign mediates between the object and the interpretant.

All true general propositions are thirds. The proposition that *all men are rational animal*, mediates between, or brings in to association the concept *man* and the concept *rational animal*. All thirds are also general, but they are general in a somewhat different way from first. This may be illustrated by reference to the first of redness and the third of proposition that *all men are rational animals*. A first is general because it is indeterminate with reference to what it applies to and it does not say this is red or that is red, it only say redness. But once that first become associated with an object and is perceived, it enters in to experience in its entirety. Thus given the first of any particular shade or redness, it can enter in to any individuals experience in its entirety. He can know that shade of red completely.

But a third is also general because it is indeterminate. If we ask what man is a rational animal, the third that all men are rational animals does not tell us. It simply says any man you please. The determination as to what man is left open to the interpreter. The difference between a first

and a third cannot enter into the experience of an individual in its entirety. No particular mind can know that all men are rational animal. This can only be known after the experience of all men. And Peirce holds that complete knowledge of thirdness, i.e., complete rationality is only possible for the community of investigators.

To sum up, a first is that which it is regardless of any other, and a second is what it is because of the other. Examples are more useful. Sensation and feelings are firsts. *Dasein*, or existence, or being there is secondness. Existence is the second kind of reality. Particular events are set of sensation and feelings accompanied by *Dasein*. Thirdness appears as habit in men, as active law in the non human part of the universe, and as a concept in the intellectual realm. Law, habit and concepts are interchangeable terms for Peirce.

Chapter Three

3. Peirce on Kant's critique of pure reason and Cartesian methodological doubt

3.1 Peirce on Kant

Now I want to consider Peirce's view regarding the distinction between noumenal and phenomenal world, the theory of truth and the nexus between theoretical and practical reason.

Peirce disagreement with Kant is about the proposition that the thing-in-themselves cannot be conceived. He denies this. He asserts that:

We have direct experience of things in themselves. Nothing can be more completely false than that we can experience only our ideas. That is, indeed without exaggeration the very epitome of all falsity. Our knowledge of things-in-themselves is entirely relative, but all experience and all knowledge is knowledge of that which is, independently of being represented. (6.95)

The thing in itself is always experienced in the element of struggle, inquiry. There is no such hidden thing in themselves. Things are as they reveal themselves to inquiry.

Peirce also denies Kant's assertion that truth is the correspondence of representation with its object.

Truth is the correspondence of a representation with its object, as Kant says, merely the nominal definition of it. Truth belongs exclusively to propositions. A proposition has a

subject and a predicate. The subject is the sign; the predicate is a sign; and the proposition is a sign that the predicate is a sign of that which the subject is a sign. Now thought is the nature of a sign. In that case then, if we can find out the right method of thinking and can follow it out, the truth can be nothing more nor less than the result to which the following out of this method would ultimately carry us. In that case that to which the representation should conform, is itself something in the nature of a representation, or sign-something noumenal, intelligible, conceivable and utterly unlike a thing in itself (5.553)

It should be noted here that Peirce does not use the word noumenal in Kant's sense as opposed to the phenomenal.

Kant's distinction between the practical and theoretical reason has collapsed. The limit of intellectual meaning must be specified with reference to practical experience. For Peirce the intelligibility of the noumenal world is to be found in every phenomenon. Kant's *praktisch* as distinct from his *pragmatisch* becomes unnecessary with this conception of the noumenal. Peirce declares that:

*...Kantian terms *praktisch* and *pragmatisch* were as far as apart as the two poles, the former belonging in a region of thought where no mind of the experimentalist type can ever make sure of solid ground under his feet, the latter expressing relation to some definite human purpose. But there is an inseparable connection between rational cognition and rational purpose; this consideration determined the name pragmatism.*
(5.412)

Kant's distinction between the noumenal and the phenomenal was what enabled him to account for an individual person as a moral being, or free agent. For Peirce, noumenal self or person would be simply any general idea or symbol that constitute as thirdness.

3.2 Peirce on Cartesian Doubt

Before directly proceeding to Peirce's critique of Descartes, the best method to start is to clarifying the several different meanings that Peirce attaches to the word *skepticism*.

The first form of skepticism is Cartesian doubt or *faked skepticism* (5.264-5). This is an extreme form of skepticism which Peirce considers to be the spirit of Cartesianism. It is not genuine, since it provides no positive and convincing reasons for really doubting specific classes of beliefs and it is self-deceptive, for it is merely speculative and impossible to achieve. It is useless and deceitful, because we seem to be challenging all our beliefs while in fact we do not seriously challenge any one. It is apparently progressive but truly conservative, since it is only re-acceptance of all our beliefs. Because it is not inter-subjective, it does not arise from the discussion with other members of the epistemic community and is *infra-subjective* (5.318-319) that is an intellectual solitaire, self-imposed, unnatural.

The second kind of skepticism is *destructive or absolute* (*ibid.*). It is not refutable, since it is based on the logical possibility of counterfactuals: *nothing can be proved beyond the possibility of doubt and no argument could be legitimately used against an absolute skeptic* (5.327).

Although it is often accused of being self-contradictory, it is perfectly consistent; impossible (there are no absolute sceptics). It is possibly different from Cartesian doubt in so far as the

Cartesian method considered a deceptive method *I am neither addressing absolute sceptics, not men in any state of fictitious doubt whatever* (5.319). It is a dialectical method when it is employed to challenge the most fundamental beliefs. Just like in the case of Cartesian doubt, Peirce considers absolute skepticism a fruitless and deceptive way of carrying on a philosophical investigation.

Thirdly we get *Constructive or moderate skepticism* (5.451). This skepticism is constructive if and only if it satisfies four conditions: First, it is based on sincere and real doubt. Second; it is aggressive towards established beliefs. It is a “masculine” form of skepticism [1.344]. Third, it is fruitful, i.e. by challenging established beliefs it is a source of intellectual innovation and promotes inquiry, and finally, it is tolerant and ready to acknowledge what it doubts as soon as the doubted element comes clearly to light. It represents the life of investigation, since when all doubts are set at rest inquiry must stop. It is therefore one of the intellectual forces behind the advancement of knowledge, what can critically unsettle the system of beliefs: “*skepticism about the reality of things, provided it be genuine and sincere, and not a sham, is a healthful and growing stage of mental development.*” (8. 43) and support the *Will to Learn*. *The first thing that the will to learn suppose is dissatisfaction with ones states of opinion.* [5.583].

The fourth is *Ethical skepticism* (8.45, 51-52). It is the pragmatic, i.e. ethical and religious, complement of Cartesian skepticism, a make-believe position.

The fifth is *Anti-scientific and conservatory skepticism* (6.493). This refers to a proposal to turn all idea out of consideration and allow no further inquiry into its value and applicability. It is

untruthful, undercover, disguised and conservative variety of skepticism, which is afraid of truth. Tradition becomes the ultimate and only criterion of evaluation. This skepticism obstructs inquiry and is to be condemned as antiscientific by the fundamental principle of scientific method.

The six kinds is *Nominalist, anti-realist skepticism* (6.493). *Only nominalist indulges in anti-scientific skepticism:*

Neither can I think that a certain action is self-sacrificing, if no such thing as self-sacrifice exists, although it may be very rare. It is the nominalist, and the nominalist alone, who indulge in such skepticism, which the scientific method utterly condemns.
(6.493)

It is akin to antiscientific and conservatory skepticism. Since nominalist and anti-realists are ready to turn all idea out of consideration and allow no further inquiry into its applicability.

The seventh is *Theoretical blindness* (5.96). To be a skeptic means to be blinded by theory and fall into a form of intellectualism of a Cartesian or Nominalist kind.

The fact that I know that this stone will fall to the floor when I let it go, as you almost confess, if you are not blinded by theory, and you none of you care to take up my bet, is the proof that the formula, or uniformity as furnishing a safe basis for prediction, is, or if you like it better corresponds to reality.(5.96)

The formula is uniformity of nature. Let us say all solid bodies fall in the absence of up ward pressure or forces. But those who are blinded by the theory will dispute it while it is in fact real.

One of the central themes in Peirce's philosophy is the rejection of what Peirce called *the salad of Cartesianism* (5.63). This section is an examination of Peirce's attack on Descartes' methodological doubt. According to Peirce, Descartes did not have good reason for his doubts. Rather his doubts were shams, pretence, deception and paper doubts. Hence, Peirce charges, the *Meditations* are a waste of effort and not a genuine inquiry.

In this section I will try to show that that Peirce's charge is a just one. But I argue that Descartes does have reason to doubt what he doubts. Before turning to Descartes, however, I will attempt to reexamine the theory of doubt which lies at the heart of Peirce's rejection of Descartes.

According to Peirce, Descartes' methodological doubt violates Peirce's basic rule that inquiry must begin with real doubt. In Peirce's words:

Some philosophers have imagined that to start an inquiry it was only necessary to utter a question whether orally or by setting it down upon paper, and have even recommended us to begin our studies with questioning everything! But the mere putting of a proposition into the interrogative form does not stimulate the mind to any struggle after belief. There must be a real and living doubt, and without this all discussion is idle. (5.376)

The central question here is the meaning of “doubt”. What is a criterion of *real and living doubt*? In *The Fixation of Belief*, for instance, where he treats the problem of doubt in the most detail, he distinguishes belief from doubt on psychological grounds:

Doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief; while the latter is a calm and satisfactory state which we do not wish to avoid, or to change to a belief in anything else. (5.372)

According to this conception, doubt is apparently known because it is a dissatisfactory state, an irritant which causes mental activity or inquiry.

Although Peirce was sensitive to some of the difficulties involved in treating doubt as dissatisfaction and made attempts to overcome them he admitted that his early theory was overly psychological and, hence, inadequate (5.28). There is another, more adequate conception of doubt in Peirce. This other conception is that doubt is the blocking of a habit of action, or, as Peirce says, doubt is "the privation of a habit" (5.417). In order to see this second notion of doubt more clearly, let us step back for a moment to get the over-all view of the role of belief in knowledge according to Peirce.

Two basic principles of Peirce's theory of knowledge are: first, belief is a habit of action which may be present even though the individual is not conscious of his belief and second, man cannot see beyond his beliefs to the facts of reality. Briefly, Peirce's view is that '*A believes p*' is always analyzable into a dispositional proposition relating to A's potentiality to act in certain ways in certain circumstances (5.371, 5.398). The second principle, although also well known, calls for somewhat closer scrutiny. According to Peirce *all you have any dealings with are your doubts and beliefs, with the course of life that forces new beliefs upon you and gives you power to doubt old beliefs* (5.416).

According to Peirce, although 'I believe p' and 'It is true that p' differ in meaning, I cannot distinguish between them in the knowledge situation. That is to say, I have no criterion by which I can distinguish my true beliefs from the false ones, for, so long as they are my beliefs, I believe them to be true. Hence, any claim that p is true reduces to a belief statement of the form "A believes p". As Peirce puts it:

The most that can be maintained is, that we seek for a belief that we shall think to be true.

But we think each one of our beliefs to be true, and, indeed, it is a mere tautology to say so. (5.375)

According to Peirce, this principle even applies to perceptual judgments (5.180.). Briefly, Peirce's view is that propositions framed on the basis of percepts and past experience are the only cognitive parts of perception, for only they can be true or false and communicated. Hence, when we perceive an object, we do not have direct knowledge of that object. Rather, we believe a proposition about the percept. Hence, our view of reality as given in perception is what we believe reality to be and not necessarily what reality actually is.

These two principles that belief is a habit of action and that we cannot see beyond our beliefs provide the framework for Peirce's theory of inquiry and doubt. According to Peirce, knowledge is a more or less unified body of beliefs accepted by the community to organize experience and to help us predict the future. Although the final goal is truth, we can never verify beliefs by comparing them to non mental facts in reality, for we can never look beyond our beliefs to the world itself. Rather, verification takes place by acting on our beliefs and seeing whether experience fits our expectations. If the belief in question is true, no perceptual proposition forced on us in the future will contradict it. If, however, the belief is false, there will come a time when

experience will contradict it; or, we will be forced to believe a perceptual proposition which contradicts our former belief. When this happens we conduct inquiries, i.e., we re-examine the situation and either reject the disaffirming instance, revise the old belief, or reject it altogether and replace it with a new one.

The stage which concerns us here is the uncomfortable of the belief by experience, which is doubt. Basically doubt is the awareness of an incompatibility between two beliefs, one accepted on the basis of previous experience and one forced on us by the perceptual situation. This view of doubt is what Peirce had in mind when he wrote that:

Every inquiry whatsoever takes its rise in the observation ... of some surprising phenomenon, some experience which either disappoints an expectation, or breaks in upon some habit of expectation of the inquirers; and each apparent exception to this rule only confirms it. (6.469)

Peirce's use of the word 'every' in this passage implies that all doubt arises from the appearance of negative instances in perceptual propositions. Although he seems to believe that in most cases doubt arise through disconfirmation, i.e., in consistency between two perceptual propositions he recognizes another important case as well, namely, the case where the inconsistency is between a perceptual and non-perceptual proposition. For example, I may believe that the earth moves on its axis or the earth does not revolve around its axis. In such a case the inconsistency is not between a perceptual and non-perceptual proposition but rather between two non perceptual propositions. In the case of perceptual proposition doubt is forced on me by negative instance whilst doubt in the case of incompatible non-perceptual beliefs can arise by reflection

independent of overt action and experimentation. It is this latter case that Peirce has in mind when he says:

It will be wholesome enough for us to make a general review of the causes of our beliefs; and the result will be that most of them have been taken upon trust and have been held since we were too young to discriminate the credible from the incredible. Such reflections may awaken real doubts about some of our positions. (5.376)

Combining these two cases of doubt, Peirce's conception of doubt can be stated as follows: A doubts p, if and only if, A is led to believe p and some other proposition q, and A is aware of an inconsistency between p and q. Since, A believes p means that A has a disposition to act in certain ways, it follows that doubting p involves the awareness on A's part that he is disposed to act in incompatible ways in a given situation. Hence, A's doubting p implies indecision and suspension of action which can only be cleared up by inquiry. This conception of doubt has nothing to do with psychological matters.

This means that genuine doubt has always an external origin, usually from surprise and it is not possible to create a genuine doubt merely by such an act of will. Yet this does not mean that the source of novelty and surprise is only in external environment with respect to which man is entirely passive:

The critical common-sensist is not content to ask himself whether he does doubt, but he invents a plan for attaining to doubt, elaborates it in detail then puts it into practice, although this may involve a solid month of hard work; and it only after having gone through such an examination that he will pronounce a belief to be indubitable. Moreover he fully

acknowledges that even then it may be that some of his indubitable belief may be proved false. (5.451)

So far I have concentrated on the conception of doubt in Peirce. Let me now make a brief summary about the nexus between doubt and inquiry. Peirce maintains that real inquiry has to begin with doubt. He holds that, *without the presence of doubt, the danger exists that the proposition examined will prejudice the investigation (5.376)*. On this level, Peirce's doctrine of inquiry rests on the principle that doubt reinforces objectivity by helping the investigator to isolate the belief under examination. He also has logical grounds for holding that inquiry must begin with doubt:

*A person may, it is true, in the course of his studies, find reason to doubt what he began by believing; but in that case he doubts because he has a **positive reason** for it, and not on account of the Cartesian maxim. (5.265)*

The important point here is that doubt must be based on a *positive reason*, i.e., the investigator must be able to justify his inquiry by clearly stating the belief being examined is inadequate. Doubt justifies inquiry because doubt is the awareness of an incompatibility between two beliefs. Hence, when challenged to justify his inquiry, the investigator can point to the contradictory beliefs in the system of knowledge. If, however, the investigator did not begin with real doubt, his work is idle, for he has wasted his time on a belief which he had no reason to believe was inadequate.

Seen in this light, Peirce's doctrine that inquiry must start with doubt is a principle of the logic of justification. According to Peirce, rationality demands that we do not conduct inquiries casually but always with a reason. Unless such a reason can be given in the form of a contradiction in the structure of knowledge, we are wasting our time. When our beliefs are adequate, they are adequate and we assent to them until we get surprise that go against them.

I now wish to consider Peirce's charge that, on the basis of Peirce's account of doubt and inquiry, Descartes is guilty of *sham doubt* and, hence, that his inquiry is worthless. As Descartes makes clear in Meditation I, his aim is to establish the sciences on a firm foundation rather than on the opinions he believed in his youth. The firm foundation he finally arrives at is the *cogito* and, from this he proceeds to the existence of a good and all-powerful God. His procedure is to use the method of doubt to which Peirce so persistently objects. Descartes says that no proposition which he is capable of doubting can provide the firm foundation he seeks. In Descartes' words:

. . . I ought no less carefully to withhold my assent from matters which are not entirely certain and indubitable than from those which appear to me manifestly to be false, if I am able to find in each one some reason to doubt, this will suffice to justify my rejecting the whole. (Haldane, 1955; 145)

First, he applies his method of doubt to sensory propositions in general, and then to the propositions "*that I am here, seated by the fire, attired in a dressing gown, having this paper in my hands and other similar matters*," (ibid) that is, the class of propositions attested to by his own present sense experience. These are shown to be dubitable by the possibility that Descartes is dreaming. Descartes argues that, since it is possible that he is dreaming he has paper in his hands and is sitting beside the fire, it is not indubitable that what his senses report is actually the case.

Finally, Descartes considers mathematical propositions and statements such as 'Extension exists' and 'I have hands and sense organs. These propositions, according to Descartes, are true even in dreams and, hence, are not made dubitable by the possibility that he is dreaming. They are, however, still dubitable, Descartes says, for it is possible that God is really an evil demon who makes me believe all these propositions when, in fact, they are false.

It is at this point that Peirce's charge becomes significant. Descartes, Peirce holds, does not really doubt any of these propositions, for Descartes nowhere points out a contradiction which experience has led him to accept. The only possible candidates Descartes gives as "positive reasons" are the dream and the evil demon. Yet, by Descartes' own admission, he does not really believe that he is dreaming or that there is a demon. In other words, Descartes is merely pretending that mathematics and the truths of immediate sense experience are false. Hence, according to Peirce, any mental effort spent on re-establishing mathematics and sense experience is a waste of time, since Descartes continues to believe what he says he doubts.

Peirce's charge seems to make good sense, but is also, seems to me, gone astray. Let us concentrate on Descartes' apparent doubts about the paper in his hands. According to Peirce, Descartes claims the following:

(1) I doubt that I have a piece of paper in my hands.

What Descartes is claiming, however, is:

(2) It is possible for me to doubt that I have a piece of paper in my hands.

That Descartes is claiming the possibility of doubt rather than doubt itself is clear. For instance, in summarizing the results of Meditation I, Descartes says, "*I shall proceed by setting aside all that in which the least doubt could be supposed to exist, just as if I had discovered that it was absolutely false (ibid).*" I think for Descartes the claim is (2) and not (1). Furthermore, in the statement of the rule of doubt itself, Descartes says he will suspend judgment from matters "not entirely certain and indubitable." The clear implication is that Descartes is not merely seeking true propositions as the firm foundation of science; rather he wants absolutely true propositions, i.e., propositions about which we cannot possibly be mistaken in the sense of logical possibility.

Now, admittedly it is difficult to see how Descartes could doubt that he has a piece of paper in his hands and yet continue to write Meditation I. He might put his pen to the supposed paper and find that no mark is registered. Or he might attempt to tear it for some reason and discover that it does not tear easily as paper ordinarily does. In either case, Descartes would be justified in claiming to doubt his sensory report; but surely if he doubted that he has paper before him, it would be insane for him to continue writing and telling of his doubts. However, there is no difficulty connected with Descartes claiming that it is possible to doubt the existence of the paper. In order to show this, Descartes has only to point out the possibility of one situation in which he has the sense perception of paper in his hands while in fact there is no paper. One such case, as Descartes correctly points out, is the situation in which we dream we are besides the fire writing on paper when, as a matter of fact, we are sleeping in bed. In short, the possibility that Descartes is dreaming is sufficient to show that Descartes' actual claim is true. Thus, once we become clear about Descartes' claims, we find that he does have sound reasons which would justify his inquiry.

The point may be put in another way: according to Descartes, knowing always includes indubitable awareness of the truth of the proposition. Hence, in order for a belief to pass as knowledge for Descartes, the falsity of the belief must be inconceivable. Now, when Descartes considers immediate sense experience, he finds that he could have the same perceptions he now has in dreaming. Thus, in his sense of 'know,' Descartes does not know that he has paper in his hands, for his sense impressions do not tell him indubitably that he does.

I think, from this perspective, Peirce's mistake is clear. According to Peirce, Descartes did not really doubt; he actually believed, and hence his inquiry was a sham. But this, I argue, misses Descartes' point. As far as I concerned, what Descartes is interested in showing is that he does not know about reality through perception in his sense of 'know'. And this he shows adequately by the possibility that he is dreaming. Since he may be dreaming, he does not know with certainty that he is holding a piece of paper. Furthermore, Descartes can accept Peirce's charge that he continues to believe mathematical and sensory propositions. Descartes merely has to point out that there is a difference between believing and knowing, and that, although he continues to believe in sensory reports, they still do not pass as knowledge in the Cartesian sense.

In short, Descartes' doubts are about knowledge claims in his sense of "know" and not about the truth of beliefs. Peirce, in other words, misunderstands Descartes.

.All Descartes intended to show was that every proposition other than the cogito is dubitable. The fact that Descartes ends up accepting many of the propositions he supposedly doubted is the result of Descartes' conviction that these beliefs have been placed on a solid foundation. That is, they have been certified; he has what he takes to be good reason for believing they are true. In

other words, Descartes is not really looking for new factual knowledge; he is seeking to place his present knowledge on what he takes to be an acceptable basis.

The problem, I think, is that Peirce misconstrues the aim of Descartes' inquiry. According to Peirce, inquiry is the struggle to attain new beliefs after the recognition of a contradiction in the system of knowledge. Thus, for Peirce, inquiry is the search for new factual knowledge, i.e., new hypotheses. This conception of inquiry, however, fails to take account of Descartes' investigation. For Descartes, it is not about trying to discover new hypotheses to account for experience. *His problem is philosophic in character rather than scientific.* That is, he starts from the assumption that man has knowledge about the world, and then attempts to clarify the nature of this knowledge and show how it is justified.

As we have seen, Descartes will not accept a proposition as knowledge unless he is indubitably aware of the truth of the proposition. Hence, for Descartes, "A knows p" is false unless A is indubitably certain that p is true. According to Peirce, such a conception of 'know' is unacceptable, for it entails that man knows nothing.

Basically, Peirce's reason is the principle considered in the first part of this section, namely, the doctrine that man cannot look beyond his beliefs to non-mental facts. For Peirce, since man cannot see beyond his beliefs, he can never be directly aware that the state of affairs depicted by a given proposition is in fact real. Thus, according to Peirce, the most one can justifiably say is that he believes the proposition is true, always leaving open the possibility that it will be refuted by some future experience. Moreover, one's awareness that a given proposition is true does not entail that the proposition is absolutely true no matter how intense the conviction, since, for Peirce, knowing entails believing and believing is compatible with being mistaken. Hence, from

Peirce's point of view, you can never know any proposition about reality with absolute certainty, or, to put it differently, man knows nothing in Descartes' sense of "know".

This is very strong reason for rejecting Descartes' conception that knowledge must be indubitable. I think Peirce only confuses the issues by concentrating on Descartes' methodological doubt. The Cartesian doubt is only a test which an alleged item of knowledge must pass in order to be the genuine belief. The real problem is with the view of "know" itself, the view that knowledge has to be indubitable, for, even if Descartes has sound reasons for being able to doubt what he doubts, he is still in error about knowledge itself.

To sum up, what is wrong with Meditation I from Peirce's standpoint is not Descartes' method, but rather the conception of knowledge underlying the method. The method which Descartes uses and Peirce misunderstands is quite acceptable once we accept Descartes' requirements for knowledge. Because, as I have tried to show, Descartes does have sound reasons for doubting that he knows in his sense of 'know.' *The Cartesian salad* of Peirce is indefensible.

Chapter four

4. Critical commonsensism, Action, Conduct and Self control

In this chapter, I plan to focus on Peirce's analysis of action and the related notion of conduct and self control, for I believe that we find here some of his most profound insights as well as his weakness.

The first ethical question I would like to raise is what constitutes meaning in Peirce's philosophy? Is the *be all* and the *end all* of human life consists simply in doing? Pierces answer would be the following:

Forcibly put! It must be admitted that if Pragmaticism really made doing to be the be all and end all of human life that would be its death. For to say that we live for the mean sake of action, as action, would be to say that there is no such thing as rational purport (5.429)

The deepest in empiricist theories of perception, descending from Berkley and Hume, has been the representation of human beings as passive observers receiving impression from outside of the mind, where the outside includes their own bodies. In fact I find myself from the beginning able to act up on object around me. In this context to act is to move at will my own body, that persisting physical thing, and thereby to bring about perceived movements of other physical things. I not only perceive my body, I also control it and I not only perceive external object, I also manipulate them. (Karlotto; 1981, 47)

Let us now make the distinction between action and conduct. Action is perfectly determinate: there is no indeterminateness or vagueness in brute action. It happens once and for all; it is not rational. Action is approximate secondness and it is singular and anti-general.

Conduct, as distinguished from action, is essentially general. While action is singular, conduct is a kind of activity. Conduct is related to Peirce's central notion of habit *readiness to act in a certain way under a given circumstance and when actuated by a given motive is a habit; and a deliberate, or self-controlled, habit is precisely a belief* (5.480).

The notion of habit, as we have seen in chapter two, plays an important role in Peirce's philosophy. He argues that everything, whether animate or inanimate, manifests habit. *What we call a thing is a cluster of habit or reaction* (4.157). Conduct or habit consists of what Peirce calls *would-be's*. To say that a person or a thing has a habit means that it *would behave in a certain way whenever a certain occasion should arise* (8.380).

Peirce identifies the intellectual purport or meaning of a proposition with habit and conduct. The intellectual purport or meaning is general and conditional.

...I was speaking of meaning in no other sense than that of intellectual purport. The other was to avoid all danger of being understood as attempting to explain a concept by percepts, images, schemata, or anything but concept. I did not therefore mean to say that acts, which are more strictly singular than anything, could constitute the purport, or adequate proper interpretation, of any symbol. Pragmatism makes thinking to consist in the living inferential metabolism of symbol whose purport lies in conditional general resolution to act (5.402)

Furthermore, he argues that *a rational person not merely has a habit, but also can exert a measure of self control over his future action* (5.418). Although there are operations of the mind that are uncontrollable, logical inferences are deliberate and self controlled. It is idle to criticize as good or bad that which cannot be controlled.

To criticize as logically sound and as unsound an operation of thought that cannot be controlled is not less ridiculous than it would be to pronounce the growth of your hair to be morally good or bad. The ridiculousness in both case consists in the fact that such a critical judgment may be pretended but cannot really be performed in clear thought, for on analysis it will be found absurd (5.109)

The question is what is it that which is controlled in reasoning? It is our habit or conduct. Reasoning involves the use of logic, *whenever a man reasons, he thinks that he is drawing a conclusion such as would be justified in every analogous case* (5.108). More specifically, all reasoning involves the use of what Peirce calls *leading* or *guiding principle*.

That which determines us, from given premise, to draw one inference rather than another, is some habit of mind... the particular habit of mind which governs this or that inference may be formulated in a proposition whose truth depends on the validity of the inference which the habit determines; and such a formula is called a guiding principle of inference (5.367)

In other words, these guiding principles can be classified in to those which are absolutely essential and those material leading principle that are based on experience. Moreover, these guiding principles are involved in warranting the transition from premises to conclusion regardless of whether the type of reasoning is deductive, inductive, or abductive.

There are inhibition and coordination that entirely escape consciousness. There are in the next place, mode of self control which seems quite instinctive. Next there is a kind of self control which results from training. Next, a man can be his own training master and thus control his self control. When this point is reached much or all the training may be conducted in imagination. When a man trains himself, thus controlling control, he must have some moral rule in view, however special and irrational it will be. But next he may undertake to improve this rule; that is to exercise a control over his control of control. To do this he must have in view something higher than an irrational rule. He must have some sort of moral principle. This, in turn, may be controlled by reference to an aesthetic ideal of what is fine. There are certainly more grades than I have enumerated. Perhaps their number is indefinite. The brutes are certainly capable of more than one grade of control; but it seems to me that our superiority to them is more due to our greater number of grades of self control than it is to our versatility (5.553)

This long quotation not only enumerates the grade of self control, it also provides a clue for understanding one of Peirce's important suggestions that there is a hierarchy of normative sciences. These various levels of philosophic inquiry would thus represent different level of understanding. Peirce admits that these levels of self control might be indefinite in number. It seems to me that all the belief which appear in the primitive state as instinctive and indubitable undergo considerable transformation as inquiry develops higher grades of self control.

To put it in other ways, there is such a thing original belief in which the primitive society believe. For example the belief in the uniformity of nature is common sense indubitable. In everyday living and in the practice of scientific inquiry which is free from metaphysical speculation, these original belief might undergo change results from physical and social

environment. The transition to the grade of control where a man becomes his own training master marks the beginning of philosophic inquiry.

Another important lesson we can take from this quote is that Logic is dependent on ethics and ethics is dependent on aesthetics. But before turning to the consideration the hierarchy of normative science, there are still further question to be answered in relation to self control.

How are we to analyze self control? What are its distinguishing features? Self control *consists first in comparing ones past deed with standards, second, in rational deliberation concerning how one will act in the future, third, in the formation of a resolve, of a strong determination, or modification of habit* (8.320). Self control demands constant self criticism. Constant self criticism is *the very life of reasoning* (2.123). But self criticism does not take place in a vacuum; self criticism requires an active community of inquirers, a community that is not completely identified with any existing community, but a community *without a definite limit, and definite increase of knowledge* (5.311).

The community of inquirers, which is ultimately the basis for distinguishing the real from the unreal, and the true from the false, function as a regulative ideal in Peirce's philosophical scheme.

Peirce always emphasizes the social character of the individual. The very nature of the individual is determined by his forms of participation in community life.

A person is not absolutely individual. His thoughts are what he is saying to himself, that is, is saying to that other self that is just coming in to life in the flow of time. Hence one reasons, it is that critical self that one is trying to persuade and all thought what so ever is a sign, and is mostly of the nature of language. (5.421)

To put it differently, thought is a form of internal dialogue, and that dialogue presupposes a community in which there are effective standards and norms for discourse. Peirce emphasizes the social or communal nature of man which reflect Peirce's strong anti subjectivistic and anti individualistic stance. Here we can recall the platonic and Aristotelian concept of man. It was Plato who declares that *thought is an internal dialogue* and Aristotle who stated that *man is by nature a social or political animal*.

Now let us come back to the issue of normative sciences. A normative science is a theoretical and *studies what ought to be* (1.281). Peirce thought that the normative science could be thoroughly classified into logic, ethics and aesthetics. Logic is dependent on ethics; ethics dependent on aesthetics. Yet I want to suggest that this hierarchy of normative science by Peirce embodies a profound insight. Let us explain this insight.

Reasoning as we have seen is a deliberate form of voluntary conduct that involves the use of logic. Logic is the critique of argument and leading principles:

Logic not only lays down rules which ought to be, but need not be followed; but it is analysis of condition of attainment of something of which purpose is an essential ingredient (1.575)

This means if logic is to lay down rules that ought to be followed in reasoning, then there must be an appeal to an end or a purpose by which we can justify the rules that ought to be followed. *Logic is the study of the means of attaining the end of thought and it is ethics which defines that end* (2.198). The dependence of logic on ethics is expressed in other ways. *Thinking is a kind of action, and reasoning is a kind of deliberate action; and to call an argument illogical, or a proposition false, is a special kind of moral judgment* (8.191). *The whole operation of logical self*

control takes precisely the same quite complicated course which every one ought to acknowledge is that of effective ethical self control (5.533).

Logic then is a normative discipline, and the discipline from which we evaluate the norm of logic is ethics. I am not saying that Peirce advocates that logic ought to become moralistic. But Peirce did believe that the fundamental question of ethics is *what am I prepared deliberately to accept as the statement of what I want to do, what am I aim at, what am I after? And logic demands answer to this question, it is therefore impossible to be thoroughly and rationally logical except on an ethical basis (2.198)*. It means that all reasoning presuppose norms. An adequate account of reasoning demands reference to and critique of norms.

When we grapple with the claim that ethics is ultimately based on aesthetic, the issue is seems to me perplexing. The supremacy of aesthetics is emphasized only in some of Peirce's late paper. Yet I want to suggest that the line of argument that leads him to this conclusion is crucial for understanding his entire philosophy.

If we think of aesthetics with its normal connotation, rather than its original meaning, we will be misled. By aesthetics Peirce does not mean a study that is exclusively concerned with understanding, interpreting and appreciating the nature of such forms of art as painting, sculpture, music, etc. aesthetics is a science of ends, and the business of aesthetician *is to see what is the state of things which is most admirable in itself regardless of any ulterior reason (1.611)*.

The problem of aesthetics is *to determine by analysis what it is that one ought deliberately to admire per se regardless of what it may led to and regardless of its bearing up on human conduct (5.36)*. From this initial characterization it should be evident that the object with which

aesthetics is concerned is closely related to Plato's conception of good and Kant's idea of pure reason.

In a nutshell, the criteria of right and wrong in logic as well as in ethics ultimately depend on discovering and acknowledging the end of all human activity.

An ultimate end of action deliberately adopted, that is to say reasonably adopted, must be a state of thing that reasonably recommends it self aside from any ulterior consideration. It must be an admirable ideal, having the only kind of goodness that such an ideal can have, namely aesthetic goodness. From this point of view the morally good appear as a particular species of the aesthetically good (5.130)

What is this ultimate ideal? What is the *summum bonum*? What is admirable in itself and has this intrinsic aesthetic quality? If action is not the end or goal of human life, what is the end? Peirce answers:

So then the essence of reason is that its being never can have been completely perfected. It always must be in a state of incipency, of growth. It is like the character of a man which consists in the ideas that he will conceive and in the effort that he will make, and which only develops as the occasions actually arise. The development of reason requires as a part of it the occurrence of more individual events than ever can occur. It requires, too, all the coloring of all qualities of feeling, including pleasure in its proper place among the rest. The development of reason consists, you will observe, in embodiment that is in manifestation. The creation of universe, which did not take place during a certain busy weeks, in the year 4004 B.C., but is going on today and never will be done, is the very development of reason (1.615)

From this passage we can understand that, for Peirce, the growth of *concrete reasonableness* is the ultimate ideal of human life. This is the ideal by which Peirce himself lived.

4.2 Critical commonsensism

In order to understand better about critical commonsensism, first we need to have acquaintance with notions of Credibilism, Indubitability and fallabilism.

Credibilism, Peirce rely to the skeptics, is the position that accepts the Indubitability of some propositions. Such proposition is believed by all or most men, i.e., come through common sense, and are accepted in the absence of intensive analysis and prior to any systematic examination of alternatives. Moreover, such propositions are not at the moment in doubt they are incapable of being doubted, not because their negation are self contradictory but because the social and biological situation in which those who hold the propositions in question find themselves excludes condition which would allow for doubt. We can cite examples: *fire burns* (5.498), *there is some order in the universe* (6.496), *incest is a crime* (5.445).

Indubitability, for Peirce, does not mean “absolute certainty.” Rather it means “*freedom from genuine doubt*.” An indubitable proposition is any proposition against which no genuine doubt may be raised. If no experience disrupts a belief, then that belief is genuine or real, i.e., it is genuinely held.

Given the above meaning of Indubitability, it is possible for the same proposition to be indubitable at one time but not at another, so that the Indubitability of a proposition is no argument for its infallibility. This theoretical consideration is the basis for Peirce’s fallabilism.

By fallibilism, he mean one has in mind the view that there cannot be any guarantee that one proposition or another will always be immune to genuine doubt, then there is no inconsistency in holding that some propositions which are presently indubitable are, in principle, fallible.

As Peirce said, the critical common sensist fully acknowledges that even up on completing a given review of his own beliefs “*it may be that some of his indubitable belief may be proved false*” (5.451).

The critical common sensist is both a credibilist and fallibilist. As credibilist, he affirms that some propositions are presently free from genuine doubt; as fallibilist, he denies that there can be absolute immunity against such doubt.

As a fallibilist Peirce was obliged to hold that no belief deserves to rank as absolutely indubitable, so we should stand ready to doubt each of our belief; yet we cannot at once seriously doubt all of our belief and those we are unable to doubt, we are obliged to accept on pragmatic ground as distinguished from absolutely indubitable beliefs.

In connection to this, it would be pretty important to consider what Peirce would say about the task of philosophy.

Peirce wanted philosophy and other disciplines to follow the method of science.

Philosophy after all is, at its highest valuation, nothing more than a branch of science, and as such is not a matter of vital importance; and those who represent it as being so are simply offering us a stone when we ask for a bread (1.663)

Dominated by the view that science offered a perfect model of inquiry, he wanted to extend scientific methods to philosophy. According to Peirce, philosophy itself should become scientific.

Philosophy ought to imitate the successful sciences in its methods, so far as to proceed only from tangible premises which can be subjected to careful scrutiny, and to trust rather to the multitude and variety of its arguments than to the conclusiveness of any one. Its reasoning should not form a chain which is no stronger than its weakest link, but a cable whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected.(5.265)

This view of philosophy is more of a positivist conception of it. This standpoint has to be critically examined. Philosophy is not and ought not to aspire to be a science. It is one of the humanities. Instead of following the *scientistically* accepted principles in carrying out investigations, it relentlessly probes out the fundamental assumption and presupposition that underlies scientific principles. It seeks to know what all inquiries presuppose, what all of them need.

Conclusions

Peirce developed his Pragmaticism or his theory of knowledge as the true answer to both skepticism and dogmatism. Against the dogmatist, Peirce fallibilism maintains that absolute certainty, absolute exactitude, and absolute universality are unattainable. Against the skeptics Peirce maintain another set of proposition. It is this anti skeptical proposition, together with their consequence called infallibilism.

I believe that Peirce proposed to substitute for traditional, dogmatic metaphysics with a positive metaphysics or as he himself said, a *scientific metaphysics*. Thus as for metaphysics, he had no intention of reducing it to a collection of scientific proposition, but rather I wanted to say that metaphysics had to be *humanly* significant, i.e., faithful to mans growing experience of the world and of himself, aware of its limit, and willing to submit itself to the careful control of human reason.

To call something pragmatic is to say that it refers to practice or action. Peirce believes that concepts or at least the intellectual import of concept must be pragmatic. If you have a certain concept then you are prepared to act in a certain way. Or to put it the other way, you will act those ways because have the concept.

For Descartes, knowing always includes indubitable awareness of the truth of the proposition. In order for a belief to be taken as knowledge, for Descartes, the situation in which that belief could be false must be inconceivable. Descartes would accept Peirce's criticism that he should believe mathematical and sensory proposition. But there is a difference between believing and knowing. Descartes problem is philosophic in character rather than scientific. To put it differently, for Peirce man knows nothing in Descartes sense of

know. Peirce confuses Descartes sense of know with belief. Peirce has rejected the project of basing our knowledge on the foundation of certain truth. Rather he proposes a method to improve our believes.

Philosophy is not and ought not to aspire to be a science. It is one of the humanities. Instead of following the *scientistically* accepted principles in carrying out investigations, it relentlessly probes out the fundamental assumption and presupposition that underlies scientific principles. It seeks to know what all inquiries presuppose, what all of the need.

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