Peirce on Normative Science

Even as a boy Pierce was interested in the normative sciences. He recounts that he picked up his elder brother's textbook in logic and worked right through it on his own. Undoubtedly, his mathematician father encouraged and directed his interest. But logic was not the only normative science to which he early applied himself. He tells us that as an undergraduate at Harvard (ca. 1855) he expounded as best he could Schiller's *Aesthetische Briefe* to his friend Horatio Paine (2.197). Almost fifty years later he expressed regret that he had not followed up this study in a serious way, because he then saw how fundamental it is to a theory of knowledge (2.120, 2.197, 5.129ff.).

Although logic received most of Peirce's attention throughout his long career, still he was always interested in ethical systems (2.198). Until the 1880s, however, he considered ethics to be nothing more than an art or a practical science which relied little upon theoretical principles. It should be remembered that the first formulation of the pragmatic maxim—which he later called "a rough approximation" (5.16)—and his analysis of belief in terms of what one is willing to act upon appeared in the 1870s. Pierce says that he began to see the importance of ethical *theory* around 1882 (2.198). At that time he started to distinguish morality from "pure" ethics. As a result of this illumination he undertook a serious study of the great moralists (5.111, 5.129) and began to suspect that there was some important connection between ethics and logic (5.111). It was only some ten years later (ca. 1894) that this suspicion became a firm conviction (2.198) and only in about 1899 was he ready to say

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that ethics is truly a normative science (5.129). Peirce's judgment in this matter, therefore, was not hasty. It was the result of long reflection during the height of his intellectual powers (in 1899 Peirce was only 58 years old). Finally, in 1903 he made public his conclusions in the Lowell Lectures of that year (5.533), but even then he was not prepared to say apodictically that esthetics is a normative science, indeed the science upon which both ethics and logic ultimately rest. He was content with the modest proposal of an opinion and an hypothesis (5.129, 2.197).

Even though Peirce came to undertake a serious study of the normative sciences only late in his career, he did not consider them an appendix to pragmaticism or a mere afterthought. He was convinced of the fundamental importance of the normative sciences for a correct understanding of his system. It would be a basic mistake, therefore, to assume that because his exposition of their role is short and unsatisfactory, it is not an integral part of what he conceived to be his "architectonic system." It would perhaps be more correct to say that Peirce's realization of the place of these sciences put in his hands the capstone that unified all that he had been trying to do more or less successfully for some forty years. At least Peirce himself seems to have looked at it in this way.

In a letter to William James, dated November 25, 1902, Peirce remarks that many philosophers who call themselves pragmatists "miss the very point of it."

But I seem to myself to be the sole depository at present of the completely developed system, which all hangs together and cannot receive any proper presentation in fragments. My own view in 1877 was crude. Even when I gave my Cambridge lectures I had not really got to the bottom of it or seen the unity of the whole thing. It was not until after that that I obtained the proof that logic must be founded on ethics, of which it is a higher development. Even then, I was for some time so stupid as not to see that ethics rests in the same manner on a foundation of esthetics,—by which, it is needless to say, I don't mean milk and water and sugar. (8.255)

Other pragmatic positions, then, are only fragmentary. They lack the unity provided by a theory of the normative sciences, and this deficiency has led those positions into error—the error of making action the be-all and the end-all of thought (see, for example, 8.211–212, 1.343).
For Peirce, then, normative science is the study of what ought to be (1.218), of norms or rules which need not but ought to be followed (2.156). "Ought," then, excludes uncontrollable compulsion and rigid determinism, because it is always possible to act contrary to the "ought." The "ought" implies ideals, ends, purposes which attract and guide (1.575) deliberate conduct. Peirce sometimes refers to it as the science "which investigates the universal and necessary laws of the relation of Phenomena to Ends . . ." (5.121). Still, he looks upon normative science as positive science, that is, as an inquiry which seeks for positive knowledge expressible in categorical propositions.

By a positive science I mean an inquiry which seeks for positive knowledge; that is, for such knowledge as may conveniently be expressed in a categorical proposition. Logic and the other normative sciences, although they ask, not what is but what ought to be, nevertheless are positive sciences since it is by asserting positive, categorical truth that they are able to show that what they call good really is so; and the right reason, right effort, and right being, of which they treat, derive that character from positive categorical fact. (5.39)

The statements of normative science, then, make a truth claim. They are founded in experience—that same experience upon which philosophy in general is founded, namely, "which presses in upon every one of us daily and hourly" (5.120). ¹

It is understandable, therefore, why Peirce sometimes describes normative science as that which treats of phenomena in their Secondness (see 5.123, 5.125, 5.110, 5.111). As a positive science, it deals with fact, and fact is in the category of Secondness. Again, its proper and peculiar appreciations of the facts relate to the conformity of phenomena to ends (themselves not immanent in those phenomena), and this is another dyadic relation, or Secondness (5.126). In terms of the relation of phenomena to ends, normative science enables one deliberately to approve or disapprove certain lines of conduct. Thus, it is the science which separates the sheep from the goats, makes the dichotomy of good and bad (see 5.37, 5.110, 5.111). From every viewpoint, normative science involves an "emphatic dualism" (5.551).

Because normative science deals with "ought," that is, with de-
liberate conduct, and because it allows one to make value judgments concerning such conduct, one might be tempted to look upon it as an art or a practical science. We have seen that for many years Peirce himself so considered ethics (cf. 5.111). Yet Peirce insists again and again that normative science is purely theoretical, indeed, "the very most purely theoretical of purely theoretical sciences" (1.282; cf. 1.575, 5.125). To say that knowledge of normative science would directly and in itself help one to think more correctly, or live more decently, or create more artistically, would be like saying that a knowledge of the mechanics involved in a game of billiards would allow us to become master-players (see, for example, 2.3). A vast knowledge of physics does not make a good mechanic; nor is it so intended. Normative science looks primarily to an understanding of certain sets of conditions. Of course, Peirce sees and explicitly says that normative science is closely related to art (1.575), and that there are "practical sciences of reasoning and investigation, of the conduct of life, and of the production of works of art" (5.125) which correspond to the normative sciences "and may be probably expected to receive aid from them" (5.125).

But they are not integrant parts of these sciences; and the reason that they are not so, thank you, is no mere formalism, but is this, that it will be in general quite different men—two knots of men not apt to consort the one with the other—who will conduct the two kinds of inquiry. (5.125)

Normative science, then, is theoretical, and according to Peirce this is precisely why it is and must be called "normative" (1.281). Its business is analysis or definition (1.575).

Peirce feels obliged to emphasize that normative science is not a special science. It is a subdivision of philosophy and as such relies upon data available at any time to anyone through reflection upon experience. It does not require specialized techniques or apparatus for its observations, as physics or chemistry or psychology does. Furthermore, he insists that, although philosophy may make use of such special data now and then, it is not significantly aided thereby—not even by the results of psychology (5.125, 3.428). Thus, he frequently argues, the science of logic, contrary to the opinion of the German School, cannot be reduced to a matter of feeling. Ultimately, an argument cannot be judged valid because
of some instinctive feeling that it is so, or by a compulsion so to judge, or by appeal to an intuition (see 2.155ff., 2.19, 2.39–52, 3.432). In general, the psychological fact that men for the most part show a natural tendency to approve the same arguments as logic approves, the same acts as ethics approves, and the same works of art as esthetics approves is insignificant support for the conclusions of those sciences. And if one were to urge in a particular case, let us say, that something is logically sound simply because men have a strong and imperious tendency to think so, one would be arguing fallaciously (5.125). It would be much like arguing for the truth of a proposition from the certitude that one has about it, instead of justifying one’s certitude by establishing the truth of the proposition. In a paper written ca. 1906 Pierce makes exactly the same observations and adds a distinction that is quite to the purpose. He says that those logicians who make logic rest on psychology confound physical truths with psychological truths (5.485). Of course, logic rests upon the former since they are observational data (“of the rudest kind”) with which speculative grammar deals. It is such psychical truths Peirce has in mind when he explicitly admits that there is in a sense a compulsion at the base of logic, a compulsion arising from positive observation of a faulty situation, not a compulsion of mere feeling, or a compulsion based on the principles of another theoretical science (3.428). The mistake of the psychologizing logicians is not so much in recognizing the presence of a compulsion of some sort as in making logical consequenti- ality consist of “compulsion of thought” (3.432).³

Peirce warns that if the reader does not see that normative science deals with phenomena in their Secondness, the reason lies in a too narrow conception of that branch of philosophy (5.125). He takes care to point out two ways in which modern philosophy generally misconstrues the nature of normative science. In the passages we are about to consider, his references to these errors are exceedingly brief, and thus enigmatic. A certain amount of explanation is necessary to understand why he considers these views so important, and to realize in what way they differ radically from his own.

The first mistake, according to Peirce, is to think that the chief and only concern of normative science is to differentiate goodness and badness and to say to what degree a given phenomenon is
good or bad. The error here is to think of normative sciences mathematically or quantitatively, instead of qualitatively. The distinctions that are of interest in normative science are those of kind, not of degree. Thus, Peirce says that logic, in classifying arguments, recognizes different kinds of truth; ethics admits of qualities of good; and esthetics is so concerned with qualitative differences "that, abstracted from, it is impossible to say that there is any appearance which is not esthetically good" (5.127). In a word, the important question for normative science is not how good something is, but whether it is good at all. Peirce calls this "negative goodness" or "freedom from fault."

I hardly need remind you that goodness, whether esthetic, moral or logical, may either be negative—consisting in freedom from fault—or quantitative—consisting in the degree to which it attains. But in an inquiry, such as we are now engaged upon, negative goodness is the important thing. (5.127)

In other words, a quantitative treatment of goodness would suppose that it comes in discrete packages, whereas in reality goodness is a continuum. In a certain sense, goodness does not admit of degrees. It is of the nature of a quality—of a Firstness—and is what it is without reference to anything else. To be sure, goodness involves a complex relation (for example, in the case of moral goodness, between end, means, intention, and circumstances), but goodness qua goodness is an undifferentiated quality. Thus, the old scholastic maxim: bonum ex integra causa, malum ex quocumque defectu. Nor does this insight into the continuity of goodness conflict with our use of comparative and superlative degrees of the adjective "good," because they refer to a concrete subject participating or sharing in goodness, not to the quality itself. Again, Peirce would not deny that one might be able to set up a quantitative scale of measurement to indicate the degree in which a certain set of concrete subjects share in goodness, but he would insist that such a scale is, to some extent at least, arbitrary and can never claim exactitude.

The second mistake of modern philosophy in this matter is to think that normative science relates exclusively to the human mind. "The beautiful is conceived to be relative to human taste, right and wrong concern human conduct alone, logic deals with human
reasoning" (5.128). Pierce tells us that in the truest sense these sciences are sciences of mind, but that the mistake is to think of mind in the narrow Cartesian way as something that "resides" in the pineal gland.

Everybody laughs at this nowadays, and yet everybody continues to think of mind in this same general way, as something within this person or that, belonging to him and correlative to the real world. A whole course of lectures would be required to expose this error. I can only hint that if you reflect upon it, without being dominated by preconceived ideas, you will soon begin to perceive that it is a very narrow view of mind. I should think it must appear so to anybody who was sufficiently soaked in the Critic of the Pure Reason. (5.128)

Indeed, it would take "a whole course of lectures" to present Peirce's theory of mind. But, clearly, Peirce is making the same point here as he made in his letter to James (8.256) where he labeled as nominalistic (and hence erroneous) the notion that thought is in consciousness rather than consciousness in thought. Mind is thought, and thought is Thirdness, and Thirdness is ubiquitous. The human mind is only one manifestation of Mind, the highest perhaps because it has the greatest capacity for self-control, but not unique. Here again Peirce is insisting upon the continuity of reality. If mind is anywhere, it is everywhere in one form or another.

Peirce divided normative science into three disciplines: esthetics, ethics, and logic. This division was, in his eyes, by no means arbitrary. It had an inner logic dictated by the very process of reasoning itself. To appreciate fully the great importance Peirce attached to these three disciplines it is necessary to examine their close interrelation. It will become evident that what Peirce means by esthetics, ethics, and logic is not exactly what has been traditionally meant. He tended to keep the terminology because it was close enough to his own conception to introduce the reader and direct his attention to the general area he was to discuss. I think that it will become clear as we proceed that Peirce's early hesitation to call ethics a theoretical science and his persistent doubts about the nature of esthetics can be traced to a confusion in his own mind and in the literature he read as to what these subjects treat.
Let us begin, then, by examining at length one of Peirce's earliest presentations of the divisions of normative science and their interrelation. In his text on "Minute Logic" (ca. 1902), he explains that after a study of phenomenology one must undertake "the logic of the normative sciences, of which logic itself is only the third, being preceded by Esthetics and Ethics" (2.197). He tells us that he had only recently come to realize the importance of esthetics in logical theory and that he is not completely clear about the matter yet himself. He goes on to say, as we have seen, that for a long time he had looked upon ethics as an art and that, again, only recently he had come to appreciate both its role as a theoretical science and its connection with logic (2.198). He had until then not clearly distinguished ethics from morality. His mistake was to think ethics was correctly defined as the science of right and wrong. Only when he realized that these are themselves ethical conceptions did he see that they could not be used to define ethics.

We are too apt to define ethics to ourselves as the science of right and wrong. That cannot be correct, for the reason that right and wrong are ethical conceptions which it is the business of that science to develop and to justify. A science cannot have for its fundamental problem to distribute objects among categories of its own creation: for underlying that problem must be the task of establishing those categories. (2.198)

Ethics, then, is not concerned directly with pronouncing this course of action right and that wrong, but with determining what makes right right and wrong wrong. It has to do with norms or ideals in terms of which those categories have meaning. Peirce therefore came to see ethics as the science of ends.

The fundamental problem of ethics is not, therefore, what is right, but, what am I prepared deliberately to accept as the statement of what I want to do, what am I to aim at, what am I after? . . . It is Ethics which defines that end. (2.198)

Now it becomes clear just what the relation of ethics to logic is. Logic deals with thinking, and thinking is a kind of deliberate activity. It, therefore, has an end. But if ethics is the science that defines the end of any deliberate activity, it also defines the end of thinking. Logic is a study of the means of attaining that end, that is, the study of sound and valid reasoning. The dependence
of logic on ethics, therefore, is apparent. Thus, Peirce concludes, “it is, therefore, impossible to be thoroughly and rationally logical except upon an ethical basis” (2.198).

A similar line of reasoning holds good for esthetics. Peirce began to appreciate its importance as a theoretical science and as the foundation of ethics only when he began to realize that esthetics should no more be defined in terms of beauty than ethics should be defined in terms of right. The reason is the same: the beautiful and the ugly are categories within esthetics. It is precisely these categories that esthetics must establish and justify. Again, esthetics, as a theoretical discipline, does not judge this or that to be beautiful, or this or that to be ugly. It has to do with the norms and ideals in terms of which we can define, and ultimately apply to, these categories. And so it is closely allied with ethics. Peirce reasons this way:

Ethics asks to what end all effort shall be directed. That question obviously depends upon the question what it would be that, independently of the effort, we should like to experience. But in order to state the question of esthetics in its purity, we should eliminate from it, not merely all consideration of effort, but all consideration of action and reaction, including all consideration of our receiving pleasure, everything in short, belonging to the opposition of the ego and the non-ego. (2.199)

Esthetics, then, deals with ends (or more properly the end) in themselves. It studies the admirable per se, regardless of any other consideration. This is the ideal of ideals, the sumnum bonum.⁶ As such it needs no justification; it is what it is and gives meaning to the rest. As such it belongs to the category of Firstness. English has no suitable word for it, Peirce observes, but the Greek kalos comes close. “Beautiful” will not do, because kalos must include the unbeautiful as well. Whatever term may be chosen to express it, the question of esthetics is to determine what is admirable, and therefore desirable, in and for itself (2.199).

Upon this question ethics must depend, just as logic must depend upon ethics. Esthetics, therefore, although I have terribly neglected it, appears to be possibly the first indispensable propedeutic to logic. . . . (2.199)
Peirce's position in this section of the "Minute Logic" is clear enough and makes good sense in terms of his revised notions of ethics and esthetics. Human action is reasoned action, but reasoned action is deliberate and controlled. Deliberate and controlled action is action governed by ends, but ends themselves may be chosen, and that choice, to be rational, must be deliberate and controlled. This ultimately requires the recognition of something admirable in itself. Logic, as the study of correct reasoning, is the science of the means of acting reasonably. Ethics aids and guides logic by analyzing the ends to which those means should be directed. Finally, esthetics guides ethics by defining what is an end in itself, and therefore admirable and desirable in any and all circumstances regardless of any other consideration whatsoever. As we shall see, Peirce concludes that this *summum bonum* is nothing else than reasoned and reasonable conduct. Ethics and logic are specifications of esthetics. Ethics proposes what goals man may reasonably choose in various circumstances, while logic proposes what means are available to pursue those ends.

A problem arises, however, as we read on in the "Minute Logic." The fourth chapter deals specifically with normative science, and in it Pierce seems to contradict what he has said previously. There he seems to deny that pure ethics and esthetics are normative sciences at all. He seems to say that only logic is truly normative. Is there any way around the apparent inconsistency?

Peirce begins the chapter by enumerating various general positions concerning the number and nature of divisions of normative science. Everyone is agreed that logic is normative. The majority of writers also include esthetics and ethics, so that the division corresponds to the ancient triad of ideals: the true, the beautiful, and the good. Others, however, admit only two normative sciences, namely, logic and ethics. The former would consider the conformity of being to thought. According to the latter, logic and ethics are normative precisely because nothing can be logically true or morally good without a purpose to be so. Thus, the conformity therein involved is controlled and deliberate. But such control seems to be conspicuously lacking when it is a question of something's being beautiful or ugly. It simply is beautiful or is ugly without any purpose so to be. Consequently, they exclude esthetics from the trio (1.575).
Finally, there seems to be some doubt as to whether ethics is truly normative. The subject matter of pure ethics is not "right and wrong" or "duties and rights." These are practical matters that make "heavy drafts upon wisdom" (1.577). No, these questions are a superstructure raised upon the foundations of pure ethics. The question at the center of pure ethics is "What is good?" and this is not normative, but prenormative. The reason, Peirce explains, is that:

It does not ask for the conditions of fulfillment of a definitely accepted purpose, but asks what is to be sought, not for a reason, but back of every reason. Logic as a true normative science, supposes the question of what is to be aimed at to be already answered before it could itself have been called into being. Pure ethics, philosophical ethics, is not normative, but prenormative. (1.577)

It certainly seems that here Peirce makes logic the only "true normative science." This is not to deny, however, that it depends on the answer that ethics gives to the prenormative question "What is good?" And there is no use objecting that logic already has its own object, truth, because in the final analysis logic must face the question "What is truth?" In other words, just what is it that logic seeks? And, of course, this involves the question of ethics in a particular context: truth is a good (cf. 1.578–579). "Truth is nothing but a phase of the summum bonum, the subject of pure ethics" (1.575).

There is a real difficulty in reconciling this chapter with the earlier one. The problem stems from Peirce's inability to decide clearly, once for all, just what is to be included in the discipline called "ethics." He is searching in this work and will continue to search until almost the end of his career when he will discard that terminology altogether. The same is true of his presentation of esthetics, but his difficulty is more acute. The reader will have perhaps already remarked that, in the passages just discussed, what Peirce deems pure, prenormative, ethics in the fourth chapter sounds very much like the esthetics he discussed in an earlier chapter. Nevertheless, the inconsistencies that one would expect to find in an original theory (at least in the first stages of articulation) are not destructive of the essential insight that Peirce is trying to express. Some clear gains have been made, and the line of
thought is beginning to emerge. Furthermore, some remarks can be made that diminish somewhat the confusion these inconsistenc-ies may cause.

In the first place, when reading the "Minute Logic," one must remember that it is a text on logic. Consequently, logic will be the center of attention and the main perspective from which the entire work will be developed. Thus, for example, in the section entitled "Why Study Logic?" Peirce says that he is to treat, not precisely the normative sciences, but "the logic of the normative sciences" (2.198). So, too, when he points out the importance of esthetics as "propedeutic to logic," he concludes that "the logic of esthetics" ought not be omitted from the science of logic (2.199). This fact may help us to understand in part why Peirce in the fourth chapter makes esthetics and ethics prenormative. His main interest is logical; logic certainly is a "true normative science"; esthetics and ethics are necessary "propedeutics." Hence, from that point of view one could think of them as in a sense prenormative—that is, pre-logical. There is some textual evidence that Peirce was thinking of the topic in this way. Thus, after he has reviewed the current opinions as to the number of normative sciences, he remarks:

Those writers, however, who stand out for the trinity of normative sciences do so upon the ground that they correspond to three funda-mental categories of objects of desire. As to that, the logician may be exempted from inquiring whether the beautiful is a distinct ideal or not; but he is bound to say how it may be with the true. . . . (1.575)

Peirce, then, writing as a logician, explicitly disclaims any respon-sibility for settling the question of the number of normative sci-ences. The only point he feels obligated to make is that the true is an aspect of the good and that, therefore, logic can be satisfactorily studied only once it has taken into consideration its purpose and end.

In the second place, Peirce identifies the usual tripartite division of normative science in his chapter on ethics with positions he had criticized earlier. This is clearly the case in his discussion of esthet-ics, and a case, less strong perhaps, might also be made for what he says about ethics. It will be remembered that here in Chapter Four he says that the usual division of the normative sciences into
logic, esthetics, and ethics makes their objects the true, the beautiful, and the good. Yet earlier he had said that esthetics had been seriously handicapped by its definition as the science of the beautiful. Now this apparent inconsistency might be diminished if we look at it this way: those who (like Schleiermacher) would exclude esthetics from the normative sciences are correct if esthetics has as its subject matter, or object of study, the beautiful. The reason would be simply this: if the beautiful is the object about which esthetics concerns itself, not merely a category within that science, it must be an ultimate. There could be no argument about it; it could not be subjected to any criticism; there could be no legitimate and resolvable difference of opinion as to what is beautiful and what is not. One would see that "X" is beautiful or one would not. In other words, esthetics could not be a science that would allow one to decide and to judge that something is beautiful or not. It would not be normative at all in this regard, but at most phenomenological. The beautiful would be a "non-natural quality," and any attempt to analyze it would be to fall into the "naturalistic fallacy." On this view, then, it would be correct to say that esthetics is not normative with regard to questions of beauty, but perhaps prenormative. On the other hand, if esthetics is defined, as it was in the earlier section of the "Minute Logic," as the science of the admirable per se, it may be considered normative in this respect precisely because it investigates the ideal in terms of which one might separate the sheep from the goats, the beautiful from the ugly, and defend and justify that discriminatory judgment in terms of a norm. It is doubtful whether Peirce saw this distinction clearly here, because in a later discussion he was still struggling with the question of whether there can be such a thing as aesthetic goodness and badness. Yet if it is admitted that this analysis could have been lurking just behind the clarity of consciousness, then all that would have been necessary for Peirce to avoid his apparent inconsistency would have been to state that he was discussing two different conceptions of esthetics.

A similar, though perhaps less convincing, case might be made for what he says about ethics. The difficulty here, however, is that the former mistake to which he objected was not in defining ethics as concerned with the good, but with right and wrong, duties and rights. Still, although he is not so explicit about it as in the case of
esthetics, we suspect his thinking is the same. For if one takes the good as the object of ethical study and not as a category within the science, again it becomes an ultimate, which cannot be judged but merely recognized. Such a study cannot be normative, but only prenormative. It cannot justify the distinction of good and bad; it can only accept it as a primitive given. Again, we have something like G. E. Moore's familiar notion. If Pierce had this in mind as the paradigm of theoretical ethics when he wrote the fourth chapter of the "Minute Logic," it is understandable why he looked upon it as prenormative. On the other hand, if in the earlier section he was objecting to the indescribability of goodness, and rejecting at least implicitly the "naturalistic fallacy" as no fallacy at all, then he would be justified in making ethics a theoretical, normative science, a science of ends, in terms of which one might judge goodness and badness, insofar as goodness and badness were not "non-natural" properties but qualities arising from the complex relation of conformity and disconformity to ends.7

In any case, Peirce has made this significant gain: he has seen that truth and goodness are intimately connected. He will exploit this insight in his Pragmatism Lectures of 1903. There he will strive to show that logic, ethics, and esthetics deal with three kinds of goodness, and that this goodness is ultimately reasonableness manifesting itself in three different ways. Let us consider in some detail what he has to say in these famous lectures.

In the first lecture, "Pragmatism: The Normative Sciences," Peirce again tells us that traditionally the normative sciences have been numbered as three: logic, ethics, and esthetics, and that he will continue to employ these terms. He characterizes these sciences as those which distinguish good and bad in the representation of truth, in the efforts of the will, and in objects regarded simply in their presentation, respectively (5.36). Thus he begins to develop explicitly the notion that the sciences in question all deal with kinds of goodness.

The purpose of this first lecture is to sketch the connection between his form of pragmatism and the normative sciences. After expounding his maxim, he makes this important inference:

For if, as pragmatism teaches us, what we think is to be interpreted in terms of what we are prepared to do, then surely logic, or the
doctrine of what we ought to think, must be an application of the
document of what we deliberately choose to do, which is Ethics. (5.35)

Pragmatism is a doctrine of logic. It is a logical method helping us
to know just what we think and believe. The meaning of our
thought is to be interpreted in terms of our willingness to act
upon that thought; it is to be interpreted in terms of its conceived
consequences. Peirce, then, sees a connection between thinking
and doing, and therefore a connection between good thinking and
good doing. What we are prepared to accept as proper conduct,
good conduct, approvable conduct, as the interpretant of our think-
ing, must be the measure of proper, good, acceptable—in a word,
\textit{logical} thinking. Thus, logic depends upon ethics. But in its turn
ethics must depend upon something else. Conduct is approved or
disapproved to the degree that it conforms or fails to conform to
some purpose, but the question remains as to what purposes are
to be adopted in the first place.

But we cannot get any clue to the secret of Ethics . . . until we
have first made up our formula for what it is that we are prepared
to admire. I do not care what doctrine of ethics be embraced, it
will always be so. (5.36)

To determine what we are prepared to admire, what is admirable
per se, is the task of esthetics.

It \textit{ethics} supposes that there is some ideal state of things which,
regardless of how it should be brought about and independently of
any ulterior reason whatsoever, is held to be good or fine. In short,
ethics must rest upon a doctrine which, without at all considering
what our conduct is to be, divides ideally possible states of things
into two classes, those that would be admirable and those that would
be unadmirable, and undertakes to define what it is that constitutes
the admirableness of an ideal. (5.36)

Esthetics, then, attempts to analyze the \textit{sumnum bonum}, the abso-
lutely ideal state of things which is desirable in and for itself regard-
less of any other consideration whatsoever. Esthetics, then, studies
the ideal in itself; ethics, the relation of conduct to the ideal; and
logic, the relation of thinking to approved conduct. 8

In the following lectures in the series, Peirce continues to ham-
mer home the key insight into the normative sciences: they all
have to do with goodness and badness, with approval and disapproval. Thus, the essence of logic is to criticize arguments, that is, to pronounce them acceptable or not, good or bad (5.108). But to say that certain arguments are good or bad implies that they are subject to control. It supposes that in the future we can avoid using bad arguments and strive to use good ones. Indeed, the very notion of criticism implies the ability to control, and to correct.

Any operation which cannot be controlled, any conclusion which is not abandoned, not merely as criticism has pronounced against it, but in the very act of pronouncing that decree, is not the nature of rational inference—is not reasoning. Reasoning as deliberate is essentially critical, and it is idle to criticize as good or bad that which cannot be controlled. Reasoning essentially involves self-control; so that the logica utens is a particular species of morality. (5.108)

The distinction of logical truth and falsity, then, is nothing but the distinction of logical goodness and badness, which in turn is only a special case of moral goodness and badness. This is the very heart of the matter. It is the very heart of Peirce’s logic and of his entire philosophical outlook. To make a normative judgment is to criticize; to criticize is to attempt to correct; to attempt to correct supposes a measure of control over what is criticized in the first place. Any other kind of criticism, any other conception of goodness and badness, is idle (see 2.26). In this Peirce was directly opposed to almost all other schools of thought of his day.9 Two of these positions he considered to be of particular importance because their objections to his own position are serious and not easily answered. The first objection says that Peirce’s position makes logic a question of psychology (5.110). Now, this is John Stuart Mill’s view and one that Pierce criticized at length again and again (see, for example, 2.47–51). The principle on which Mill based his opinion is that to say how a man ought to think has to be based ultimately on how he must think. In the passage we are now examining Peirce does not take up a detailed reply. In like measure, we will content ourselves with his simple denial of the allegation.

The first [objection] is that this [Peirce’s position] is making logic a question of psychology. But this I deny. Logic does rest on certain
facts of experience among which are facts about men, but not upon any theory about the human mind or any theory to explain the facts. (5.110)

Psychology, like any science, theorizes about facts. In Peirce's view, logic itself theorizes about facts, not about another theory. The second objection is more serious and, on Peirce's own admission, deceived him for many years (5.111). It argues that by making logic dependent upon ethics, and ethics dependent upon esthetics, he in effect has fallen into the error of hedonism. What is more, such a hierarchical arrangement of the normative sciences involves a basic confusion of the categories of Firstness and Secondness (5.110). Clearly, this objection is a difficulty that Peirce proposed to himself and that prevented him for a long time from seeing the importance of normative science for his own thought. On the one hand, he had been convinced from early in his career of the error of hedonism, and on the other, he did not clearly see how to avoid an inconsistency in his doctrine of the categories if he accepted the traditional triple division of normative science.10 Let us consider in some detail, then, how Peirce resolved this problem.

The answer came to him through a more penetrating analysis of his categories. He began to realize that one can and does have a representation of a second or a first as well as of a third. With this new light it was clear to him that, "To say that morality, in the last resort, comes to an esthetic judgment is not hedonism—but is directly opposed to hedonism" (5.111). How is this so? Well, consider the phenomena of pleasure and pain to which the hedonist appeals as the ultimate factors in a man's choice. They are not mainly phenomena of feeling at all (5.112). Peirce says that, despite his special training in recognizing qualities of feeling, he cannot discover any such quality common to all pains (5.112). All that careful observation reveals is that "there are certain states of mind, especially among states of mind in which Feeling has a large share, which we have an impulse to get rid of" (5.112). To add that such an impulse is excited by a common quality of feeling is a theory, not a fact. Therefore, hedonism cannot claim to be a giver of experience, although, like any other theory, it appeals to experience for confirmation. Furthermore, granting that the phenomena of pleasure and of pain are prominent only in those states of mind in
which feeling is predominant, they do not consist in any common 
feeling-quality of pleasure or of pain (even supposing that there 
are such qualities (5.113). If one analyzes the phenomenon of pain, 
one will see that it consists in “a Struggle to give a state of mind 
its quietus” (5.113). It is, therefore, in essence an event, an actual-
ity, not just a mere quality of feeling; or, in terms of the categories, 
pain is essentially a second, not a first, although undoubtedly it is 
accompanied by a first. A similar analysis of pleasure will reveal 
that it consists in “a peculiar mode of consciousness allied to the 
consciousness of making a generalization, in which not Feeling, 
but rather Cognition is the principle constituent” (5.113). In other 
words, Pierce analyzes pleasure as a sort of third—an affair of 
mind, not of mere conscious feeling:11

it seems to me that while in esthetic enjoyment we attend to the 
totality of Feeling—and especially to the total resultant Quality of 
Feeling presented in the work of art we are contemplating—yet it 
is a sort of intellectual sympathy, a sense that here is a Feeling that 
one can comprehend, a reasonable Feeling. I do not succeed in 
saying exactly what it is, but it is a consciousness belonging to the 
category of Representation, though representing something in the 
Category of Quality of Feeling. (5.113)

Thus, to make esthetics the science upon which the other two 
normative sciences depend is not to subscribe to hedonism and is 
not to confuse the categories. The categories are not confused, 
because esthetics deals with the representation (a third) of a quality 
of feeling (a first), just as ethics deals with a representation (a third) 
of an action (a second), and logic with a representation of thought 
(a third). Again hedonism is avoided, because on this view pleasure 
consists in something intellectual—it is not the case that something 
is deliberately approved because it is pleasurable; rather, some-
thing is pleasurable (esthetically pleasing) because it is approved 
of. Perhaps it would be more accurate to say that Peirce is saying 
that something is pleasurable because it is reasonable, not vice 
versa.12

In the Pragmatism Lectures, therefore, Peirce has once for all 
linked logical truth and falsity to moral goodness and badness. He 
is still not absolutely sure that there is a science of esthetics (so 
that moral goodness and badness would be a species of esthetic
goodness and badness), but he is inclined to think so, and for the sake of developing his line of thought assumes that there is one (5.129). It is essential to notice that Peirce at this point has made an important connection between goodness and badness and conformity or disconformity to an end or ideal. Normative science in general is the science of the laws of conformity of things to ends; normative sciences in particular are distinguished in terms of what sort of "things" one is considering in relation to their ends:

Esthetics considers those things whose ends are to embody qualities of feeling, ethics those things whose ends lie in action, and logic those things whose end is to represent something. (5.129; see also 3.340ff.)

The "things" he is talking about are more precisely aspects or modes of things corresponding to the three universal categories of Firstness, Secondness, and Thirdness. In Scholastic terms we might say that Peirce distinguishes these sciences by their "formal objects." Qua sciences, however, each normative science employs representations of its formal object, and these representations are of course thirds. Qua normative, each of these sciences treats its object in its Secondness, precisely because it is engaged in judging good and bad within the phenomena considered.

In the remainder of the section we have been considering (5.130), Peirce argues in much the same way as he did before. Logic criticizes and classifies arguments. This criticism and classification implies quantitative approval (or disapproval) of the arguments so analyzed. In turn, approval supposes control of what we approve. Hence, inference is a voluntary act. But the approval of a voluntary act is a moral approval. Hence, logic is a kind of moral conduct and so is subject to ethical norms. At this point, however, Peirce again manifests some lingering doubts about esthetics.

Ethics—the genuine normative science of ethics, as contradistinguished from the branch of anthropology which in our day often passes under the name of ethics—this genuine ethics is the normative science par excellence, because an end—the essential object of normative science—is germane to a voluntary act in a primary way in which it is germane to nothing else. For that reason I have some lingering doubt as to there being any true normative science of the beautiful. (5.130)
The emphasis has shifted from that of the "Minute Logic." We have seen that there logic upstages all other considerations to the point that Peirce calls pure ethics "prenormative." Here he stresses the dependence of logic on ethics, and he has come to see that because reasoning in the last analysis is a voluntary act, ethics, not logic, is the normative science. But precisely because of this insight he finds difficulty fitting esthetics into the scheme. The problem is always the same: things seem to be beautiful or ugly independently of any purpose so to be (see above and my remarks about "the beautiful" being the object of esthetics). Still, if by the "beautiful" we mean what is kalos, what is admirable in itself, Peirce feels that the only kind of goodness such an ideal can have is esthetic, and so the morally good is a species of the esthetically good after all.

On the other hand, an ultimate end of action deliberately adopted—that is to say, reasonably adopted—must be a state of things that reasonably recommends itself in itself aside from any ulterior consideration. It must be an admirable ideal, having the only kind of goodness that such an ideal can have; namely, esthetic goodness. From this point of view the morally good appears as a particular species of the esthetically good. (5.130)

But just what is the esthetically good? What is the admirable in itself? In the first place, according to the doctrine of the categories, it must be of the nature of a first. It must be some positive, simple, immediate quality pervading a multitude of parts. It makes no difference what subjective effect that quality may produce in us; it is esthetically good.

In the light of the doctrine of the categories I should say that an object, to be esthetically good, must have a multitude of parts so related to one another as to impart a positive simple immediate quality to their totality; and whatever does this is, insofar, esthetically good, no matter what the particular quality of the total may be. If that quality be such as to nauseate us, to scare us, or otherwise disturb us to the point of throwing us out of the mood of esthetic enjoyment . . . then the object remains none the less esthetically good, although people in our condition are incapacitated from a calm esthetic contemplation of it. (5.132)

But from this account follow a number of startling and paradoxical conclusions. In the first place, there is no such thing as positive
esthetic badness. Everything is what it is, and as such has some quality pervading its totality. Everything, then, to this extent is esthetically good. (The Scholastics called this ontological goodness.) In the second place, if one considers goodness and badness as relative terms, then one might also correctly say that there is no such thing as esthetic goodness. This is the very conclusion that Peirce draws (5.132). All that one has is various esthetic qualities, which are what they are.

All there will be will be various esthetic qualities; that is, simply qualities of totalities not capable of full embodiment in the part, which qualities may be more decided and strong in one case than in another. But the very reduction of the intensity may be an esthetic quality; nay, it will be so; and I am seriously inclined to doubt there being any distinction of pure esthetic betterness and worseness. My notion would be that there are innumerable varieties of esthetic quality, but no purely esthetic grade of excellence. (5.132)

What is behind Peirce's continual hesitation about esthetics is perhaps becoming clearer. It seems to be this: normative science supposes criticism and control; but esthetic qualities seem to be just what they are regardless of anything else and so are beyond criticism and beyond control. The distinction of good and bad implies approval and disapproval. But in what sense can one approve or disapprove of something that is ultimate? In a way one can only recognize it for what it is, unless one's approval of an aim makes it ultimate. Peirce, however, cannot subscribe to that without reservation, since that would make that ultimate subjective and arbitrary.

Thus Peirce, in the following paragraph, considers another moment in the process of adopting ideals, namely, the instant when an esthetic ideal is proposed as an ultimate end of action. Now it is no longer simply a question of considering the ideal itself, but of my adopting or rejecting that ideal. Peirce talks in terms of Kant's categorical imperative pronouncing for or against the ideal, but with this important difference: while for Kant the imperative is itself beyond control, for Peirce it is not. The imperative itself is open to criticism, and this is what makes it rational (5.133). At this point, then, there is room for a distinction between good and bad aims: a good aim is one that can be consistently pursued; a
bad aim is one that cannot. It follows, then, that a bad aim cannot be ultimate. A good aim, Peirce tells us, becomes ultimate once it is unalteringly adopted, because then it is beyond criticism (5.133).

The question, then, is to ascertain what end or ends are possible, that is, what end or ends can be consistently pursued under all possible circumstances. This is the problem of the *summum bonum*. The difficulty, however, is that here Peirce makes this inquiry a problem of ethics rather than of esthetics. Nevertheless, the general line of his thinking in the matter is clear enough, though he is having a great deal of trouble classifying the steps according to the traditional triad of the normative sciences. Perhaps at this point it would be well to consider his final formulation of the normative sciences to see how he recognized and attempted to meet these difficulties.

In the "Basis of Pragmaticism" (1905–1906) Peirce shows in his usual way that "the control of thinking with a view to its conformity to a standard or ideal is a special case of the control of action" (1.573). Thus, the theory of controlling thinking, "Logic," must be a special determination of the theory of controlled action—what he has up to now called "Ethics." The theory of the control of conduct and action in general is the second of the trio of normative sciences and the one "in which the distinctive characters of normative science are most strongly marked." What should this science be called?

Since the normative sciences are usually held to be three, Logic, Ethics, and [Esthetics], and since he [Peirce], too, makes them three, he would term the mid-normative science ethics if this did not seem to be forbidden by the received acception of that term. (1.573)

At least Peirce seems to have become aware of one of the obstacles in his earlier attempts to classify the "mid-portion of coenoscopy"—the usual way in which the term "ethics" had been used. Traditional treatises on ethics included much more than he wanted to include in the mid-normative science. Thus, for instance, they included analyses of the idea of *summum bonum* to which action was to conform. But Peirce wishes to make the mid-normative science only a theory of the conformity of action to an ideal, reserving the
study of the ideal itself for another science, esthetics. This throws
a good deal of light on the apparent confusion in his lectures on
pragmatism discussed in the preceding paragraphs. There he was
using the term “ethics” in its traditional sense and applying it to
the mid-normative science. Hence, what he includes under “eth-
ics” and “esthetics” overlapped. To make the distinction sharper
he proposes new terminology.

He [Peirce] accordingly proposes to name the mid-normative sci-
ence, as such (whatever its content may be) antethics, that is, that
which is put in place by ethics, the usual second member of the
trio. It is the writer’s opinion that this antethics should be the
theory of the conformity of action to an ideal. Its name, as such,
will naturally be practics. Ethics is not practics. . . . (1.573)

Peirce’s problem with esthetics had always been to make sense
of goodness and badness applied to esthetic qualities since they
seemed to be entirely beyond criticism and control. By the time
he wrote the “Basis of Pragmaticism,” a number of considerations
had helped him come to a satisfactory solution. The line of reason-
ing which would offer an answer seems evident to us. What is
required is a distinction between esthetic qualities in themselves,
that is, in their own intrinsic reality, and the conscious adoption of
them as ideals to be pursued—similarly, in the case of the ultimate
aim, the sumnum bonum, a distinction between its own objective
reality and its conscious acceptance and approval. Armed with this
sort of distinction one could argue that the business of esthetics is
to seek out through reflective analysis (see 1.580) what end is ulti-
mate (can be consistently pursued in any and all circumstances)
and to use this as a norm in adopting any particular esthetic quality
as an ideal. According to this account of esthetics there would be
the necessary element of criticism and control even with respect
to the sumnum bonum—not in the sense that the objective reality
of that bonum would be affected, but in the sense that one would
accept it and conform to it willingly and deliberately. The only
question is whether or not Peirce had such an explanation in mind.

There can be little real doubt that Peirce did come to this sort
of solution, although a detailed proof would require many more
pages of analysis than I have available. There is sufficient evidence
for my immediate purpose in the following paragraph from the 1906 “Basis of Pragmatism”:

Every action has a motive; but an ideal only belongs to a line of conduct which is deliberate. To say that conduct is deliberate implies that each action, or each important action, is reviewed by the actor and that his judgment is passsed upon it, as to whether he wishes his future conduct to be like that or not. His ideal is the kind of conduct which attracts him upon review. His self-criticism, followed by a more or less conscious resolution that in its turn excites a determination of his habit, will, with the aid of the sequelae, modify a future action; but it will not generally be a moving cause to action. It is an almost purely passive liking for a way of doing whatever he may be moved to do. Although it affects his own conduct, and nobody else’s, yet the quality of feeling (for it is merely a quality of feeling) is just the same, whether his own conduct or that of another person, real or imaginary, is the object of the feeling; or whether it be connected with the thought of any action or not. If conduct is to be thoroughly deliberate, the ideal must be a habit of feeling which has grown up under the influence of a course of self-criticisms and of hetero-criticisms; and the theory of the deliberate formation of such habits of feeling is what ought to be meant by esthetics. (1.574)

The first thing to notice is that in this passage it is not a question of the ideal in itself, but rather of the ideals as the agent’s. It is a question of what attracts him upon review. Thus, Peirce has shifted the emphasis from the “admirable per se” to a consideration of the habit of feeling in the agent in the presence of certain ends proposed as ideals. An end is made the agent’s ideal through the mediation of habit, and, in its turn, habit, by its aspect of efficacious determination, will modify action in terms of the ideal so adopted. The second thing to remark is that the habits of feeling through which one makes an ideal one’s own are subject to criticism and control. They develop; they are modified; they are corrected. Consequently, the ideals that one adopts are subject to criticism and control—or, better, the adoption of this or that ideal is subject to control. In the case of the ultimate ideal or sumnum bonum, of course, its deliberate adoption is conditioned only by its recognition, since refusal to make it one’s own would involve the living contradiction of a rational man’s using his reason in order to be
irrational. To put it another way: rejection of an ideal recognized as ultimate would be a refusal to accept the inevitable finality of human activity. The recognition of the *sumnum bonum* is a question of comparing experience with the transcendental condition of such an ultimate, namely, that it is such that it can be pursued in any and every circumstance. Thus, when the pursuit of an ideal is rendered impossible, it cannot be ultimate (see 1.599ff.). According to Peirce, then, habits of feeling and the adoption of ideals are subject to criticism and control, and indeed must be if they are to be called reasonable. Thus, *esthetics* is truly a normative science if it be thought of as the science of the deliberate formation of such habits of feeling.

**Notes**

1. Yet in "Minute Logic," written shortly before the 1903 Harvard lectures which I have been quoting (that is, about 1902), Peirce writes: "The science which Berkeley, Kant, and others have developed, and which goes by the name of the theory of cognition, is an experimental, or positive science. It learns and teaches that certain things exist. It even makes special observations. But the experimental element in logic is all but nil. No doubt it is an observational science, in some sense; every science is that. Even pure mathematics observes its diagrams. But logic contents itself almost entirely, like mathematics, with considering what would be the case in hypothetical states of things. Unlike the special sciences, it is not obliged to resort to experience for the support of the laws it discovers and enunciates, for the reason that *those laws are merely conditional, not categorical*. The normative character of the science consists, precisely, in that condition attached to its laws" (2.65; emphasis added).

It certainly seems that Peirce is inconsistent here. Perhaps he merely changed his mind. In any case I have been hard put to reconcile these passages. In conversations with colleagues, however, a number of things have been suggested to diminish the conflict. (1) In the passage quoted in this note Peirce is interested in distinguishing logic from any *Erkenntnislehre* which makes psychology its basis. Psychology might tell us how we must think—what are the uncontrollable processes involved—but logic as a normative science must deal with reasoning precisely from the point where it can be controlled. Logic, then, is not a positive science in the same way as psychology is, and in this respect it is closer to mathematics. (See 5.126 for Peirce's attempt to distinguish normative science from...
mathematics on three scores, the first of which is precisely that the de-
ductions of normative science are intended to conform to positive truth
of fact, while mathematics deals only with hypotheses.) (2) When Peirce
says that the conditional character of the laws of logic is precisely what
makes logic normative, he means to stress that logic lays down rules for
right thinking, and rules, because they refer to ends to be achieved, are
more appropriately expressed in conditional, not categorical, proposi-
tions. He certainly has in mind formal rules of thinking which would be
valid in any universe of rational creatures, but does not necessarily re-
strict normative logic to formal considerations. Thus, he admits that logic
does need at least that experience necessary to motivate its research, and
in another place tells us that all true laws, true generals, formal as well
as material, are characterized by conditional necessity only. While logic
is like mathematics, it is still distinguished from it in that it also must
take into consideration the processes of thinking and the nature of the
object of thought as they actually are, not just as they might be. (3) Peirce
makes the laws of logic the laws of being. Normative logic looked at in
this way might conceivably be thought of as making categorical statements
of positive fact about reality, and still hold that the norms, rules, or laws
which it enunciates are to be put in the form of conditional, not categori-
cal, propositions. Considered precisely as norms or laws for right think-
ing, they ought to take the form: “If you want X, do Y.” Considered as
laws of being, general facts about reality, they might be expressed in
categorical form, perhaps something like this: “It is a general fact or law
of nature that if you want X, do Y.” These suggestions are offered for
what they are worth. At least we are working on the principle that before
a man’s thinking is pronounced inconsistent every effort to save it ought
to be made. Cf. R. S. Robin, “Peirce’s Doctrine of the Normative Sci-
ence,” Studies in the Philosophy of Charles Sanders Peirce, Second Se-
ries, ed. E. C. Moore and R. S. Robin (Amherst: University of Massachu-
setts Press, 1965), pp. 275ff., for a perceptive discussion of
this difficulty.

2. For example, Schroder, Sigwart, Wundt, Schuppe, Erdmann,
Bergmann, Clogau, Husserl. Peirce opposes to this group the “English
logicians” Boole, De Morgan, J. S. Mill, Venn (see “Why Study Logic”);
and yet he is very critical of J. S. Mill for “psychologizing” (see 2.39–51).

3. Cf. 2.47–48 and Richard J. Bernstein’s “Peirce’s Theory of Percep-
tion” in Studies in the Philosophy of Charles Sanders Peirce, Second
Series, pp. 165–89 for a thorough analysis of the role of “compulsion” in
authenticating perceptual judgments. Certitude is not a sign of or a guar-
antee of truth.

4. Peirce ultimately substituted the term “practics” for “ethics” and
warned the reader repeatedly that his use of the terms "logic" and "esthetics" was peculiar. Evidently he simply could not think of better designations.

5. Peirce later defines normative science as the science of ends. Here he says logic is a science of means. The inconsistency is only apparent, because means are themselves subordinate or partial ends. Thus, reasoning has its own end, attaining truth, yet relative to action it is a means.

6. The summmum bonum ought not to be thought of as simply another member in a series of goods, not even the least member. Peirce is not always as clear as might be desired in the way he uses the term, but as we shall see as we continue our analysis, he did not fall into that mistake. Cf. H. W. Schneider, "Fourthness," Studies in the Philosophy of Charles Sanders Peirce, ed. R. P. Wiener and F. H. Young (Cambridge: Harvard University Press, 1952), p. 211.

7. I suspect that what Pierce is trying to express is something akin to the Scholastic distinction between transcendental and predicamental categories. Traditionally the Scholastics looked upon Oneness, Truth, and Goodness (some included Beauty) as the absolutely universal categories which attached to being as being independent of and thus cutting across all genera and species. These transcendental categories are not really distinct from being itself, but are merely three aspects of it, three ways in which man can consider it. When these transcendentals are predicted of this or that being they are so by analogy. Because these categories are transcendental, they can be discovered only by phenomenological analysis. The Scholastics distinguished from these ultimate and absolutely universal categories, particular categories related to the former. Thus, for example, they distinguished logical and ontological truth. Again, they distinguished moral or ethical goodness from ontological goodness. The normative sciences of logic and ethics, in terms of the transcendental categories of truth and goodness, set up norms for deciding the logical truth or falsity of propositions and arguments, and for deciding the moral goodness or badness of such and such deliberate conduct. Perhaps Peirce was unconsciously sliding from one type of category to the other, and thus at one time saw ethics as prenormative and at another as normative.

8. It must not be imagined that esthetics and ethics do not involve logic. They do because they are theoretical sciences. Therefore, it would be incorrect to think that Peirce held for a purely emotive conception of ethics, or for a purely subjective conception of esthetics (not to be confused with mere taste). All three normative sciences involve deliberate approval, and hence are based on reasoning. The distinction to be kept in mind is that between logica utens and logica docens which Peirce himself never tires of making. Logic as a normative science is docens—a
thinking about thinking wherever it may occur. That Peirce was aware of
the possibility of confusion on this point is evidenced by his constant
rebuttal of any type of hedonism as illogical and hence unreasonable.

9. For Peirce's survey of opinions, thirteen in all, see 2.19–78.
10. The difficulty he felt was something like this: the three universal
categories are irreducible; but logic clearly deals with thirds, ethics with
seconds, and esthetics with firsts. How, then, can one consistently seek
the source of a third in a second and the source of a second in a first?

11. For Peirce, consciousness is merely a collection of qualities of feel-
ing, or, better, qualities of feeling are the contents of consciousness. "My
taste must doubtless be excessively crude, because I have no esthetic
education; but as I am at present advised the esthetic Quality appears to
me to be the total unanalyzable impression of a reasonableness that has
expressed itself in a creation. It is a pure Feeling but a feeling that is the
impress of a Reasonableness that Creates. It is the Firstness that truly
belongs to a Thirdness in its achievement of Secondness" (from the first
draft of Lecture V of the Lectures on Pragmatism, Peirce Papers,
Houghton Library, Harvard University, #310).

12. Perhaps the reader sees in what direction this line of thinking will
take Peirce: the admirable in itself is the growth of reasonableness in the
world. Peirce develops this theme at length in a paper called "Ideals of
Conduct," part of his Lowell Lectures of 1903 (1.591–615).

13. An ultimate aim is what would be pursued under all possible cir-
cumstances (5.134) and hence would not be disturbed by one's subse-
quent experiences (5.136).

14. One might refuse to recognize or to accept the ultimate good, but
then that would be to act unreasonably and so to act without true liberty.
See 1.602: "My account of the facts, you will observe, leaves a man at full
liberty, no matter if we grant all that the necessitarians ask. That is, the
man can, or if you please is compelled, to make his life more reasonable.
What other distinct idea than that, I should be glad to know, can be
attached to the word liberty?" See also 5.339, note.

15. I think that such a proof would have to consider at least the follow-
ing: (1) Peirce's distinction between motive and ideal, (2) his realization
that ideals can influence man's actions in different ways and in different
degrees of awareness, and (3) the role of habit in deliberate conduct.