

THE NORMATIVE SCIENCES, THE SIGN UNIVERSE, SELF-CONTROL AND RATIONALITY—ACCORDING TO PEIRCE

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ABSTRACT: Although Charles S. Peirce, strictly speaking, never formulated a ‘full-blown’ normative theory—a single over-all architectonic system—we believe that there lies within his work a valuable sketch of the ideal for feeling, action, and thought, and how this ideal should be followed, and in connection to this, Peirce offered a model for rational behaviour, including self-control. In the following essay we will try, modestly, to draw a rough outline of this sketch. Firstly, we will focus on the three normative sciences, their relationship and their task of finding out how feeling, action and thought ought to be controlled. Then, we will take a look at the sign-universe. The very universe *is* a sign-universe and within this evolutionary universe feeling, matter and thought incessantly melt together into ‘concrete reasonableness’; according to Peirce, rendering the world more reasonable. This is the *Summum Bonum* that man can and indeed should pursue. Hence it makes absolutely no sense to speak of the three normative sciences out of this metaphysical or cosmological context. Finally, we will try to see in what way rationality can be said to fall within the spheres of self-control, bearing in mind that self-control is directly related to conditional purpose.

Keywords: Charles S. Peirce; Metaphysics; *Summum Bonum*; Normative Sciences

It is somehow more than a mere figure of speech to say that nature fecundates the mind of man with ideas which, when these ideas grow up, will resemble their father, Nature (Charles S. Peirce, 1898).

INTRODUCTION

Around 1890, the American polyhistor C. S. Peirce (1839-1914) began to work on the manuscript ‘A Guess at the Riddle’. The riddle, to which the title refers, is the one described by Peirce’s contemporary, a fellow American, the philosopher, lecturer, essayist and poet R. W. Emerson (1803-1882) in his famous and celebrated poem ‘The Sphinx’. It is the very riddle of the universe: or the intricate relation between mind and matter; but also the purpose of man’s life, how he ought to live (cf. Sheriff, 1994, p. xvii). Peirce never finished his work ‘A Guess at the Riddle’. However, several places in his specula-

tive philosophy bear witness to his optimism about man's ability to find an ideal worth pursuing—the *Summum Bonum*. According to Peirce, man is able to take on an (aesthetic) ideal, which he finds in the sign-universe—the fact that there is a growth in concrete reasonableness, which is the course of evolution itself. Man experiences and knows the universe because he himself is a result of its creative processes; he has evolved to a point where he can live rationally and with it exercise self-control;¹ or in other words, man can cultivate his habits of feeling, action and thinking in accordance with the ideal. Understanding these efforts of cultivation fall within Peirce's three normative sciences: aesthetics, ethics, and logic. But Peirce developed very little in the way of a systematic aesthetics or ethics; yet he did extensive work in logic. As Peirce himself said in one of his 'Lectures on Pragmatism' (1903): 'My own opinions of ethics and aesthetics are far less matured than my logical opinions.'² Although Peirce, strictly speaking, never formulated a 'full-blown' normative theory—a single over-all architectonic system – we believe that there lies within his work a valuable sketch of the ideal for man and how it should be followed, and in connection to this, a model for rational behaviour, including self-control³. In the following we will try, modestly, to draw a rough outline of this sketch. The article progresses in the following way: Firstly, we will focus on the three normative sciences, their order of independence and dependence and their task of finding out how feeling, action and thought ought to be controlled. Then, we will take a look at the sign-universe. The very universe *is* a sign-universe and within this evolutionary universe feeling, matter and thought incessantly melt together into 'concrete reasonableness'; according to Peirce, rendering the world more reasonable is exactly the *Summum Bonum*, which man can and indeed should pursue; hence it makes absolutely no sense to speak of the three normative sciences outside this metaphysical or cosmological context. Finally, we will try to see in what way rationality can be said to fall within the spheres of self-control, bearing in mind that self-control is directly related to conditional purpose.

THE THREE NORMATIVE SCIENCES

According to Peirce the three normative sciences aesthetics, ethics and logic study 'what ought to be', not 'what is'.⁴ 'What ought to be' involves ideals, ends and purposes,⁵ and is of course related to concepts such as deliberate action and self-control. Thus taken together the three normative sciences can be understood as an attempt to formulate a unifying model regarding self-control with close affinity to rationality.⁶ It took a while though before Peirce came to the conclusion that there are three normative sciences and

1. V.G. Potter, *Charles S Peirce on Norms and Ideals*, Fordham University Press, New York, 1997, p. 202

2. C. S. Peirce, *Collected Papers* (abbr. CP followed by volume and paragraph no.) vol. 1-6 (C. Hartshorne & P. Weiss, eds.), Harvard University Press, Cambridge, (CP: 5.129)

3. Cf. C. Hookway, 'Sentiment and Self-Control', in J. Brunning & P. Forster (eds.), *The Rule of Reasoning*, Toronto University Press, Toronto, 1997, p. 225.

4. Cf. CP: 1.281

5. V.G. Potter, *Charles S Peirce on Norms and Ideals*, Fordham University Press, New York, 1997, p. 25

6. Cf. C. Hookway, 'Sentiment and Self-Control', in J. Brunning & P. Forster (eds.), *The Rule of Reasoning*, Toronto University Press, Toronto, 1997, p. 202

that these enter into a certain order of dependence. However, he was never in doubt that logic—defined as the theory regarding the intended form of reasoning⁷—is a normative science while ethics and aesthetics were not deemed worthy of being labelled normative sciences; Peirce saw ethics as being an art or a practical science which, like taste, could not be discussed. But in his fourth ‘Lecture on Pragmatism’ (1903), the mature Peirce had changed his mind:

But when, beginning in 1883, I came to read the works of the great moralists, whose great fertility of thought I found in wonderful contrast to the sterility of the logicians—I was forced to recognize the dependence of Logic upon Ethics; and then took refuge in the idea that there was no science of esthetics, that, because *de gustibus non est disputandum*, therefore there is no esthetic truth and falsity or generally valid goodness and badness. But I did not remain of this opinion long. I soon came to see that this whole objection rests upon a fundamental misconception. To say that morality, in the last resort, comes to an esthetic judgment is not hedonism.⁸

In this way, ethics became endowed with the predicate normative science, and it was—according to Peirce—an unavoidable propaedeutic to logic. But this was not enough. Aesthetics completed the normative sciences, and was no less than the science on which conclusions both logic and ethics must build.⁹ In his Harvard lecture ‘On Phenomenology’ (1903) Peirce put forth the following definition of the three normative sciences: ...the research into the theory of the distinction between what is good and what is bad; in the realm of cognition, in the realm of action, and in the realm of feeling.¹⁰ The normative sciences rest upon the premise that feeling, action, and reasoning—to a certain degree—are subject to self-control. Therefore, the task of the normative sciences consists in finding out how these ought to be controlled. In the ‘Lowell Lectures’ (1903), where Peirce discussed what right reasoning and the right action consist in, he also noted the following regarding the order of dependence between the normative sciences:

What does right reasoning consist in? It consists in such reasoning as shall be conducive to our ultimate aim. What, then, is our ultimate aim? Perhaps it is not necessary that the logician should answer this question. Perhaps it might be possible to deduce the correct rules of reasoning from the mere assumption that we have some ultimate aim. But I cannot see how this could be done. If we had, for example, no other aim than the pleasure of the moment, we should fall back into the same absence of any logic that the fallacious argument would lead to. We should have no ideal of reasoning, and consequently no norm. It seems to me that the logician ought to recognize what our ultimate aim is. It would seem to be the business of the moralist to find this out, and that the logician has to accept the teaching of ethics in this regard. But the moralist, as far as I can make it out,

7. C. S. Peirce, *The Essential Peirce*, vol. 1-2 (abbr. EP I or EP II) (N. Houser & C.J. Kloesel, eds), Indiana University Press, Bloomington 1992-1998, EP II p. 376.

8. CP: 5.111

9. Cf. J.J. Stuhr, ‘Rendering the World More Reasonable’, in H. Parret (ed.), *Peirce and Value Theory*, John Benjamins, Philadelphia, 1993, p. 5-6.

10. EP II: 147

merely tells us that we have a power of self-control, that no narrow or selfish aim can ever prove satisfactory, that the only satisfactory aim is the broadest, highest, and most general possible aim; and for any more definite information, as I conceive the matter, he has to refer us to the esthetician, whose business it is to say what is the state of things which is most admirable in itself regardless of any ulterior reason.¹¹

Thus logic can be understood as the study of correct reasoning, and correct reasoning consists of reasoning which follows an ultimate goal. According to Peirce reasoning concerns the part of the inferential process that can be made the object of conscious control and thereby of criticism and correction. In 'Minute Logic' (1901-02), Peirce wrote:

For reasoning is essentially a voluntary act, over which we exercise control. If it were not so, logic would be of no use at all. For logic is, in the main, criticism of reasoning as good or bad. Now it is idle so to criticize an operation which is beyond all control, correction, or improvement.¹²

If logic should be able to articulate its normative function, it has to formulate a criteria for how one ought to reason; this is a question about validity: Is one's reasoning good or is it bad? However, this criteria rests upon conclusions regarding the objective ideal for reasoning itself. These conclusions can only be localized within the normative science ethics and aesthetics.¹³ Regarding the object of ethics, Peirce stressed again in 'Minute Logic' (1901-1902):

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. 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? To what is the force of my will to be directed?¹⁴

Thus, normative ethics is not the science about what is right and what is wrong; rather it investigates what one ought to be ready to take on as an ideal for one's actions. In connection with this, logic rests upon the normative ethics since:

logic is a study of the means of attaining the end of thought. It cannot solve that problem until it clearly knows what that end is. Life can have but one end. It is Ethics which defines that end. It is, therefore, impossible to be thoroughly and rationally logical except upon an ethical basis.¹⁵

11. CP: 1.611

12. CP: 2.144

13. T.V. Curley, the relation of the normative sciences to Peirce's theory of inquiry. *Transactions of the Charles S. Peirce Society*, 5 (2), 1969, p. 93.

14. CP: 2.198

15. CP: 2.198

But what is the ultimate ideal of action? What is the ideal which reasonably should be intentionally assumed? According to Peirce, as he stressed in 'Lectures in Pragmatism' (1903), this can only 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.¹⁶

In this way ethics depends on normative aesthetics, since we, in Peirce's words from 'Lectures on Pragmatism', 'cannot get any clue to the secrets of Ethics... until we first have made up our formula for what it is that we are prepared to admire'.¹⁷ Aesthetics, which is the science about what is admirably in it self, identifies the ideal, which the ethical action ought to follow; the means to reach the goal belongs to logic, which deals with self-controlled reasoning. But if the ethical action and the logical goodness have to be intended, the ideal must be a habit of feeling, which is developed under the influence of self-criticism and hetero-criticism. That is, a habit of feeling is general, it can be identified and thus controlled and criticized and thereby corrected; this is the most important task of aesthetics, and in this way it articulates its normative function.¹⁸

THE UNIVERSE OF SIGNS

But it absolutely makes no sense to speak about the three normative sciences unless we with Peirce understand that man is a being which is informed by the telos of reasonableness; man has a unique place in the evolutionary sign-universe, a sign-universe in which an inherent ideal can be localized, a *Summum Bonum*, which man can and indeed should pursue. The life of man is everywhere perfused with semeiosis; without signs man can neither perceive, feel, act, or think¹⁹. Concerning the latter, Peirce argued this case in his article 'Questions Concerning Certain Faculties Claimed for Man' (1868):

If we seek the light of external facts, the only cases of thought which we can find are of thought in signs. Plainly, no other thought can be evidenced by external facts. But we have seen that only by external facts can thought be known at all. The only thought, then, which can possibly be cognized is thought in signs. But thought which cannot be cognized does not exist. All thought, therefore, must necessarily be in signs.²⁰

In other words, reasoning is only evidenced by external facts; the object of reasoning is external facts. External facts are mediated by signs, thus all reasoning is in signs. What argument could falsify this? In his lucid work 'Vitenskap og 'Menneskebilde', the Norwegian philosopher and Peirce-scholar P. Skagestad writes:

16. CP: 5.130

17. CP: 5.36

18. V.G. Potter, *Charles S Peirce on Norms and Ideals*, Fordham University Press, New York, 1997, p.50-51

19. cf. CP 7.591

20. CP: 5.251

To be able to refute the thesis an opponent must be able to refer to at least one thought, which does not have linguistic thought but he would not be able to refer to any thought without putting it into words. All thoughts, which can be identified, confirm the thesis, and we are unable to identify any thoughts which could refute it.²¹

Signs can, rightfully, turn to man and say, as Peirce wrote in the article ‘Some Consequences of Four Incapacities’ (1868): ‘You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought’.²² Indeed, man does not only use the sign, the sign is identical to man in the same way as homo and man are identical. As Peirce argued in his article ‘Consequences’:

It is that the ... sign which man uses is the man himself. For, as the fact that every thought is a sign, taken in conjunction with the fact that life is a train of thought, proves that man is a sign; so, that every thought is an external sign, proves that man is an external sign. That is to say, the man and the external sign are identical, in the same sense in which the words homo and man are identical. Thus my language is the sum total of myself; for the man is the thought.²³

Thus, the identity of man consists in the consistency of his reasoning and actions expressed as a semeiotic relation: ‘consistency is the intellectual character of a thing; that is, is its expressing something’.²⁴ However, semeiosis is not only limited to the world of man, also the entire organic world is filled with thought, as Peirce wrote in ‘Prolegomena to an Apology for Pragmaticism’ (1906):

Thought is not necessarily connected with a brain. It appears in the work of bees, of crystals, and throughout the purely physical world; and one can no more deny that it is really there, than that the colors, the shapes, etc., of objects are really there. Consistently adhere to that unwarrantable denial, and you will be driven to some form of idealistic nominalism akin to Fichte’s. Not only is thought in the organic world, but it develops there. But as there cannot be a General without Instances embodying it, so there cannot be thought without Signs. We must here give ‘Sign’ a very wide sense, no doubt, but not too wide a sense to come within our definition.²⁵

Indeed, the entire universe seems to be perfused with signs and sememiosis. In ‘Issues of Pragmaticism’ (1905), Peirce stressed how:

the entire universe—not merely the universe of existents, but all that wider universe, embracing the universe of existents as a part, the universe which we are all accustomed to refer to as ‘the truth’—that all this universe is perfused with signs, if it is not composed exclusively of signs.²⁶

21. P. Skagestad, *Vitenskap och Menneskebilde: Peirce og amerikansk pragmatisme*. Universitetsforlaget, Oslo, Tankekorsserien, 1978, p. 48-49, our translation.

22. CP: 5.313

23. CP: 5.314

24. CP: 5.315

25. CP: 4.551

26. CP: 5.448, note 1

Hence, Peirce took on a pan-semeiotic view of the universe; to him a sign is not a thing amongst others. That is, the universe does not consist of two exclusive things, signs and non-signs; there cannot be anything which in principle cannot be a sign.²⁷ If we take a closer look at the universe, we will see that it in fact is one big sign, a tremendous argument and thereby intelligible, since an argument is, as Peirce wrote in the manuscript 'Nomenclature and Divisions of Triadic relations, as far as they are determined' (c. 1903): a sign of Law,²⁸ that is 'the law that the passage from all such premises to such conclusions tends to the truth'.²⁹ In the manuscript 'Lectures on Pragmatism', Lecture IV (1903), Peirce wrote:

The Universe is a vast representamen ... an argument. ... [The] total effect is beyond our ken; but we can appreciate in some measure the resultant Quality of parts of the whole—which Qualities result from the combinations of elementary Qualities that belong to the premises.³⁰

The intelligibility of the universe is increased concurrently with the process of evolution, which is a growth in the concrete reasonableness, as Peirce called it; that is the semeiotic order in which the universe grows or Thirdness, the tendency to take habits in all its variations (cf. Esposito, 1980, p. 167). Thus, as Peirce described in the article 'Pragmatic and Pragmatism' (1903), his cosmology rests upon the metaphysical condition:

The coalescence, the becoming continuous, the becoming governed by laws, the becoming instinct with general ideas, are but phases of one and the same process of the growth of reasonableness.³¹

SUMMUM BONUM AND THE ABILITY OF MAN TO EXERCISE SELF-CONTROL

Peirce coupled the growth in the concrete reasonableness with Summum Bonum, the highest good, which he stressed in the Monist article 'What Pragmatism is' (1905):

The pragmaticist 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 which were just now said to be destined, which is what we strive to express in calling them reasonable. In its higher stages, evolution takes place more and more largely through self-control, and this gives the pragmaticist a sort of justification for making the rational purport to be general.³²

Evolution is not a value neutral process; rather it has close affinity to an aesthetic-moral ideal; man ought to strive for having his semeioses develop in accordance with the de-

27. cf. M.H. Fisch, *Peirce, Semeiotic, and Pragmatism: Essays by Max Fisch*, K.L. Ketner & C.J. Kloesel (eds.), Indiana University Press, Bloomington, 1986, p. 330.

28. CP: 2.310

29. CP: 2.263

30. CP: 5.119

31. CP: 5.4

32. CP: 5.433

velopment of the universe. Only if man tries to contribute to the reasonableness of the universe, he can find his true place in it. In 'Lowell Lectures' (1903), Peirce stressed:

The creation of the universe, which did not take place during a certain busy week, in the year 4004 B.C., but is going on today and never will be done, is this very development of Reason. ... The one thing whose admirableness is not due to an ulterior reason is Reason itself comprehended in all its fullness, so far as we can comprehend it. Under this conception, the ideal of conduct will be to execute our little function in the operation of the creation by giving a hand toward rendering the world more reasonable whenever, as the slang is, it is 'up to us' to do so.³³

In his excellent book *Charles S. Peirce: On Norms and Ideals*, the Peirce scholar V. G. Potter wrote about the Peircean conditions for man's participation in rendering the universe more reasonable. Here the ability to self-control is of utmost importance:

Man ... holds a privileged and unique place in this evolving world. Although he himself is a product of that process of development and still is in great measure subject to it, he has reached a stage where he is capable of a very high degree of self-control. ... Man has evolved to a point where he now can cooperate in evolution itself, since he can deliberately control his own actions and influence the society of which he is member.³⁴

Man displays rational behaviour so far as he is able to control his feelings, actions and thoughts in a certain way in concordance with the *Summun Bonum*.³⁵ In a non-published manuscript, Peirce stressed how the most important task consists in finding out how:

Feeling, Conduct, and Thought, ought to be controlled supposing them to be in a measure, and only in a measure, to self-control, exercised by means of self-criticism, and the purposive formation of habit, as common sense tells us they are in a measure controllable.³⁶

Man is capable of criticising his own feelings, actions and thoughts; he is capable of comparing these to a standard, he is able to investigate whether these match a certain intension or not, he can investigate whether these cause a sense of satisfaction or dissatisfaction; he can learn from experience; he can make his standard object for revision or maybe even abandon it, and as a result, he can develop a new habit formation.³⁷ Thus, man can conduct self-control within three main areas: conduct of 'aesthetical' self-control, which relates to thought's control over feeling; 'ethical' self-control, which relates to thought's control over action; and, 'logical' self-control, which relates to reasoning's con-

33. CP: 1.615

34. V.G. Potter, *Charles S Peirce on Norms and Ideals*, Fordham University Press, New York, 1997, p. 202.

35. Cf. C. Hookway, 'Sentiment and Self-Control'. In J. Brunning & P. Forster (eds.), *The Rule of Reasoning*, Toronto University Press, Toronto, 1997, p. 202.

36. Peirce unpublished manuscript 655; quoted in J.J. Stuhr, 'Rendering the World more reasonable', in: H. Parret (Ed.), *Peirce and Value Theory*, John Benjamins, Philadelphia, 1993, p. 12.

37. Cf. C. Misak, *C. S. Peirce on vital matters*. The Cambridge companion to Peirce, Cambridge University Press, Cambridge, 2004, p. 171.

trol over thought.³⁸ These three forms follow the same intricate development as Peirce described in the manuscript 'Pragmatism' (c. 1903) concerning the phases of self-control:

Of course there are inhibitions and coördinations that entirely escape consciousness. There are, in the next place, modes of self-control which seem 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 may 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 esthetic ideal of what is fine.³⁹

Instead of investigating the rational consciousness as a kind of kernel, Peirce tried to understand self-control as a series of phases. Of course Peirce was well aware—as the fallibilist he was—that he hardly had found all phases, still there seems to appear an interesting continuum ranging from instinctive self-control to self-control, where the most general law is controlled in accordance to an aesthetic ideal. The continuum corresponds with the grade of consciousness. According to Peirce, consciousness makes up a system of three—and only three, as his categorial logic prescribes—classes of general elements, named feeling, alter-sense and medi-sense, respectively. In an unnamed manuscript (c. 1900) Peirce wrote:

There are no other forms of consciousness except ... Feeling, Altersense, and Medisense. They form a sort of system. Feeling is the momentarily present contents of consciousness taken in its pristine simplicity, apart from anything else. It is consciousness in its first state, and might be called primisense. Altersense is the consciousness of a directly present other or second, withstanding us. Medisense is the consciousness of a thirdness, or medium between primisense and altersense leading from the former to the latter. It is the consciousness of a process of bringing to mind.⁴⁰

In what way this consciousness trichotomy more precisely can be correlated with the continuum, is not easy to decide. Thus, let us be content with giving a couple of facts. The highest grades of self-control are connected with medi-sense and thereby with the form of self-consciousness where thoughts, actions, feelings, intentions, decisions and the single parts of the body become whole; the past is connected to the future, decisions are connected and form a plan; plans are connected and form a life; all this happens with reference to a certain unit, a sign-relation, the self; the self, who thinks these thoughts, who carries out actions, feels this or that and have these intentions, and so

38. T.L. Short, 'Hypostatic abstraction in self-consciousness', in J. Brunning & P. Forster (eds.), *The Rule of Reasoning*, Toronto University Press, Toronto, 1997, p. 301.

39. CP: 5:533

40. CP: 7:551

forth.⁴¹ The lowest grades of self-control is connected to feeling and instinct; thus the ability to self-control and rational reasoning is not limited by these; feeling and instinct is rather a fundament for the higher grades of self-control, as Peirce said in the lecture 'Detached Ideas on Vitally Important Topics' (1898):

It is the instincts, the sentiments, that make the substance of the soul. Cognition is only its surface, its locus of contact with what is external to it.⁴²

Man is endowed with a form of emotional rationality; he has the ability to cognize from his disposition to feel; what is valuable seems to be immediately felt and cognized.⁴³ The possibility for man to develop his full rational nature is not only related to his ability to cultivate his habits of thought and action but also to his habits of feeling, or else he cannot pursue *Summum Bonum*.

A FEW CONCLUDING THOUGHTS

From a Peircean perspective man lives in a universe perfused with semeiosis. It is not incomprehensible that man can understand this universe; he himself has emerged from its creative processes and there is a structural affinity between his reasoning and the reasoning that takes place within the universe. Thus, by aid of his ability for self-control, man can encircle the ultimately admirable, which his feelings, actions, and reasoning then ought to follow. In other words, if the ultimately admirable can be encircled, it is also possible to encircle what is good regarding the habits of feeling, action, and reasoning; good logic relates to reasoning, which is self-controlled and which contributes to the ultimately admirably, in the same way as good ethics relates to action, which is self-controlled and which contributes to the ultimately admirable. Finally a good aesthetic is that which creates a habit of feeling, which causes good actions and good thoughts⁴⁴ (cf. Sheriff, 1994, p. 66). The three normative sciences make up a framework for self-control and rationality; these sciences are important when it comes to understanding man's strivings to pursue the *Summum Bonum*. Man should contribute to rendering the universe more reasonable, this much and nothing less.

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41. Cf. T.L. Short, 'Hypostatic abstraction in self-consciousness', in J. Brunning & P. Forster (eds.), *The Rule of Reason*, Toronto University Press, Toronto, 1997, 302

42. CP 1.628

43. Cf. M. Harris, 'Introduction', in V.G. Potter, *Charles S. Peirce on Norms and Ideals*, Fordham University Press, New York, 1997, p. xxii.

44. Cf. J. K. Sheriff, *Charles S. Peirce's Guess at the Riddle*, Indiana University Press, Bloomington, 1994, p. 66.

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