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A clue to the genesis of the normative sciences: chronology, context and relevance of Peirce's classifications of ends

Uma pista para a gênese das ciências normativas: cronologia, contexto e relevância das classificações dos fins de Peirce

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Abstract: Which considerations led Peirce to introduce the normative sciences of Ethics and Esthetics into the architectonic of philosophical inquiries that he first outlined and partially realized in 1902's *Minute Logic*? In the present paper, we address that question by focusing on the taxonomies of ultimate ends of action that Peirce produced in 1900 and 1901. Whereas in 1898 Peirce had excluded Ethics from the domain of philosophical inquiry, the *Minute Logic* reflects a thoroughly revised conception of Ethics according to which there are three levels of ethical inquiry. The most fundamental of these levels is the formerly excluded "third branch [of philosophy], relating to ends" (R 435:10, 1898). As Peirce repeatedly referenced his classification of ultimate ends of action presented in his review of Karl Pearson's *Grammar of Science* in December 1900, these taxonomies are not mere progenitors of "pure ethics", but rather represent his first fundamental achievement in the realm of pre-logical normative science.

Keywords: Classification. Ends. Entelechial formality. Esthetics. Logic. Normative science. Peirce, Charles Sanders. Pure ethics. *Summum bonum*. Wilhelm. Wundt.

Resumo: *Quais considerações levaram Peirce a introduzir as ciências normativas de Ética e Estética para a arquitetônica de inquéritos filosóficos que ele delineou primeiramente, e realizou parcialmente em Minute Logic [Lógica Meticulosa] de 1902? No artigo em mão, nós endereçamos a primeira questão focando nas taxonomias dos fins últimos da ação produzidos por Peirce em 1900 e 1901. Enquanto em 1898 Peirce tinha excluído Ética do domínio de inquéritos filosóficos, Minute Logic refleti sobre uma revisão completa do conceito de Ética, que diz que há três níveis de inquéritos éticos. O nível mais fundamental dos três é o anteriormente excluído "terceiro ramo [da filosofia], relativo aos fins" (R 435:10, 1898). Como Peirce repetidamente referenciou sua classificação dos fins últimos da ação apresentado na sua crítica de Grammar of Science [A gramática da Ciência], do Karl Pearson, em dezembro de 1900, essas taxonomias não são meras progenitoras da "ética pura", mas sim representadoras da sua primeira conquista fundamental no domínio da ciência normativa pré-lógica.*

Palavras-chave: *Ciência normativa. Classificação. Estética. Ética pura. Fins. Formalidade entelética. Lógica. Peirce, Charles Sanders. Summum bonum. Wilhelm. Wundt.*



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1 Introduction

Which considerations led Peirce to introduce the normative sciences of Ethics (CP 1.575-584) and – soon afterwards – Esthetics (CP 2.119, 2.197-199) into that mature architectonic of philosophical inquiries (CP 1.281) he first outlined and partially realized in his *Minute Logic* between Fall 1901 and Spring 1902?

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One of the main difficulties in answering this question is the scarcity of manuscripts that could document the development of Peirce's thought between 1898 and 1901. All that we can say is that in the roughly fifty months between the *Cambridge Conferences* (February and March 1898) and the final phase of his work on the *Minute Logic* (April and early May 1902), he significantly changed his mind about ethical inquiry and the role it should play in his philosophy. In January 1898, Peirce denied that – besides Logic and Metaphysics, which respectively deal with *thought* and *being* – “there is a third branch [of philosophy], relating to *ends*” (R 435:10, 1898). He thus considered “Ethics” not as a pure but rather as an “applied science or art” (RLT:117, 1898), i.e., as a mere *téchne* of the good life. In May 1901, however, he began to ponder the idea of a triadic division of philosophy, comprised of “*Ethics*, Logic, and Metaphysics” (HP 2:887, 1901, my emphasis), arguing that “the connection between ethics and logic is such that [it] would unquestionably improve our system of logic” (HP 2:889, 1901). And since by that time Peirce was even ready to say that “[l]ogic [...] may be regarded as a branch of ethics” (HP 2:891, 1901, my emphasis), we are not surprised to notice that by July 1901, in the very first sketches of the *Minute Logic*, Ethics has become a fundamental theoretical discipline, the treatment of which is planned to immediately follow that of Mathematics and to precede that of “Speculative Grammar or Formal Critic” (R 1579:1, 1901). Soon afterward, in October 1901, Peirce published his first statement indicating the consolidation of his new conception of ethics in *The Nation*: “logic rests on ethics to a degree that few are aware of” (CP 8.158, 1901). Finally, by April 1902, he had reached his mature conception of logic as a “Normative Semeiotic” (CP 2.111, 1902) that depends on *two* pre-logical philosophical disciplines that act as its “indispensable propaedeutic” (CP 2.199, April 1902): “Esthetics”, which asks “what it would be that, independently of the effort, we should like to experience” (CP 2.199; see also CP 1.281; R 427:119a-120, February 23rd 1902, according to the stamped date on R 427:84), and “Ethics”, which “asks to what end all effort shall be directed” (CP 2.198, 1902). As is well known, this general conception and internal articulation of the three Normative Sciences was then confirmed in the “Carnegie Application” (R L 75, NEM 4:17-20, 36-37) in the summer of the same year, and then significantly refined in the Harvard Lectures (R 310-312; see especially EP 2:196-207) and the Lowell Lectures (R 447-453; see especially EP 2:242-257) of 1903, so as to eventually consolidate (R 693:126-136, 1904; R 1334:038-043, 1905) and act as the “midportion of cenoscopy” that constitutes “its most characteristic part” (EP 2:376, 1906) until Peirce's last essays were written (see EP 2:458-460, 1911).

Peirce's manuscripts thus warrant the diagnosis that he redefined the conceptual boundaries of such terms as “ethics”, “logic” and “philosophical science” during the aforementioned fifty months. However, these writings do not provide a substantial understanding of the etiology of his intellectual process. In other words, there seems to be no discourse in the Peircean corpus that foreshadows and prepares for the introduction of the Normative Sciences.¹ We observe *that* something changes, but we have no real insight as to *why*.

1 Of course, there are indications of what is to come, but nothing that deserves the title of a *discourse*. Thus Liszka (2021, p. 56-57) is right to refer us to Peirce's classifications of the sciences of the second half of the 1890s and to their in-depth analysis offered in Kent (1987, p. 92-114); notwithstanding the conceptual ruminations and dynamics these classifications reveal, however, Peirce's classification of ethics as belonging to a third branch of science named “Pragmatics”, which is principle-dependent upon “I. Mathematics” and “II. Empirics or Phenomenology” (R 1345:02-020, c. 1896), means that it is a non-coenosopic practical science. Accordingly, Pragmatics in general studies “the process by which the outer world is to be brought into accordance with our wishes” (R 1345:03, emphasis mine). The only classification of the 1890s in which Peirce, to our knowledge, really classified Ethics as a philosophical science is to be found in a manuscript intended as an introduction to the “Short Logic” (R 595; EP 2:11-26, 1895) entitled “Synopsis of Logic” (R 1345:034-040). In this text, Peirce divides philosophy “into: 1. The philosophy of thought: The *Philosophical Trivium*. 2. The philosophy of action: *Ethics*, etc. 3. The philosophy of being: *Metaphysics*” (R 1345:034). Not seeing the relation of the “Synopsis of Logic” (R 1345:034-040) to the project of the “Short Logic”, Kent (1987, p. 102), however, dates this classification to 1896. Another indication of the emergence of the Normative Sciences is noted by Liszka (2021, p. 203-204), who points out that Peirce – as soon as 1899 – declared reasonableness to be the *summum bonum* in a review of Paul Ford's *The Many-Sided Franklin in The Nation* (CN 2:220-221, 1899). Liszka is wrong, however, to say that “[i]t is around 1900-1901 that Peirce sees a more defined relation between logic and ethics” (LISZKA, 2021, p. 57). The normativity of logic and its dependence on self-control were already clear to Peirce in 1894, as the following passage from *How To Reason* demonstrates: “True self-control consists in paying attention at once to the ideas that are destined to ultimately prevail, after the matter in hand has been experienced under all its aspects. Reasoning, or inference, is something which can be good or bad, because it is within the domain of self-control (which [...] does not mean that a man can arbitrarily infer what he chooses, for the self-control in all cases operates to cut off arbitrary caprice). Now in order to understand right reasoning it is important to trace its analogy to right conduct

As we will argue in the present paper, a *clue* to understanding the normative dimension of the “sudden, almost spectacular, reformulation of Peirce’s philosophy that occurred in 1901-02” (MURPHEY, 1961, p. 359) emerges by following an Ariadne’s thread Peirce left in the labyrinths of his system under reconstruction. This thread is constituted by his persistent effort to sketch, elaborate and perfect a classification of ultimate ends of action between spring 1900 and fall 1901,² the period in which Peirce’s conception of Ethics went through its most significant changes, so as to prepare and motivate the programmatic insight of May 1901 that “the connection between ethics and logic is such that [it] would unquestionably improve our system of logic” (HP 2:889).³

The emergence of Peirce’s interest in the classification of ultimate ends in his review of Frank Thilly’s *Introduction to Ethics* in spring 1900 should not be seen as the outgrowth of a secondary line of inquiry but as a consequence of the economic constraint to tackle urgent systematic questions in the context of “bread and butter publications”.⁴ Six months later, he returned to the task of classifying “ethical classes of motives” (EP 2:59, 1900) in his review of Karl Pearson’s *Grammar of Science* (EP 2:57-66; R 1434, December 1900), in two manuscripts entitled “An Attempted Classification of Ends” (Rs 1133-1134, April 1901), in the Logic Notebook (R 339:195r, September 1901), and in the “Chapter on Ethics” (Rs 432-434, fall 1901) of the *Minute Logic*. In that last work, a taxonomy of ultimate goods (CP 1.579-584, 1901) breaks down after a few pages, but it is clearly intended to form the argumentative core of the chapter by determining a hierarchy of goods ultimately designed to be crowned by the *summum bonum* (CP 1.575, 1901).

In the first phase of his work on the *Minute Logic* (June 1901 to January 1902), Peirce referred to the science that carries out the classification of ultimate ends as “pure ethics” (CP 1.575-577, 1901; CP 4.243, January 1902). He took this term, which he had already been using since mid-1901 (CP

in general. In particular, it will be found that the only thoroughly sound reasoning is analogous to *Christian conduct*. Christian conduct arises from the reflection that I really do love my neighbor, and that the consideration of my neighbor must at length prevail over selfish considerations. In like manner, the good reasoner must recognize that he can never settle down to an opinion as satisfactory unless he is led to think that it not only represents answers to his own experience, but also to the great whole of experience of which his personal experience is but the merest fragment. As we proceed with our study other analogies between *Christian principles and sound logic will press upon our notice*” (R 409:025, 1894, my emphases). So it was not a lack of insight concerning the normative purposive character of cognitive thought – of which Peirce was well aware since 1869, as he confirmed in the “Carnegie Application” (NEM 4:19, 1902), – but rather his belief in the *exclusively* psychical nature of ends, and thus their lack of formality that prevented Peirce from introducing Ethics in his classifications before 1900.

2 See Liszka (2021, p. 199-209, 213-217) for the most recent and substantial account of these classifications; Liszka (2012, p. 58-65) is also insightful, but it lacks a precise understanding of the chronology of the classifications; for an older account see Goudge (1950, p. 296-301). Although Liszka (2021, p. 200) provides a chronology of the most important Peircean taxonomies of ultimate ends of action, it is noteworthy that these classifications are not discussed in his account of “The Development of Peirce’s Views about the Science of Ethics” (LISZKA, 2021, p. 55-67), where they are only cursorily hinted at (LISZKA, 2021, p. 59, p. 67), but are instead analyzes them in the last chapter and Appendix of his book. Accordingly, Liszka does not thematize the genetic role these classifications play in the development of the pre-logical Normative Sciences or their importance for reconstructing the development of Peirce’s conception of Ethics, especially in the context of Peirce’s reception of Wundt (*supra*, I.2.1). Finally, Liszka (2021, p. 59) holds that Peirce “never” successfully completed the “enormous undertaking” of producing a taxonomy of ultimate ends. But Peirce repeatedly acknowledged the results of the most complex taxonomy he produced and published in the context of his review of “Pearson’s Grammar of Science” (EP 2:59-60) in 1903 (CP 1.585-588), 1905 (CP 8.138n.) and 1911 (EP 2:460). So there are significant differences between Liszka’s views of the genetic role, discursive context, and systematic relevance of Peirce’s classifications of ends and the interpretation of those things offered in the present paper.

3 There are two important retrospective passages in letters to Josiah Royce and William James written in 1902 in which Peirce reflects on the considerations that led him to introduce the Normative Sciences in his architectonic of philosophical inquiries. To Royce, he wrote: “When I gave my lectures in Cambridge, I already had in embryo certain ideas to which I was then not ready to give expression, but upon which I have since been chiefly engaged, and in the development of which I have undoubtedly been much influenced by reflections upon your book. These relate to the *ethical side of logic*; and I now regard logic as dependent upon ethics in the most fundamental way. James’s ideas have also, no doubt, stimulated my perception of this matter. Nor is it merely ethics, but also the active element in reasoning which has come forward in my doctrine, as very essential” (L 385:040, January 19th, 1902, emphasis mine). And to James, he wrote: “Even when I gave my Cambridge lectures I had not really got to the bottom of it [the completely developed system of pragmatism]. 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” (CP 8.255, November 25th, 1902, emphasis mine). In the present paper we are not considering the development of Peirce’s mature conception of the normativity of logic – e.g., from 1894 (cf. R 409:025, 1894) to the Harvard Lectures (EP 2:188-189, 200-210, 1903) and Lowell Lectures (EP 2:245-251, 1903) – for which the development of the concept of *logica utens* is crucial. Instead we are focusing on the development of Peirce’s conception of Ethics. Note that to conceive of “the ethical side of logic” or to have a “proof that logic must be founded on ethics” presupposes a conception of ethics that is different from the one Peirce operated with prior to 1900, e.g., in the Cambridge Conferences (Rs 435-437, 1898).

4 In a letter Peirce sent to Samuel P. Langley, the superintendent of the Smithsonian Institute, in early May 1902, a few days after the funding obtained from Francis Lathorp for working on the *Minute Logic* had been used up, we hear him say: “I hate to break off this work. There will be waste in doing so. If I could get something to write for you which would tide me over, writing on some subject allied to those of my book, it would be a great thing for me” (quoted in Wiener, 1947, p. 211).

8.159; EP 2:85, 94; see also HP 2:887, 1901), to be synonymous with “philosophical ethics” (CP 1.577, 1901). He distinguished pure ethics from two other levels of ethical inquiry. First, he distinguished it from prescriptive “theorizing about duties” (R 1429:1, 1900), which is typical of a “doctrine of rights and duties, [which itself] is a mere superstructure upon ethics proper” (CP 1.577, 1901). Second, he distinguished it from all empirically more specialized modes of ethical inquiry that, under the umbrella of an “ethical anthropology”, aim at “*describing* what [men] hold to be moral, and [at] *explaining* how they come to do so” (CP 8.159, 1901, my emphases). Accordingly, the term “pure ethics” denotes that specific coenosopic science the study of which “consists in the gradual development of a distinct recognition of a satisfactory aim” (CP 4.342, 1902), i.e., in the determination of the *summum bonum* via the formation of a taxonomy of ultimate ends.

Now, *if* it is true (i) that the aforementioned classifications of ends and the manuscripts in which they emerge constitute the context in which Peirce began to architectonically stratify different levels of ethical inquiry, the most fundamental of which deals with the classification of ends (*supra*, Section I.2); and *if* it is true (ii) that the study of “the *summum bonum* which forms the subject of pure ethics” (CP 1.575, 1901) is, as the “Chapter on Ethics” (Rs 432-434) of the *Minute Logic* clearly demonstrates, essentially a classificatory science that aims to engender “the development of the ideal, which really *creates and resolves the problems of ethics*” (CP 4.243, 1902, my emphasis) by “pass[ing] in review every one of the general classes of objects which anybody could suppose to be an ultimate good” (CP 1.581, 1901); and *if*, moreover, it is true (iii) that the classification which Peirce unfolds in the “Chapter on Ethics” (CP 1.582-584, 1901) coincides with the classification offered in his Pearson review of December 1900 (EP 2:59-60, 1900/01); and *if*, finally, it is true, (iv) that these classifications are motivated by and ultimately respond to the very same theoretical need to which the Normative Sciences begin to respond in 1901/2 (*supra*, Section III), namely, to the need of Logic as “the study of the means of attaining the end of thought” (CP 2.198, 1902) to be grounded in an analysis of those “normative” (i.e., axiological and action-theoretical) conditions that must be fulfilled so as to conceive of the possibility of the unlimited progress and growth of scientific inquiry and semeiosis – *then* what follows from propositions (i) – (iv) is that Peirce’s spring 1900 project of classifying ends was the origin of the Normative Sciences of Ethics and Esthetics. Of Ethics *and* Esthetics, because initially these sciences were still together under the title of “pure ethics” and would only be differentiated in the final phase of work on the *Minute Logic* (CP 1.281, 2.197-199, spring 1902).⁵

According to this train of thought, the systematic relevance of Peirce’s taxonomies of ends consists in their being the first expression of a fundamental insight into the necessity of broadening pragmatism and its maxim. This broadening takes place by articulating the intimate relation of the maxim to the *summum bonum*, i.e., “by remembering that the only ultimate good which the practical facts to which [the maxim] directs attention can subserve is to further the development of concrete reasonableness” (CP 5.3, 1900/01). To “look to the upshot of our concepts in order rightly to apprehend them” (CP 5.3, 1900/01), therefore, will also “direct us towards something different from practical facts” (CP 5.2, 1900/01),

5 Accordingly, Peirce, in the earlier “Chapter on Ethics” (R 432-434, fall 1901), took “[p]ure Ethics, philosophical Ethics” to be “pre-normative” (CP 1.577) because it asks a question – “What is good?” (CP 1.577) – an answer to which is always already presupposed whenever normative considerations concerning the conditions of the fulfillment of any specific purpose are made. As the posing and answering of the question “What is good?” makes reasons and the phenomenon of normativity possible in the first place – nothing “can be either logically true or morally good without a purpose to be so” (CP 1.575) – Peirce in fall 1901 thought that Ethics is pre-normative. He thus did not yet distinguish between the task of Esthetics to discover the *norm-possibilitating*, emotivo-valuational ground of normative relations of conformity by determining “what it would be that, independently of the effort, we should *like to experience*”, and the genuinely praxeological task of discovering the *norm-actualizing*, energetico-volitional condition (*supra*, I.3) of such relations by determining “to what end *all effort* shall be directed” (CP 2.199, my emphases). As Esthetics thus determines the supreme good in *abstrahendo* from “the opposition of the ego and the non-ego” (CP 2.199), it inquires into the nature of the *summum bonum* and its mode of being *an sich*, whereas Ethics considers the *summum bonum* as an end of action in its dyadic relatedness to the conduct of agents, i.e., as that *norm* to which conduct ought to conform. Mayorga (2012, p. 108; 123) also sees that *pure ethics* partially corresponds to *esthetics*, without, however, noticing the transitory status of the term, which was dropped as soon as Ethics and Esthetics were differentiated. A task that is required for the reconstruction of the development of Peirce’s understanding of the internal articulation of the normative sciences is to differentiate the “division of labor among esthetics, ethics and logic”, as Liszka (2021, p. 65 *et passim*) aptly puts it.

namely, “to general ideas, as the true interpreters of our thought” (CP 5.2, 1900/01). This is necessary because “the whole ‘meaning’ of a conception” (CP 5.2)⁶ comprises the “practical consequences” (CP 5.2) that come in “[the shape] of *experiences to be expected*” as well as “in the shape of *conduct to be recommended*” (CP 5.2, my emphasis). This means that the proper apprehension of our intellectual concepts at a “still higher grade of clearness” (CP 5.3) must take account of the fact that the expectation of experiences will vary according to the conception one has of the ultimate end of its agency. *Since scientific inquiry is a particular mode of human activity, its scope, depth, and heuristic fruitfulness are pragmatically predetermined by – and thus the “practical consequences” (CP 5.2) of – the object of the general conception of the ultimate end of action operative in the activities of any historical community of researchers devoted to the advancement of truth.*⁷ Peirce’s final classification of ends (EP 2:59-60, R 1434:024-0, 1900/01) and his entries to the lemmata “pragmatic” and “pragmatism” in Baldwin’s *Dictionary of Philosophy and Psychology* are not only coeval⁸ but also thematically dependent on each other. Because of the identification of the *summum bonum* with the “process of the growth of reasonableness”, the classification of ends determines the way in which the *totality* of the practical consequences of our concepts ought to be considered.

Almost everybody will now agree that the ultimate good lies in the evolutionary process in some way. If so, it is not in individual reactions in their segregation, but in something general or continuous. Synechism is founded on the notion that 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. This is first shown to be true with mathematical exactitude in the field of logic, and is thence inferred to hold good metaphysically. It is not opposed to pragmatism in the manner in which [I have] applied it, but includes that procedure as a step. (CP 5.4, 1900/1; see also CP 2.111-118, 1902).

To further delineate, contextualize, and substantiate this train of thought, we shall proceed as follows. We begin by reconstructing the overarching developmental context (*Section I.1*), chronology (*I.2*), and discursive context (*I.3*) in which Peirce’s first classification of ends inserts itself as a fundamental critique of the positions of Wilhelm Wundt and Frank Thilly.

Next, we give a detailed account of Peirce’s first classification of ends in spring 1900 and sketch its philosophical relevance. This relevance lies in its devising the possibility of a class of ends endowed with two properties that eventually became foundational for Peirce’s conception of the *summum bonum*: (i) the *entelechia* formality⁹ of an end, which consists in its having “a power of developing *itself* in

6 Compare Kant’s conception of the highest good as “the whole object of a pure practical reason” (AA 5:109).

7 See R 339:168r, 1899; EP 2:61, 1900; CP 1.577-579, 1901; 1.235, 4.243, 1902.

8 On October 1st, 1900, J. Mark Baldwin, editor of the *Dictionary of Philosophy and Psychology*, sent a letter to Peirce asking him “to assist in the preparation of the Dictionary” by taking care of the definitions of logical terms “from J to Z” (L 34:02, 1900). The deadline to submit the definitions for the lemmata “pragmatic” and “pragmatism”, according to the original schedule set by Baldwin for the letters P through R, was “by Dec. 15 [1900]” (L 34:02, 1900). On November 10th Peirce sent a letter to William James, emphasizing the urgency of the matter and asking three questions: “Who originated the term *pragmatism*, I or you? Where did it first appear in print? What do you understand by it?” (L 224, 1900). James, on a postal card from Rome, on November 26th replied he had already given Peirce credit for being the inventor of the term (L 224). So, the entries to the lemmata *pragmatic* and *pragmatism*, which open volume 5 of the *Collected Papers* (CP 5.1-4), were written after October 1900. And on the basis of the ensuing correspondence between Peirce and Baldwin – “I have the words in N and O done, & most of those in P”, Peirce reports on March 23rd, 1901 (L 34:048, 1901) – we can be sure that they were not written later than March 1901.

9 Peirce started to correlate the Aristotelian terms *dúnamis*, *enérgeia* and *entelecheia* with his three categoriological modes of being around 1900 (CP 6.356; CP 1.21 ff., 1903; NEM 4:294 ff.) and, as is well known, conceived of the reality of thirdness in a fundamentally Scotistic tradition (BOLER, 1963; 2005; HONNEFELDER, 1978; MAYORGA, 2007, p. 69-153). To be endowed with “entelechia formality” or the mode of being of a universal law is to be endowed with a *formalitas* (being the conceivable aspect of a real), the unity of which is lesser than that of numerical identity but greater than that of a mere concept, so that one and the same *formalitas* can be conceived of as the ground of its indifference to becoming actualized both as a universal concept and as an individual *haecceitas* (or “thisness”) in *re* (Mayorga (2007, p. 39-68); see also Ingham and Dreyer (2004, p. 33-37, 101-108)). Note, moreover, that if – as future metaphysical inquiry may come to ascertain – there should happen to be no such *formalitates* with a mode of being that allows for their perfectionment (entelechy) in any ontological substrate, then the realization of the *summum bonum* is in and of itself impossible and the “the aim [of scientific inquiry]” (EP 2:203, 1903) is therefore “essentially unattainable” (EP

thoughts *and* things generally” (*The Nation* June 21, 1900, p. 481; CN 2:250, emphasis added), and (ii) its *non-delimitation*, consisting in its being such that it necessarily “refuses to be limited to any particular matter of realization” (ibid.) if and only if it is endowed with said formality. Note that Peirce’s mature conception of the non-delimitation of the growth of reasonableness to a specific ontological substrate – which is the key for conceiving of reason as “a something manifesting itself in the mind [as well as] in the history of mind’s development, and in nature” (EP 2:254, 1903) – is grounded in the possibility of there being ends endowed with the perfecting agency of entelechial formality (*Section II*).

In the final section, we introduce “Peirce’s Inverse Triangle of Motivating Ends of Action”, a complex diagrammatical classification of ends found in drafts of his Pearson review (R 1434:024-026). This classification represents Peirce’s final, most ambitious attempt to produce a general taxonomy of ends, on which much of his later work in the realm of the pre-logical normative sciences depends (CP 1.581-584, 1901; EP 2:202 f., 2:253, 1903). In the context of the Pearson review, however, the classification takes on the argumentative role of a major premise in a syllogism that has the description of the “motive of the man of science” (EP 2:58 f.) as its minor premise, and the proposition that the motive that actually inspires the man of science coincides with the *summum bonum* (EP 2:59 f., 1900/01) as its conclusion (*Section III*). “The only ethically sound motive is the most general one; and the motive that actually inspires the man of science, if not quite that, is very near to it, – nearer, I venture to believe, than that of any other equally common type of humanity” (EP 2:60, 1900/01).

2 The earliest Peircean classifications of ultimate ends of action

2.1 The overarching developmental context

While the *Cambridge Conferences* offer a systematic account of Peirce’s philosophy, allowing us to reconstruct both his general understanding of ethics and its exclusion from philosophy on a settled textual basis (R 435-437, especially R 435:10 and RLT:115-116, 1898), the task of tracking the development of his conception of ethics from 1898 to 1901 is a philological challenge. At that time Peirce was living in a deteriorating financial situation, his main source of income being the publication of book reviews in journals such as *The Nation* and contributions to Baldwin’s *Dictionary of Philosophy and Psychology* (BRENT, 1998, p. 86). His return to his own projects in spring 1901 was possible only due to the support of his friend Francis Lathrop.¹⁰ Still, although Peirce *prima facie* seems to have written no major philosophical texts in 1899 and 1900, his conception of ethics nonetheless went through its most significant developments in exactly those years, and he adopted the strategy of selecting books for review that would allow him to tackle the core items on his own research agenda.¹¹

Consequently, a comprehensive reconstruction of the unfolding of Peirce’s mature thought on ethics in the years 1899-1901 must focus on a variety of *parerga*, comprising reviews and their drafts, notes, and encyclopedic articles, in addition to the major works mentioned above. *Thematically*, these texts belong to four groups:

2:203, 1903). By introducing the neologism “entelechial formality” we thus mean to capture the respect in which Peirce builds upon the Scotistic doctrine of the *distinctio formalis* and the realist conception of the status of universals generally while moving beyond it by conceiving of the *natura communis* as a developing law that is of the nature of a sign, as Peirce in his reflections on “Signs, or Entelechies” (NEM 4:299, 1904) will start to theorize in greater detail after 1903: “The very entelechy of being lies in being representable. [...] A symbol is an embryonic reality endowed with power of growth into the very truth, the very entelechy of reality. This appears mystical and mysterious simply because we insist on remaining blind to what is plain, that there can be no reality which has not the life of a symbol” (EP 2:324, 1904).

10 Lathrop commissioned the two major works in which Peirce’s mature architectonic emerged, viz. “On the Logic of Drawing History from Ancient Documents” (fall 1901) and the *Minute Logic* (summer 1901 to spring 1902), for which Lathrop paid Peirce with \$750; see L 245, especially the letter from Lathrop to Peirce of October 22, 1901.

11 The importance of Peirce’s book reviews in this period is also well understood by Ery (2005, pp. 109-121).

First is Peirce's review of the first volume of Josiah Royce's *The World and the Individual*, published in *The Nation* on April 5, 1900 (v. 70, n. 1814, p. 267; CP 8.100-116; R 1426).¹² Even more than William James's *The Will to Believe and Other Essays in Popular Philosophy* (1897), this work played a pivotal role in reconfiguring Peirce's interest in "the ethical side of logic" (L 385:040, 1902) and consequently sparked his criticism of the conception of the end of thought, the aim of inquiry, and of the *summum bonum*, which he realized to be presupposed in his own early pragmatism (CP 5.3-4, 1900; CP 2.111-118, 1902; R 284:4, 1905).

Second is material related to the classification of ends, especially in the reviews of "Frank Thilly's *Introduction to Ethics*", published in *The Nation* in June 1900, and of Karl Pearson's *Grammar of Science*, published in the *Popular Science Monthly* of January 1901. As we shall see, Peirce used these texts to criticize Thilly's Wundtian classification of ends, work out his own approach, and reflect upon the fundamental importance such a classification has for our conception of the purpose of scientific inquiry.

Third is a series of drafts of a paper on Hume's refutation of miracles and the history of the concept of a law of nature (R 692, 869-873; see EP 2:67-74, Spring 1901). It is in the context of these texts that Peirce elaborated his mature, realist conception of law and that he first stated that "[l]ogic, indeed, may be regarded as a branch of ethics" (R 692:4, 1901).

Fourth brings into view and clarifies the – mainly Agassizian (CP 1.227-231; NEM 4:64-68, 1902) – origins¹³ of the theoretical *foundations* of the "Detailed Classification of the Sciences" of the *Minute Logic*. At the beginning of the second chapter entitled "Pre-logical Notions", Peirce develops a general theory of final causation and ends (R 427; CP 1.203-1.283) that allows us to conceptualize the development of scientific semeiosis as a potentially unlimited process that has the same ultimate end as the objects of the sciences represented within the process itself (CP 1.204 ff., 1902; R 1343:12, 1903), i.e., as a process characterized by, as Helmut Pape (1993, p. 582) puts it, a "teleological homogeneity"¹⁴ with its object.¹⁵

As the first two groups of texts center around the concept of the *summum bonum*, while the third and fourth focus on the concepts of a *natural law* and *final causation* respectively, we obtain a raw sketch of the configuration of problems from which Peirce's mature conception of ethics and the normative sciences emerges. In the present paper, however, we restrict ourselves to the task of securing the philological basis and drawing the outlines of Peirce's thought on pure ethics and the classification of moral ends to which it aims (CP 4.243, 1902).

2.2 The chronology of Peirce's classifications

On April 7 and 10, 1899, Peirce worked on a piece entitled "The Place of Logic Among the Sciences" in his *Logic Notebook* (R 339:167r-169r, 1899). There is no mention of ethics in the short fragment; the evolutionary genealogy of the sciences that Peirce sketched, however, aims at grounding the classification of the sciences in "the affinities and sympathies between different men", which in turn are taken to be rooted in the animal instincts of "feeding" and "reproduction" (R 339:168r, 1899): "All science is the development of those two instincts" (ibid.). Accordingly, the importance of conceiving of the sciences not as an *érgon* but as an *enérgeia* with an inherent maximal *telos* – "the essence of science does not lie in its truth, but in its striving after truth, and in *the breadth and generality of the truth striven for*" (R 339:168r; my emphasis, 1899) – is emphasized for the sake of establishing their "natural classification"

12 For a sketch of the influence Royce's thought exerted on Peirce's conception of ethics, see Emy (2005, p. 111-119).

13 Neither Short (1981) nor Hulswit (2002) deals with the genealogy of Peirce's mature theory of final causation.

14 See also Pape (1989, p. 346-366, especially p. 353).

15 See R 1343:12 (emphases mine): "A natural classification, that is to say, a birth-al classification, is a classification whose governing *idea coincides with the idea which determines the things classified to exist*. An idea, so far as it has any relation to life, is a possible purpose. Therefore, the spirit of this work requires us here to regard a natural classification as a classification that *conforms to the purpose, or quasi-purpose, of the existence of the objects classified*."

(R 339:168r, 1899). Thus, although we find here a clear articulation of the fundamental role our conception of *the aim of science* plays for its practice, we nonetheless see no attempts to conceive of ethics as a science that ought to be considered when determining the place of logic among the sciences. We can therefore mark “The Place of Logic Among the Sciences” as our *terminus post quem*. In April 1899, Peirce does not yet see the need to integrate ethics into his architectonic, although the reality of the *sympathetically* shared ends that animate inquiry is now put center stage for understanding its cooperative nature:

Men pursuing similar inquiries converse together, and their ideas become more and more assimilated; while men whose lines of study lie apart do not fully understand one another, and seeing less of one another acquire widely different series of conceptions. Thus the lines of demarcation between the sciences get etched deeper. (R 339:167r, 1899; see EP 2:146, 1903; R 693:30, 1904).

More than a year later, in the June 21, 1900, edition of *The Nation*, Peirce published a (radically shortened) review of Frank Thilly’s *An Introduction to Ethics*. The review frankly criticizes both the systematic chapters (where “thought of no very forcible logical cohesion is administered in pretty dilute solution”) and the historical strand of the work (the summarizing presentation of which in a “taxonomy of opinions” is praised as such, though dismissed as “not quite what we could desire” in its details) (*The Nation* June 21, 1900, p. 480; CN 2:249). Peirce’s criticism culminated in accusing the author of having “borrowed from Wundt [...] the classification of the doctrines concerning the basis of right and wrong [...] without acknowledgment” (ibid.).¹⁶ Thilly protested this accusation of plagiarism in a letter to the editor (*The Nation*, v. 71, n. 1833, August 16, 1900, p. 131). Insignificant as it is, this small dispute indicates the central interest that likely motivated Peirce to review the work: the classification of “theories of the basis of morals” (R 1429:07) in accordance with their conception of the criterion of moral action.

From a philological point of view, it is important to note that the editors of the *Collected Papers*, without any editorial annotations, inserted passages from the drafts of the Thilly review (R 1429) into the fourth book (“The Normative Sciences”) of the first volume (“Principles of Philosophy”). More specifically, Chapter 3, entitled “An Attempted Classification of Ends” (CP 1.585-590), is a collation of R 1134 – from which the first four paragraphs (CP 1.585-588) are taken – and of R 1429, from which the last two paragraphs (CP 1.589-590) stem. The editors dated both parts to “c. 1903”, but while the second part – which neatly extracts the results of Peirce’s first attempts to establish his own classification of ends (R 1429:13-16) from the drafts of the Thilly review – was obviously written briefly before the publication of the review in June 1900, the first part (i.e., R 1134) was written in April 1901 (as its draft R 1133, dated “1901 Apr 11” clearly proves).

The confusion originating from these editorial shortcomings becomes evident as soon as we focus on the chronology of these classifications.¹⁷ After (i) the Thilly review (June 1900), the classifications of which culminate in a first list entitled “Rational Theories of the True End of Action” (R 1429:013; CP 1.589, 1900), Peirce (ii) returns to the task of classifying ends in the context of his review of Pearson’s *Grammar of Science* in December 1900. This classification, given in tabular (R 1434:021-023, 1900) and diagrammatical (R 1434:024-026, 1900) format in the drafts and presented merely as a loosely stated list in the text of the review (EP 2:59-60, 1901), is of the utmost importance; it represents

¹⁶ A few years later, however, Peirce himself did not feel obliged to indicate the Wundtian origin of the expression “peculiar appreciations” (EP 2:199) in his *Harvard Lectures*. In his *Ethik*, Wundt saw “the outstanding character of the objects of the sciences of norms” as consisting in their “differentiation of certain matters of fact from others by the moment of a peculiar valuation” (1886, p. 3, my translation), where “peculiar valuation” in the original reads as “besondere Werthschätzung” and is, without acknowledgment of the source, gracefully translated by Peirce as “peculiar appreciations”.

¹⁷ Liszka (2021, p. 199) arrives at a different chronology, as he overlooks the taxonomy in the *Logic Notebook* (R 339:195r, September 1901) and follows the erroneous dating of R 1334 suggested in the *Collected Papers*.

the only comprehensive classification of – both autonomous *and* heteronomous – ends *in general* Peirce seems to have ever produced (*infra*, Section IV). Moreover, Peirce himself considered this classification his best effort, and he referred to it in all subsequent taxonomies: (iii) in the “Attempted Classification of Ends” (CP 1.585; Rs 1133-1134, April 1901), in which he revisits the classification from the Pearson review in order to produce an “improved statement” (CP 1.585; R 1134:2) of a taxonomy, the ordering of which is praised as “sufficiently complete and systematic” to be “amplified into a satisfactory classification of ends” (*ibid.*); (iv) in the *Logic Notebook* (R 339:195r, 1901) in September 1901 and, eventually, (v) in his aborted classification in the *Minute Logic* (CP 1.579-584; R 433:12-21; see also R 434:29 ff., R 434:2, 1901) in which, in the fall of 1901, he reduplicated its first divisions.¹⁸ Moreover, Peirce affirmed his commitment to the results of his classification in the Pearson review in 1905 (CP 8.138 n) and 1911 (EP 2:460).

As our survey of this labyrinth of interrelated texts shows, from spring 1900 to fall 1901, Peirce worked repeatedly on the task of classifying ends and arrived at a result he deemed diagrammatically satisfactory, though difficult to unfold discursively.

2.3 The reception and critique of Wundt’s and Thilly’s classifications of ends

2.3.1 The emergence of a tripartite view of ethical inquiry

As the opening of the final draft of the Thilly review shows, Peirce was as biting critical of ordinary prescriptive ethics in spring 1900 as he had been in 1898, when he had referred to it as, “even if not a positively dangerous study, *as it sometimes proves*”, still “as useless a science as can be conceived” (R 435:31, my emphasis).¹⁹

Whether theorizing about duties (a very different thing from reflecting upon one’s duties), can ever do enough good to *outweigh all the crimes that are chargeable to it*, or not, it cannot be denied that there are two delightful and innocent branches of prolegomena to Ethics, *the description of the facts of moral life*, on the one hand, *the logical analysis of the conceptions connected with morals*, on the other. The latter of these is one of the very best whetstones of the wits ever found; and it has never caused anyone to be burned at the stake. (R 1429:1, 1900, my emphases).

While Peirce’s criticism of ordinary prescriptive ethics echoes loudly here, we can also observe a new motive unfolding: the distinction of two “innocent” kinds of ethical inquiry that have not been prone

18 Most of the manuscripts of the *Minute Logic* contain date stamps which, in rather irregular intervals, appear on the margins. Accordingly, we can see that Peirce wrote Chapter III, on “The Simplest Mathematics” (R 429-431), in January 1902; in February he was busy with the first section (“Classification of the Sciences”) of Chapter II (“Pre-logical Notions”) and in late April and May with the second section (“Why Study Logic?”). The manuscripts that do not contain date stamps are Chapter I (“Intended Characters of this Treatise”) and Chapter IV (“Ethics”). The most probable reason is that these two chapters were written before Peirce had bought the stamp. But as this stamp seems to be used for the first time in the *Logic Notebook* on December 10th, 1901 (R 339:200r), the chapter on ethics seems to have been written before this date. That the first chapter was written before August 15, 1901, can be easily deduced from the correspondence with Francis Lathorp (L 245, Lathorp to Peirce, September 24, 1901). According to the letter that Peirce sent to Royce on January 19, 1902 (L 385), the “chapter on Ethics” had not yet been written by then; but this does not mean that Rs 432-434 had been written in 1902; rather, those manuscripts seem to represent early, incomplete drafts of early fall 1901 that in several respects were then superseded by the development of the *Minute Logic*.

19 Peirce argued in 1898 that ordinary prescriptive ethics is dangerous if it is considered to be more than a purely theoretical endeavor and allowed to influence our conduct. A *morality of reflection* with its “prying into the philosophical basis” and “reasoning out an explanation of morality” is – insofar as it aims at replacing the substance of ethical conduct with something that corrodes it – “of the very substance of immorality” (R 435:30). Peirce conceived of the fundamental intention underlying the very idea of ordinary prescriptive ethics as the symptom of a moral decadence that is detrimental for mankind, for two reasons. First, the project of ordinary prescriptive ethics with its apotheosis in a religious metaphysics (see R 435:15-16) – “It is a thousand times better to have no faith at all in God or virtue, than to have a hemi-hypocritical faith” (R 435:17; CP 1.660) – is based on a nominalistic misunderstanding of the foundations of science in that “mechanical philosophy” that shapes the modern history of ideas (R 435:17-23); secondly, ordinary prescriptive ethics neglects the essentiality of conservatism for any *substantial morality* that regulates the behavior of large groups and political communities in the spirit of an unquestionable traditionalism by instilling “the belie[f] in thinking as you have been brought up to think” (R 435:30).

to ideological misuse. In this important passage, ethics is no longer conceived as a monolithic block. Rather, loosely following Wundt, Peirce now sees the field of ethical inquiry to be tripartite. First, there is “the description of the facts of moral life” (R 1429:1, 1900), i.e., a naturalistic kind of ethical inquiry that aims at identifying and describing the manifestations of morality in daily life. Wundt (1908, p. 19) refers to this as the “*anthropological method*” in ethics, which comprises “ethnic psychology, the history of primitive man, and the history of civilization, as well as the natural history of mankind”. Second, there is “the logical analysis of the conceptions connected with morals” (R 1429:1, 1900), i.e., a line of inquiry which we might refer to as “metaethical” today and which aims at clarifying the meanings, relations, and logic of the core concepts of ethical discourse and valuation. Wundt (1908, p. 19) refers to this as the “*scientific reflection upon ethical concepts*”, which “goes beyond the mere data, the ethical facts, introducing reflection upon the facts, and attempting their analysis and classification under general points of view”. Finally, Peirce differentiated a prescriptive branch of ethics that, by “theorizing about duties” (R 1429:1, 1900), aims at determining what ought to be done *generally* and is sharply sundered from the non-scientific activity of “reflecting upon one’s duties” (R 1429:1, 1900) in a unique situation. According to Wundt (1908, p. 19), the former task constitutes “the peculiar problem of systematic ethics”, which in its general part thus aims at identifying the “*principles* on which all judgments of moral value rest”. As Peirce labeled both the naturalistic “description of the facts of moral life” and the metaethical “logical analysis of the conceptions connected with morals” as “prolegomena to Ethics” (R 1429:1, 1900), he clearly took these forms of inquiry to be more fundamental than ordinary prescriptive ethics. Again, Peirce took a stance like that of Wundt, who spoke of the first two inquiries as a “twofold inductive preparation” (1908, p. 19) from which an inquiry into the principles of ethical judgment can be started. As the Thilly review shows, Peirce takes the classification of possible ends (qua criteria of moral action) to be a metaethical inquiry that clarifies what we necessarily presuppose to be the case and mean to express when we assert that the act δ , the kind of conduct η , or the character trait α are good (or bad).

2.3.2 The schemes of Wundt and Thilly

A second aspect of the Thilly review that is worthy of our attention is related to the general nature of Peirce’s criticism of Wundt’s and Thilly’s classifications of ethical systems and their respective conceptions of the ultimate aim of action. As both Peirce and Thilly build upon Wundt’s classification, it will be useful to briefly introduce the Wundtian scheme.²⁰

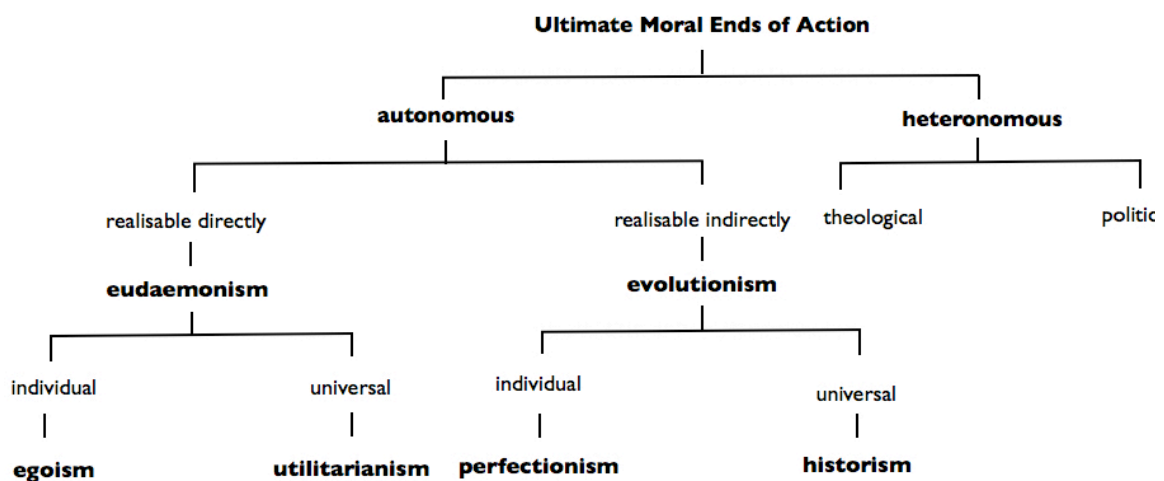
The passage in Wundt’s *Ethics* to which Peirce saw Thilly referring “without acknowledgment” (R 1429:07, 1900) is located in the second part of the work, at the beginning of the fourth chapter entitled “General Criticism of Ethical Systems”.²¹ There, under the heading “Classification of Ethical Systems”, Wundt first introduced his readers to two fundamental aspects of classifying ethical systems, namely, classifications in accordance with the antecedent *motives and causes* of action, and classifications in accordance with the consequently realized *aims and ends*. Ethical systems that highlight the role of *motives and causes* in moral action differentiate between feeling, understanding, and reason as sources of morality and thus aim at deducing morality from a specific faculty. Accordingly, the ethical originates in emotions, in reflection, or in an intuitive rational insight (WUNDT, 1906, p. 160-163). The more important classification of the aims and ends of moral action, however, begins with a distinction between

20 Wundt’s scheme, like all tables of ultimate ends and ethical systems, has its origin in Kant’s table of the “Practical Material Determining Grounds in the principle of morality”, which famously structures his critique of all possible forms of heteronomous material ethics in § 8 of the “Analytic of Pure Practical Reason” of the second *Critique*.

21 Wundt’s *Ethik. Eine Untersuchung der Thatsachen und Gesetze des Sittlichen Lebens* was published in 1886 and appeared in English in three tomes under the title *An Investigation of the Facts and Laws of the Moral Life* in fall 1897. The voluminous work of roughly 750 pages consists of four main parts dealing with (i) the natural and cultural conditions of moral life and its development (“The Facts of Moral Life”, Volume I of the English translation), (ii) the history of ethical doctrines (“Ethical Systems”, Volume II of the English translation), (iii) the general principles, and (iv) domains of moral judgment as constituted by the individual, society, the state and humanity (combined in Volume III of the English translation entitled “The Principles of Morality, And the Sphere of Their Validity”).

heteronomous and *autonomous* moral systems. The former regard the end of moral action “as having their source not in man’s own nature, but in an external command”; the latter are systems in which the ends of moral action are “regarded as peculiar to man himself, and [as] arising from natural dispositions and the natural conditions of development” (WUNDT, 1906, p. 163).

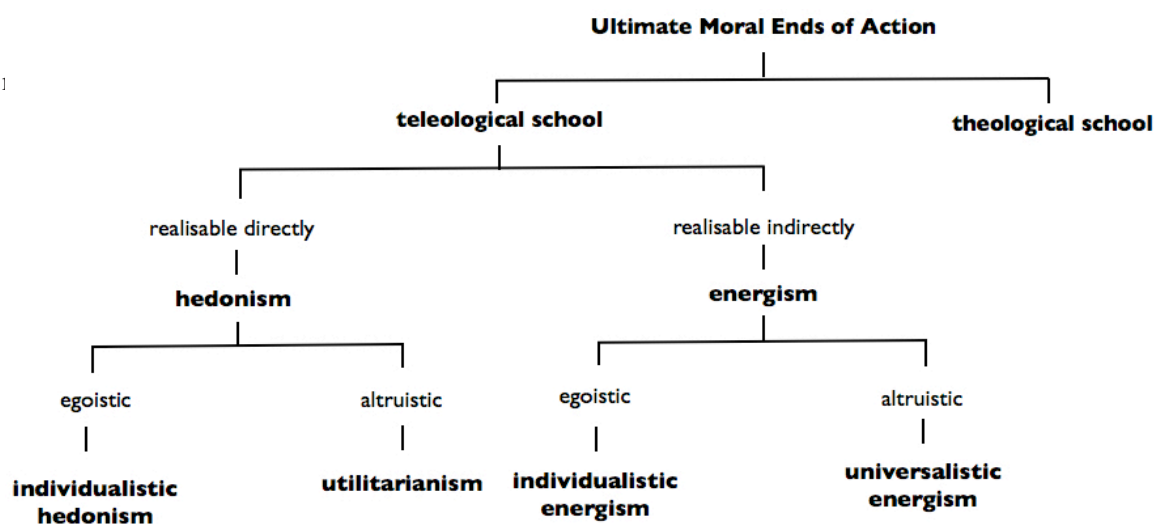
However, since this distinction concerns only the *mode of givenness* of moral ends, the Wundtian classification *according to the contents* of these ends actually begins with the dichotomy of two *modes of realization*, namely, the *direct realization* of moral goods “by the agent, his fellow-man, or both”, and their *indirect realization* for which the “ultimate end of every moral act, is not its immediate effect, but the final goal of [... a moral] development” (WUNDT, 1906, p. 163). Because the first class of directly realizable goods has its being in the pleasure of a physical or intellectual gratification, Wundt conceived of these aims as “eudaemonistic” and opposed them to “evolutionary” moral ends, which are taken to have their goodness in their contribution to moral development. Furthermore, differentiating in both main classes between an individual and a universal tendency, Wundt eventually obtains four main ethical positions defined by their conception of an autonomously pursued ultimate moral end: (i) “*individual eudaemonism, or egoism*”, which is based on the principle that the ultimate aim of moral action resides in “individual happiness”; (ii) “*universal eudaemonism, or utilitarianism*”, which is based on the principle that the ultimate aim resides in the “welfare of all”; (iii) “*individual evolutionism*”, which is based on the principle that the aim resides in the “*perfection of the individual*”; and (iv) “*universal evolutionism*”, which is based on the principle that the ultimate aim resides in the “*spiritual development of mankind*” (*Historismus*) (ibid., p. 164)²² Note that in neither of the two forms of evolutionism is the purpose of moral action ever *fully* attainable. Accordingly, the goods which are sought to be realized in perfectionism and historism are no “means to happiness” (*Glücksgüter*) (ibid.). We thus obtain the following scheme:



Now let us compare Wundt’s scheme to what Thilly presented in his *Introduction to Ethics*. At the end of the fourth chapter, entitled “The Ultimate Ground of Moral Distinctions”, we see Thilly’s first step mirroring Wundt’s systematic preference of aims and ends over motives and causes, inasmuch as “the ultimate ground of moral distinctions lies in the *effects* which acts tend to produce”, so that the task of classifying conceptions of the *summum bonum*—“the end or purpose which morality realizes or seeks to realize” (THILLY, 1900, p. 125 f.)—can emerge:

22 The English translation does not use the convenient term “Historismus”, which Wundt in the original introduces as a synonym for “Universeller Evolutionismus”; see Wundt (1886, p. 353); “b) Universeller Evolutionismus oder Historismus”; Peirce uses the term “Historicism” in the drafts of the Pearson review.

Different answers have been given: (1) Morality conduces to pleasure or happiness; it is the pleasure-giving quality of an act that makes it good. [...] Hence we may call this view the pleasure-theory, or *hedonism*. It declares that acts are good or bad according as they tend to produce pleasure or pain. But, we ask, Pleasure for whom? My pleasure or your pleasure? (a) Mine, say some. Acts are good or bad because they tend to make me happy or unhappy. This is *egoistic* [...], or *individualistic hedonism*. (2) According to other teleologists, the principle of morality is not pleasure or happiness, but the preservation of life, “virtuous activity”, welfare, development, progress, perfection, realization. We might call the adherents of this school anti-hedonists, or according to their more positive tenets, vitalists [...], perfectionists, realizationists, or *energists*. The energists or perfectionists hold that acts are good which tend to preserve and develop human life. We may have here, as above: (a) *egoistic* or *individualistic energism*; and (b) *altruistic* or *universalistic energism*. According to the former, the end of morality is the preservation and development of individual life; according to the latter, the life of the species. (THILLY, 1900, p. 126 f.)



Now, with a view on this parallelism, Peirce was doubtless entitled to extract the following scheme as an articulation of the commonalities between Wundt’s and Thilly’s classifications, so as to establish a starting point for his criticism of *both* positions:

The classification of theories of the basis of morals adopted by Prof. Thilly is taken (without acknowledgment, by the way, so far as we see) from Wundt. Its scheme is as follows: I. The Moral Law is externally imposed. II. The Moral Law is rational. [II.1] Its end is happiness; (a) that of the agent; (b) that of the generality; [II.2] Its tendency is improvement (a) of the agent; (b) of the community. (R 1429:05; cf. *The Nation* June 21, 1900, p. 480; CN 2:249-250; additions in square brackets mine).

3 Peirce’s first classification of ultimate ends of action (June 1900)

Having outlined the context in which Peirce would produce his first classification of ultimate moral ends in the drafts of the Thilly review, we can now start to move towards a consideration of its contents. But as this classification grows out of a systematization of his critique of the Thilly-Wundtian scheme, we first need to reconstruct Peirce’s criticism. What is wrong with the Thilly-Wundtian classification of ultimate ends?

At the center of Peirce's criticism, we find a consideration which – once we have added some terminological clarifications – turns out to focus on the conceptual foundations of the Thilly-Wundtian taxonomy, i.e., on the *categoriaiology* underlying their scheme:

The most serious defect of this classification lies in its subdivision of rationalistic theory into only two branches, splitting upon the insignificant question of whether the end is completely attainable or not. (R 1429:017; *The Nation*, June 21, 1900, p. 481; CP 1.590; CN 2:250; the comma is only to be found in the published version of the review).

Note that the term “rationalistic” is here meant to represent the first *membrum dividendum*, both in Wundt's classification (with its disjunction of an “autonomous” and a “heteronomous” givenness of the ultimate end) and in Thilly's classification (with its disjunction between a “teleological” and a “theological school” of conceptualizing the *summum bonum*). Accordingly, Peirce expressed this main disjunction by contraposing the position “I. The Moral Law is *externally imposed*” to the view that “II. The Moral Law is *rational*” in the text of the review. The term “rationalistic theory” – which Peirce used both in the published review and in the decontextualized fragment published at CP 1.590 – was thus meant to express the notion of a conception of the ultimate end of action that is not externally imposed by a supranatural or political authority, but autonomously originating from our capacity to act on and give reasons. Accordingly, Peirce stated his criticism with a view on the Thilly-Wundtian classification of the “autonomous” (Wundt), “teleological” (Thilly), or “rationalistic” (Peirce) mode of givenness of the ultimate aim.

If we now consider in more detail what exactly Peirce was criticizing, we find that the objects of Peirce's critique are, first, the *dichotomic nature* of the classification – the “subdivision of rationalistic theory into *only two branches*” (ibid.) – and, second, the *systematic irrelevance* of the adduced *ratio divisionis* – i.e., the “splitting upon the *insignificant* question of whether the end is completely attainable or not” in the “subdivision of rationalistic theory” (ibid., emphasis mine).²³

That the *ratio divisionis* of the subdivision of rationalistic positions is “insignificant” means that it is not substantial for a *natural* classification. Instead of considering the accidental quantitative property of an end to be either fully or partially actualized (by finite moral beings), we should, Peirce suggested, first consider most generally what *kind of* entity an ultimate end can *possibly* be. As this is not a metaphysical question but a categoriological one, Peirce, in the remainder of the passage, envisaged a trichotomic division adopting the universal “Kainopythagorean Categories” (R 141:5; CP 7.528, c. 1899) as its *ratio divisionis*:

[T]here have been those who have made the end purely subjective, a feeling of pleasure; there have been those who have made the end purely objective and material, the multiplication of the race; and finally there have been those who have attributed to the end the same kind of being that a law of nature has, making it lie in the rationalization of the universe. (R 1429:017; CP 1.590).

23 A methodological deficit of Liszka's (2021, p. 199-202) interpretation of Peirce's first classification of ends in the drafts of the Thilly review is that he focuses exclusively on the development of the classifications instead of reading them in the context of the review as a whole. It is only by first excavating the conceptual presuppositions of, and identifying the structural commonalities, in Wundt's and Thilly's schemes that we can reconstruct Peirce's criticism of them and thus appreciate the importance of Peirce's first classification of moral ends. Although it is true that Peirce, as Liszka (2021, p. 199) notes, did not “include any of them in the published review”, Peirce nonetheless found the result of his classifications important enough to ensure it would be included in the final text appearing in *The Nation*: “If we conceive that there is a methodical ideal – like order, or rationality – neither specifically psychical nor physical, which somehow has a power of developing itself in thoughts and things generally, then whatever furthers this progress is good, and vice versa; and such a conception refuses to be limited to any particular matter of realization”. (*The Nation*, June 21, 1900, p. 481; CN 2:250). This result is obviously a determination of the *summum bonum*, or more precisely, a determination of the *summum bonum* as an end endowed with entelechial formality. The importance of the Thilly review, both for Peirce and for his scholars, lies in the announcement that the *summum bonum* is of *that kind*.

An ultimate end can be only (i) of the nature of a *quality* (inasmuch as the end might be a *First*, i.e., something “purely subjective, a feeling of pleasure”), (ii) of the nature of an *existing thing* (as the end might be a *Second*, i.e., something “purely objective and material”), or (iii) of the nature of a *law* (inasmuch as the end might be a *Third*, i.e., have “the same kind of being that a law of nature has”). So philosophers have factually endorsed hedonistic, utilitarian, or deontological conceptions of an ultimate end, potentially even amenable to an evolutionary interpretation: “Act only in accordance with that maxim through which you can at the same time will that it becomes a natural law” (AA 4.421).

The task of establishing a taxonomy of moral ends from the stance of a proto-phenomenological “High Philosophy”, – “which brings to light certain truths applicable alike to logic and to metaphysics” (CP 7.527; R 141:4, c. 1899) and, we might add, to *Ethics* – has a twofold consequence. With a retrospective view on the systematizing Sciences of Review that Peirce would soon come to include in his architectonic (CP 1.256, 1902), this opens up fresh heuristic perspectives for the writing of the history of ethics; with a prospective view on the knowledge-producing Heuristic Sciences, the categoriological stance allows us to identify gaps, i.e., to avoid the neglect of potentially insightful conceptions of the *summum bonum* that we might fail to identify due to erroneous assumptions, such as those entertained by Wundt and Thilly:

Finally, [Thilly’s classification] leaves out of account the possibility of so conceiving the ultimate end that it shall not be limited either to the Individual or to human society. If we conceive that there is a methodical ideal—like order, or rationality—neither specifically psychical nor physical, which somehow has a power of developing itself in thoughts and things generally, then whatever furthers this progress is good, and vice versa; and such a conception refuses to be limited to any particular matter of realization. (*The Nation*, June 21, 1900, p. 481; CN 2:250).

Note that, although Peirce seems to have mentioned this second consequence only as a side note, it factually communicates the final result of his first classification of ends (R 1429:013-016). Accordingly, in its original context in the drafts of the Thilly review, we see this result recorded under the heading “*Rational Theories of the True End of Action*” (R 1429:013). In the *Collected Papers*, however, all references to this original context have been eliminated. By preferring the penultimate version of the taxonomy (R 1429:014) to the final version (R 1429:013), by dating the manuscript to “c. 1903”, and by positioning the classification in such a way that its first sentence – “All these distinctions would be embraced by some such scheme as the following” – artificially refers back to CP 1.585-588 (R 1134), i.e., to a text that was written almost a year later, the *Collected Papers* fail to convey Peirce’s intention to produce a taxonomy that *includes* the Thilly-Wundtian scheme. Finally, by disregarding the heading Peirce gave to the final version of his classification – “*Rational Theories of the True End of Action*” – with its reference to the disjunction of externally imposed *versus* autonomous modes of givenness of the ultimate end in the Thilly-Wundtian scheme, the actual meaning of the expression “subdivision of rationalistic theory” in the subsequent paragraph CP 1.590 (R 1429:017) was hidden. As a consequence, the beginning of an Ariadne’s thread through Peirce’s earliest work in the field of the emerging Normative Sciences was buried in a maze of scattered drafts and fragments.

All these distinctions would be embraced by some such scheme as the following:

- I. The end is to superinduce upon feeling a certain quality, pleasure.
- II. The end is to extend the existence of a subject.
 1. Of something psychical, as a soul;
 2. Of something physical, as a race.
- III. The end is to realize a general ideal.

1. To bring about some general state of feeling, such as the greatest pleasure of the greatest number of persons;
2. To impress a definite subject with a definite character.
 - (a) This character being inward, such as altruistic sentiment;
 - (b) This character being outward, such as the peace and prosperity of mankind.
3. To further the realization of an ideal not definable in advance, otherwise than as that which tends to realize itself in the long run, or in some such way.
 - (a) This ideal being supposed to be of the inward type;
 - (b) This ideal being supposed to be of the outward type;
 - (c) This ideal being purely methodical, and thus equally capable of inward and of outward realization. (R 1429:014; CP 1.589).

In this classification of ends, which integrates all classes of the Thilly-Wundtian scheme in a categoriologically structured manner, Peirce, in analogy to the schemes he used for his taxonomies of signs (e.g., EP 2:289-299),²⁴ distinguished nine *possible* classes of ethical systems as defined by their respective conceptions of the ultimate end. Whether a certain class is *really* capable of actualization, however, is not a question to be answered by a purely *constructive* phenomenological classification that considers ultimate goods as qualitative possibilities without any reference to volition and effort, but rather by another type of “normative” (i.e., norm-*related*) inquiry. In the “Chapter on Ethics” (R 432-434, fall 1901) of the *Minute Logic*, both tasks are still assigned to *one* science named “pure ethics”. In spring 1902, however, Peirce assigned the first, constructive task to “Esthetics” and the second, selective task to “Ethics” (CP 2.198-199).

Thus, if we focus on the highest subclass of ends that Peirce characterized in the same text as having “the same kind of being that a law of nature has” and that he said makes the supreme good “lie in the rationalization of the universe” (R 1429:017; CP 1.590, 1900), we should first note that his classification does not claim more than the phenomenological *possibility* of such ultimate ends (see EP 2:203, 1903). Second, we should note that the conceptual articulation of the third major class of ends – both as a whole and of its individual members – changes significantly in the versions found in R 1429:

The end is to realize a general idea,

1. This idea is a uniformity among feelings, as that of the greatest pleasure of the greatest number of persons.
2. This idea is a definite character to be impressed upon a definite subject,
 - (a). It is a psychical character capable only of psychical realization, as altruistic sentiment.
 - (b). It is a physical character capable only of physical realization.
3. This idea is not definable in advance.
 - (a). But it is to be realized psychically, in mental perfection.
 - (b). It is to be realized physically, in the perfectionment of society etc.
 - (c). It is to be realized as it may, not definably in advance. (R 1429:015-016; 1st version, 1900)

The weaknesses of this first attempt are glaring: some subclasses are worded counterintuitively (e.g., 3b), improperly (e.g., *membrum* 3c factually only repeats the determination of its *dividendum*), or too vaguely to express a definite idea (e.g., 2b, 3c). But Peirce produced a second version, which is the version published in the *Collected Papers*:

24 See Bellucci (2018) for a fine account of the development of Peirce's taxonomies of signs from 1865 to 1909.

The end is to realize a general ideal:

1. To bring about some general state of feeling, such as the greatest pleasure of the greatest number of persons;
2. To impress a definite subject with a definite character
 - (a). This character being inward [~~crossed out: psychical~~], such as altruistic sentiment.
 - (b). This character being outward [~~crossed out: physical~~], such as the peace and prosperity of mankind.
3. To further the realization of [~~crossed out: realize~~] an ideal not definable in advance, otherwise than as that which tends to realize itself in the long run, or in some such way.
 - (a). This ideal [~~crossed out: character~~] being supposed to be of the inward type;
 - (b). This ideal [~~crossed out: character~~] being supposed to be of the outward type;
 - (c). This ideal [~~crossed out: character~~] being purely methodical, and thus equally capable of inward and outward realization. (R 1429:014; CP 1.589; see also R 1429:08, 2nd version, 1900).

Significant changes occur in this second version. First, note the move from identifying the end as the realization of a “general idea” (version one) to speaking of the end as a “general ideal” (version two); whereas version one considers the realization of the *realisandum* (qua “general idea”) to be one that might possibly be completed at some point of time, version two considers the *realisandum* (qua “general ideal”) as one that – being an *ideal* – will *never* be completely realized. This move accentuates the open-ended “developmental teleology” (W 8:155, 1892) of the realizational process and the essential vagueness of an end that develops *in* its pursuit. As a consequence, we might say that version two is pervaded by a spirit of thirdness and *actuositas*,²⁵ inasmuch as the end is no longer linguistically articulated (“a uniformity among feelings”, “a definite character”, an “idea [...] not definable in advance”) and thus no longer “substantialistically” conceived of as some static self-identical entity (a *state*, a *quality*, or *contents*), but rather “energetically” as an *act* (“[t]o bring about some general state”, “[t]o impress a definite subject with a definite character”, “[t]o further the realization of an ideal”). Peirce seems to have wanted to replace terms with substance-metaphysical connotations (“psychical”, “physical”, “character”) with references to relationally-differentiated domains of *realisanda* (“inward type”, “outward type”, “ideal”).

The main progress to be noted, however, builds on these modifications without being identical to them. If, with a view on version one, we ask how an idea might be realized that is *not* necessarily *either* “realized psychically” *or* “realized physically”, then the answer is that Peirce himself did not seem to know: “It is to be realized as it may, not definably in advance.” In the second version, however, he gave an answer. And that answer was a Scotistic one: the ideal might be “equally capable of” and thus is – in *its own* being – *indifferent to* “inward” or “outward realization”. Furthermore, Peirce now pronounces the nature of such an ideal to be “methodical”. It is neither a thing, nor a character, nor a process as such, but rather the *form of a process* which might be endowed with a formality that makes it indifferent to its mode of actualization. Thus, in the third and final version of his earliest classification of ends, Peirce wrote:

III. The end is to realize a general ideal:

1. To bring about some general state of feeling, such as the greatest pleasure of the greatest number;
2. To impress a definite subject with a definite character;
 - a. This character being inward such as altruistic sentiment,

²⁵ See Kent (1976, p. 270); Liszka (2021, p. 202).

- b. This character being outward such as civilization.
- 3. To further the realization of an ideal not definable in advance only as the result of a given method, as, for example, that which tends to be realized in the long run;
 - a. The ideal being supposed of the inward type, as spiritual perfection,
 - b. The ideal being of the outward type, as social perfection,
 - c. The ideal being purely methodical, as rationality or order, and thus equally capable of inward and of outward realization. (R 1429:013, third version, 1900).

This final conception of an ideal is – inasmuch as it is “methodical” – ultimately an *ideal of procedural perfectibility*. We can thus begin to appreciate the emergence of an insight from the Thilly review that will allow Peirce to no longer exclude Ethics from Philosophy. This insight is born out of the discovery of a *possible* class of ultimate ends the transsubjective realization of which “refuses to be limited to any particular matter of realization” (*The Nation*, June 21, 1900, p. 481; CN 2:250) and is thus not “limited either to the Individual or to human society” (ibid.) but rather “equally capable of inward and of outward realization” (R 1429:013 f.). Note that this property of the ultimate end and ideal of all action to be non-delimited to any ontological domain of realization and thus to be trans-subjectively realizable is conceivable only on the grounds of a second property. That second property does not pertain to states of affairs that result from the actualization of the ultimate end. Rather, it pertains to that which as a ground makes such consequences possible by inhering in the nature of the end, and is thus that which makes an end fit for trans-subjective, ontologically undelimited realization.

We have referred to the property that makes an ultimate end fit for such realization as “entelechial formality”. We now find Peirce characterizing it as “a methodical ideal – like order, or rationality – neither specifically psychical nor physical” (R 1429:013 f., 1900) which, as such, “has a power of developing itself in thoughts and things generally” (*The Nation*, June 21, 1900, p. 481; CN 2:250). It shares “the same kind of being that a law of nature has” (R 1429:017; CP 1.590), viz., the mode of being of thirdness. The notion of the procedural form of a recursive process of realization in which perfection is approached in the long run by the replacement of suboptimal characteristics with more suitable ones, defines the core of entelechial formality as a “methodical ideal”, i.e., as a structural property of rule-governed, lawful processes of realization that, in themselves and *de se*, are indifferent to the ontological substratum of a process of realization being *in mente* or *in re*. Only the assumption of the possibility of ends endowed with such entelechial formality allows us to conceive of the non-delimitation of the growth of reasonableness, i.e., allows us to non-nominalistically conceive of “Reason itself comprehended in all its fullness” (EP 2:255, 1903) in the conceptual framework of a modernized Scotistic realism:

If we conceive that there is a methodical ideal – like order, or rationality – neither specifically psychical nor physical, which somehow has a power of developing itself in thoughts and things generally, then whatever furthers this progress is good, and vice versa; and such a conception *refuses to be limited to any particular matter of realization*. (*The Nation*, June 21, 1900, p. 481; CN 2:250, my emphasis).

It would be the task of another paper to ponder in detail whether excluding the possibility of an entelechial formality of ends led Peirce in 1898 to also exclude that “there is a third branch [of philosophy], relating to *ends*” (R 435:10, 1898), inasmuch as ethics – being “the science of the end and aim of life” – “seems to be *exclusively psychical*” and, as such, “to be confined to a special department of philosophy, while philosophy studies experience in its universal characteristics” (RLT:115–116, my emphasis, 1898). In the present context, however, we limit ourselves to sketching the further development of Peirce’s taxonomy of ends and to analyzing the argumentative use to which he put it.

4 Peirce's inverse triangle of motivating ends of action (December 1900)

In the December 1900 drafts of the Pearson review, we find three versions of a diagram (R 1434:024-026) in which Peirce formalized the discursive taxonomy of “ethical classes of motives” (EP 2:59, 1901) given in the review. Four months later, he clarified²⁶ that this taxonomy is not an enumeration of motives *qua* psychological “spring[s] of action” (CP 1.585; R 1134:01, April 1901) in the Wundtian sense (*supra*, I.3.2). Instead, it is an enumeration of motives *qua* “aims or ends appearing ultimate to the agent” (*ibid.*), and to appear as such, they can be motivating only on the basis of the ascription of a supreme worth to them (*qua* states of affairs to be realized). We shall therefore speak of ‘motives’ or ‘motivating ends’ interchangeably, as in both cases the reference is to representations of states of affairs judged to be ultimately desirable. The final version of this diagram (R 1434:025, 1900) might be reproduced as shown in Figure 1.

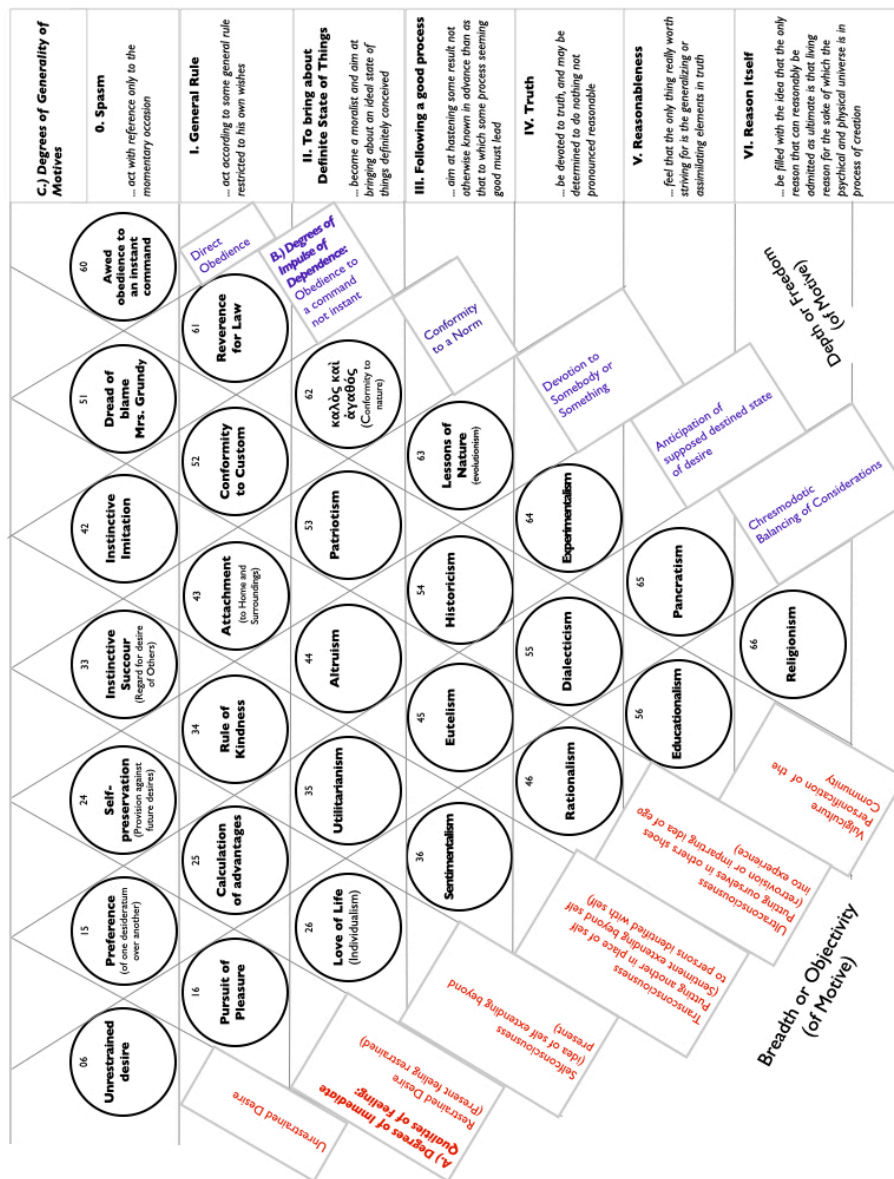


Figure 1

26 Unaware of Peirce's implicit reference to Wundt's use of the term "motive" in his *Ethik* as a faculty-psychological source of action, Liszka (2021, p. 213) sees Peirce at CP 1.585 as "correct[ing] (...) [a] mistake". But Peirce was simply disambiguating between his own meaning of the term and a widespread, Wundtian meaning.

It is to *this* classification that Peirce referred at CP 1.585 as “sufficiently complete and systematic” (R 1134:01, 1901) to be ready for publication. Moreover, he *explicitly* confirmed his commitment to its results in 1905 (CP 8.138 n.) and 1911 (EP 2:460) by citing the review, published in the *Popular Science Monthly* of January 1901 (EP 2:59, 1901).²⁷

In what follows, we focus on those aspects of the *organization* (III.1) and argumentative *use* (III.2) of this classification that are essential for substantiating our claim that Peirce’s classifications of ends represent the start of his work on (and his first articulation of the task of) *pure ethics*, i.e., of that progenitor of Esthetics and Ethics which “consists in the gradual development of a distinct recognition of a satisfactory aim” (CP 4.342, 1902) and studies “the *summum bonum* which forms the subject of pure ethics” (CP 1.575, 1901).

4.1 The basic organization of the diagram

Peirce’s diagram integrates the “list of ethical classes of motives” presented in the Pearson Review (EP 2:69-60, 1901) with the discursive (R 1434:021-23, 1900) and diagrammatic (R 1434:024-26, 1900) accounts of their interrelations in his drafts. There are terminological differences between the diagrams, the published review, and the list of motives in the drafts.²⁸ We can neither flag all these differences nor comment on them in any detail.

Peirce’s diagram represents each motive as being quantitatively determined by three categoriological “respects” (EP 2:60, 1901),²⁹ each of which is subdivided into seven grades. As we shall see, three laws of the logic of motivating ends express how in every motive the degree of each categorical respect is constituted by a quantitative relation obtaining between the degrees of the other two. The most fundamental features of the diagram become intuitively accessible if we start rotating the diagram.

Note that if we (i) rotate the diagram by 60° to the right and the motive “06 Unrestrained desire” becomes its apex, we obtain a *gradation that is in accordance with the degree of firstness of a motive*, so that the diagram represents a decrease of the “element of self-feeling” (ibid.) from each row of motives under the apex to the next. Accordingly, the motive “06” represents a motive that, in so far as elements of secondness and thirdness are virtually absent, instantiates *pure firstness*. The base line opposite to the apex of this triangle connecting the endpoints “66 Religionism” and “60 Awed Obedience” thus contains those seven classes of motivating ends with the highest degree of “Breadth or Objectivity” in which “the element of self-feeling” is consequently “reduced to a minimum” (ibid.).

Moreover, if we (ii) rotate the diagram by 60° to the left and the motive “60 Awed obedience to an instant command” becomes its apex, we will obtain a *gradation that is in accordance with the degree of secondness of a motive*, so that the diagram will represent a decrease of the “element of otherness” (ibid.) from each row of motives under the apex to the next. Accordingly, the motive “60” represents a motive that, in so far as the elements of firstness and thirdness are virtually absent from it, instantiates *pure secondness*. The base line opposite to the apex of this triangle connecting the endpoints “06 Unrestrained Desire” and “66 Religionism” thus contains those motivating ends with the highest degree of “Depth or Freedom” or autonomy in which “the element of otherness is reduced to a minimum” (ibid.).

If, however, we keep the diagram in its original position and the motive “66 Religionism” remains its inverted apex, we will obtain a *gradation that is in accordance with the degree of thirdness of a motive*, so that the diagram will represent a decrease of the “degree of generality” (ibid.) from each

27 The fact that Peirce later repeatedly acknowledged the results of his taxonomy in the Pearson review seems to escape Liszka (2021), who deals with the classifications Peirce produced in 1900 only in the closing chapter (LISZKA, 2021, p. 199-209) and in an appendix (LISZKA, 2021, p. 213-217). Accordingly, he claims that Peirce “never completed” the task of classifying motivating ends of action (LISZKA, 2021, p. 59; 199; 213).

28 On this see also Liszka (2021, p. 213-217), which reproduces the last and the penultimate versions of the diagram.

29 See Liszka (2021, p. 216-217).

row of motives under the apex to the next. Accordingly, the motive “66” represents a motive that, in so far as the elements of firstness and secondness are virtually absent from it, instantiates *pure thirdness*. The base line opposite to the inverted apex of this triangle connecting the endpoints “06 Unrestrained Desire” and “60 Awed obedience” thus contains those seven classes of motivating ends with the lowest degree of generality.

Let us now consider in more detail the three categoriological aspects (A – C) of motivating ends and their respective grades by studying the diagram in its original position.

First is (C) the “various degrees of generality of motives” (EP 2:59, 1901). This *degree of thirdness entering into a motivating end* is, firstly, numerically represented by the digit sum of its two digits (which sum is the same in each horizontal row and increases by the value “1” from row to row in direction of the apex) and, secondly, differentiated into seven stages, including a zero-stage (0) labelled “Spasm” (comprising every motive in the first row), five intermediary stages (I-V), and an absolute stage (VI), referred to as “Reason Itself” in an earlier version (R 1434:024, 1900; see Liszka (2021, p. 214)) and as “living reason” (EP 2:59, 1901) in the review.

This categoriological parameter of thirdness and its gradation (represented in the column on the right hand of *our* diagram³⁰) is only hinted at in Peirce’s final diagram. Here it is represented with the vertical sequence of terms labelling each row (“Spasm”, “General Rule” etc.). By adducing the characterization of grades of generality given in the review – “A man may act with reference only to the present occasion [...] etc.” (EP 2:59 f., 1901) – we thus offer an additional element to further contextualize the sometimes enigmatic labels of the rows.

Now, what does it mean to say that one motive – or a whole row of motives sharing the same degree of generality – is *more general* than another? As the labels of the grades of generality suggest, the criterion lies in the intersubjective generalizability of a motive, i.e., in *the extent to which a motivating end of action can be pursued by other agencies*. This is because the generality of each motive is determined by the sum of the *degree of absence* of the feeling-related moment of firstness (represented by the first digit) and the *degree of absence* of the coercive element of secondness (represented by the second digit). Accordingly, the most general end is that from which all selfishness of feeling and external compulsion have been eradicated. We might express this nexus with the following law of the logic of motivating ends:

Law of the Degree of Thirdness of a Motive as Determining its Singularity/Generality

The degree of thirdness qua degree of rationality or intersubjective generality of a motive ($3GEN_M$) is determined by the sum of its grade of firstness ($1QUAL_M$) and its grade of secondness ($2DEP_M$): $3GEN_M = 1QUAL_M + 2DEP_M$.³¹

In line with this law, we can furthermore observe a progressive abstraction from the first to the last grade of generality that concerns the circumstances under which a motivating end might become incarnated: we move from individual and local patterns of totally conditioned tokens of acts (“Spasm”), to rule-governed individual (“General Rule”) and technical cultural practices (“Following a good process”), to institutionalized and transgenerational pursuits (“Phanerotic Truth”, “Reasonableness”) incarnated in the praxis of cooperative communities and humanity at large. The final, absolute stage of pure thirdness is a motivating end that animates *whatever* may come into being and – in the guise of

30 In the “Chapter on Ethics” of the *Minute Logic*, Peirce accordingly says that he shall arrange his “list so as to commence with the most particular satisfactions and proceed step by step to the most general.” (CP 1.581, 1901, my emphasis). “But,” Peirce continues, “since there are in each grade several kinds of satisfactions”, he will “begin in each grade of generality with the most immediate and selfish and go on by steps to the most subservient” (ibid., emphases mine).

31 For the motive “53 Patriotism” we thus obtain the equation: $8_{GEN} = 5_{QUAL} + 3_{DEP}$, which tells us that the (generality of the) motive in question is characterized by combining a rather high degree of self-neglect and objectivity of motive with an average degree of autonomy.

the *Weltanschauung* of Religionism – requires an agent who is “filled with the idea that the only reason that can reasonably be admitted as ultimate is that living reason for the sake of which *the psychical and physical* universe is in process of creation” (EP 2:59, my emphasis). This final stage, therefore, requires an agent who is committed to the postulate of the entelechial formality of ends and is animated by an outlook, according to which “evolution is a moral process” (MURPHEY, 1961, p. 359). In Peirce’s words: “In proportion as the person practices a true ethics and is animated by the purpose behind Nature at large, in that proportion will it be possible for his reasonings to become scientifically logical” (L 75:12, 1902).

Second is (B) the “degree to which an impulse of dependence enters into them” (EP 2:60), i.e., *the degree of secondness entering into a motive*. This is represented by the second of the two-digit numbers assigned to each motive, where “0” represents the highest and “6” the lowest degree of an “impulse of dependence” or “element of otherness” (EP 2:60). If, however, we conceive of the gradation as being one of the “Depth or Freedom” (R 1434:025, 1900), or degree of lack of dependence of a motive, then “0” represents the lowest and “6” the highest degree.

What does it mean to say that one motive – or a whole diagonal row of motives having the same degree of otherness qua “impulse of dependence enter[ing] into them” (EP 2:60, 1901) – is *more dependent* or *externally determined* than another? A closer consideration of the seven grades of the element of otherness will provide a better understanding of what aspect of motivating ends is precisely captured under the title of a “degree to which an impulse of dependence enters into them” (ibid.), so that, conversely, the “Depth or Freedom of Motive” (R 1434:025) qua degree of autonomy gradually increases from one left-ascending diagonal to the next. If we consider examples of the kind of “impulse of dependence” (EP 2:60, 1901) to be found on the zero-stage of “Awed obedience to an instant command”, we immediately come to realize that the specific normativity of these impulses is found in their quasi-indexical “non-internalizability”. Accordingly, awed obedience to an instant command cannot possibly be brought about without there being a norm-authority that is numerically different from the norm-subject upon which it acts through determinate semeiotic acts of signaling, the force of which is rooted in an element of surprise that renders it impossible to internalize such commands as means of autonomous or self-controlled determination. Consequently, the kind of impulse acting upon us through the flashing of traffic-lights, the vibration of warning-signals, or the sudden yelling of commands is necessarily a virtually pure and highly disruptive secondness that cannot originate within ourselves. However, this element of secondness qua “non-internalizability” gradually diminishes as the norm-authority takes on, first, abstractly personalized traits in “Obedience not express” (with its two modes of typified conventionality [motive “51”] and reverential personification of the law [motive “61”]). Next, the decrease of the element of secondness qua “non-internalizability” appears in “Conformity to a Norm” qua “Adaptation of result of action to exemplar” (R 1434:024) in the imitation of situationally attractive models of action (motive “42”), the willful adherence to the customs of a community in determinate spheres of praxis (motive “52”), and the striving to conform to ideals of conduct embracing the totality of praxis (motive “62”). Finally, with “Devotion to Somebody or Something” the identification with the norm-authority takes center stage in the motives “33” to “63” and is then transcended by conceiving of the normativity of determinate states (“Anticipation of supposed destined state of desire”), paradigmatic civilizational decision-making procedures (“Chresmodotic Balancing of Considerations”) and, eventually, the evolutionary process of creation as a whole (“Religionism”). With this we reach that absolute stage on which the norm-authority is totally internalized in the conception of a *summum bonum*, the object of which is taken to be both the autonomous ground and the *télos* of whatever comes into being: “the idea that the only reason that can reasonably be admitted as ultimate is that living reason for the sake of which the psychical and physical universe is in process of creation” (EP 2:59, 1901).

Law of the Degree of Secondness of a Motive as Determining its Heteronomy/Autonomy

The degree of secondness qua degree of heteronomous dependence on or autonomous internalization of the norm-authority involved in a motive ($2DEP_M$) is determined by the difference between its grade of thirdness ($3GEN_M$) and its grade of firstness ($1QUAL_M$):
 $2DEP_M = 3GEN_M - 1QUAL_M$.³²

Third is (A) the “degree in which immediate qualities of feeling appear in them”, i.e., *the degree of firstness involved in a motive*. This is expressed by the first of the two-digit numbers assigned to every motivating end, where “6” represents the highest and “0” the lowest degree of the “Breadth or Objectivity [of Motive]” (R 1434:025), “element of self-feeling” (EP 2:60, 1901), or *firstness* (EP 2:60, 1901). If, however, we conceive of the gradation as being one of “Breadth or Objectivity” (R 1434:025, 1900), i.e., of degrees of the *absence of* the element of self-feeling from a motive, then “0” represents the lowest and “6” the highest degree.

The role played by the degree of firstness involved in a motive becomes particularly clear when we consider motives that share the same degree of secondness with their neighbors on left-ascending diagonals, yet differ in respect to their generality *because of* the difference in their degree of firstness. Thus the motives “42 Instinctive Imitation” (digit sum = 6), “52 Conformity to Custom” (digit sum = 7) and “62 καλὸς καὶ ἀγαθός” (digit sum = 8) share the same degree of dependence (as indicated by the second digit), but they differ in terms of the degree to which self-feeling is involved (indicated by the first digit), and that degree thus acts as the determining ground of their differing degrees of generality (as indicated by the digit sum). We might, therefore, say that these motives (being the three modes of the second stage of secondness entitled “Conformity to a Norm”) agree in terms of the emulative nature of their relation to the norm-authority that determines them, but that they differ in terms of their degree of firstness, i.e., in terms of the degree of the absence of self-feeling. Thus, what makes motive 62 a motive more general than motives 42 and 52 is their being determined by different degrees of firstness: there is *more* self-feeling involved in “Instinctive Imitation” (just doing what those do whom I love) than there is in “Conformity to Custom” (celebrating Christmas mainly to make the children happy) and, again, *more* self-feeling involved in “Conformity to Custom” than in pursuing an ideal of καλοκάγαθία by conforming to norms of physical and psychical excellence defined by an understanding of what our true nature is (living the life of virtue of a Cynic naturalist, eating raw meat, mocking those in power, and masturbating in the marketplace).³³

Now, what does it mean to say that *one motive involves immediate qualities of feeling to a lesser extent than another*? A close consideration of the seven grades of the element of firstness will help us understand what aspect of motivating ends is captured by the term “degree in which immediate qualities of feeling appear in them” (EP 2:60). Note that while the degrees of secondness are differentiated in accordance to the stages of a process of *progressive internalization* of the source of coercion into the agent, the inverse occurs in the case of the element of firstness, inasmuch as the seven “degree[s] in which immediate qualities of feeling appear” are differentiated in accordance to the stages of a process of *progressive externalization* of the element of immediate feeling into ever more collectivistic mentalities. We thus move from the absolute egotism of “06 Unrestrained Desire” as the degree of a supposedly pure immediacy of feeling to a first reflective distancing in the two kinds of “Restrained desire” (“15 Preference” and its habitualization in “16 Pursuit of Pleasure”). This movement from an implicit agent-

32 For the motive “53 Patriotism” we thus now obtain the equation $3_{DEP} = 8_{RAT} - 5_{QUAL}$, which tells us that the quite average degree of absence of secondness or autonomy of the motive in question is – its high objectivity notwithstanding – determined by its rather low degree of generality.

33 See Laertius, *Lives and Opinions*, Book VI, Live of Diogenes, Ch. 6, p. 229 (trying raw meat), p. 230 (mocking Alexander), p. 233 (“I wish I could rub my stomach in the same way, and so avoid hunger”).

mentality that is hypothetically absorbed in unrelated episodes of bliss (see CP 1.583, 1901) to an agent-mentality endowed with a definite conception of a continuous intentionality “according to some general rule restricted to [one’s] own wishes” (EP 2:59) next leads us to three modes of consciousness – “Self-consciousness” or “Idea of Self extending beyond present”; “Transconsciousness” or “Sentiment extending beyond self to persons identified with self”; and “Ultraconsciousness” qua “Retrovision” or “imparting idea of *ego* into experience” (R 1434:024, 1900)—before we eventually reach “Vulgiculture”, with its “Personification of the Community”, and “Religionism”, with its personification of God.

Law of the Degree of Firstness of a Motive as Determining its Selfishness/Altruism

The degree of firstness or subjectivity of a motive ($1QUAL_M$) is determined by the difference obtaining between its degree of thirdness ($3GEN_M$) and its degree of secondness ($2DEP_M$): $1QUAL_M = 3GEN_M - 2DEP_M$.

As a consequence of these considerations, we can identify three categoriological relations that Peirce took to be fundamental to understanding the constitution of human action and its motivating ends. In every action there is, first, a reference to a first person, i.e., a reference to the self-conception of the agent, which is anchored in feelings and acts as the ground on which all modes of identification – be it with oneself (“Self-consciousness”), with others (“Transconsciousness”), with their experience (“Ultraconsciousness”), with a community (“Personification”), or with creation as a whole (“Religionism”) – ultimately rest. Second, there is a reference to an otherness, be it a second person or a thing, i.e., to an entity other than the agent that requires adaptation and is the source of all normative coercion. As the diagram shows, each motive represented ought to be understood as the result of the combination of a degree and mode of self-feeling with a degree and mode of coercion coming from the second person or thing, from which combination a determinate generality of the motivating end, equally determined by both elements, results.

Now, as the purpose of Peirce’s diagram of motivating ends of action is clearly found in the categoriological construction of the *summum bonum*, i.e., in the “development of the ideal” (CP 4.243, 1902), this diagram ought to be read as an attempt to solve the problem that Peirce repeatedly described in the *Minute Logic* as the core task of pure ethics:

[I]t is true that pure ethics has been, and always must be, a theatre of discussion, for the reason that its study consists in the gradual development of a distinct recognition of a satisfactory aim. It is a science of subtleties, no doubt; but it is not logic, but the development of the ideal, which really creates and resolves the problems of ethics. (CP 4.243, 1902; see also CP 1.575–7, 1901)

4.2 The argumentative use of the classification

The Pearson review contains a sharp criticism of Pearson’s social-Darwinistic account of the *purpose of science* in the first chapter of his *Grammar of Science*. To refute Pearson’s conception of “the value of science” as lying in nothing but its capacity “to promote the welfare of human society, to increase social happiness, or to strengthen social stability” (EP 2:57, 1901), Peirce proceeded in three steps.

First, he showed “what [in view of the splendid success of science] has, in fact, moved such men [of science]” by giving a dense portrait of the genesis and nature of the mentality of the scientist as a person primarily animated by and attracted to the actualizing self-expression of “law, general truth, reason [...] in a cosmos and in intellects which reflect it” (EP 2:58, 1901).

After premising this identification of “the motive which effectually works in the man of science”, Peirce unfolded his classification of “ethical classes of motives” so as to “inquire which motive is the

more rational, the one just described or that which Professor Pearson recommends”, thus using his taxonomy as a “base [for] reflections upon the *acceptability as ultimate* of different kinds of human motives” (EP 2:59, 1901, my emphasis).

Third, Peirce inferred that “the motive that actually inspires the man of science” is “very near” to “the only ethically sound motive which is the most general one” (EP 2:60, 1901). By thus subsuming the case of the scientist under the rule the diagram gives, Peirce demonstrated that the man of science is actually animated by and committed to that vision of the supreme good that stands at the top of his taxonomy of motivating ends: scientific inquiry is a kind of *religionism* and, as such, is motivated by “the idea that the only reason that can reasonably be admitted as ultimate is that living reason for the sake of which the psychical and physical universe is in process of creation” (EP 2:59, 1901; see also CP 5.3-5, 1900).

Note that the “methodical ideal” (R 1429:013) endowed with an entelechial formality to be “equally capable of inward and of outward realization” (R 1429:013, 1900) – an ideal that we first encountered in the Thilly review – has now become a potentiality referred to as “living reason”, the actualization of which constitutes the purpose of “the psychical and physical universe”, i.e., the purpose of scientific semeiosis in particular *and* of the process of nature at large. Accordingly, as the argumentative use of our classification of ends consists in the articulation of those axiological-valuational and action-theoretical conditions that must be met in order to conceive of an indeterminate progress and growth of scientific inquiry, the Pearson review brings into view a fundamental motivation underlying the introduction of the pre-logical normative sciences in the months to come:

Ethics, as such, is extraneous to a Grammar of Science; but it is a serious fault in such a book to inculcate reasons for scientific research the acceptance of which must tend to lower the character of such research. Science is, upon the whole, at present in a very healthy condition. *It would not remain so if the motives of scientific men were lowered.* (EP 2:61, 1901, my emphasis).

This fundamental motivation consists in identifying the phenomenologically *possible* ethical foundations requisite for an unlimited progress of scientific semeiosis, without which the co-finality or (in Pape’s terms) “teleological homogeneity” (PAPE, 1993, p. 582) of the process of science and the process of nature would turn out to be inconceivable, and scientific inquiry would therefore be an activity *a priori* doomed to fail to succeed in reaching its aim: Truth.

Accordingly, the central function of the Normative Sciences will consist in providing an architectonic account of those subjective performative conditions of the pursuit of truth the fulfillment of which are necessary for the ultimate success of scientific inquiry. As Peirce would eventually confirm in *Reason’s Conscience* (1904), normative science is a science that “begins [...] by inquiring what the purpose shall be” – i.e., by determining the *summum bonum* – “and then out of the very considerations which have gone to determine the purpose [...] *proceeds to evolve the general conditions that must hold good, wherever the results of phenomenology hold, for the realization of the end*” (NEM 4:197, my emphasis; see also CP 8.239, 1904). As a consequence, “normative science [...] does not deal at all *with what actually is* but only *with what must necessarily be the case*” (NEM 4:198, my emphasis). Being architectonically situated “on the border between mathematics and positive science” (NEM 4:19, 1902), Normative Science thus proceeds mathematically to the extent that it draws deductive conclusions from hypothetical states. But those conclusions can only *coenoscopically, never* mathematically, be “*intended to conform* to positive truth of fact” (EP 2:198, 1903), i.e., be formulated with a constant view on common experience.³⁴ Its fundamental pre-logical question, therefore, is: Which performative

³⁴ Liszka’s neglect of the mathematical strand in Peirce’s conception of the Normative Sciences, which is of the utmost importance for understanding that their interest in and reference to norms is not that of synthetically norm-giving sciences but merely that of analytically norm-related sciences, seems to us to be at the roots of the differences between the understanding of Peircean Normative Science that is reconstructed in Liszka (2021) and the one that is adumbrated here.

– axiological and action-theoretical – conditions must be met, so as to be able to conceive of truth as the fully attainable end of thought?

Normative science is that science which considers any kind of excellence, and endeavors to formulate the conditions under which an object would possess that excellence, without undertaking to say whether given objects possess that excellence or not. [...] *Logic* is that branch of normative science which studies the conditions of truth, or that kind of excellence which may or may not belong to objects considered as representing real objects. (NEM 4:192, 1904).

While the supreme end in question here is the truth, the subjective performative conditions of the attainment of the end of thought are three. First, there is the postulate of an unlimited, quasi-immortal community of researchers, grounded in the religionism of persons of science, who act upon “that which makes progressive creation worth doing” (EP 2:58-59, 1901) by partaking in “the very being of law, general truth, reason [...] that is] expressing itself in a cosmos and in intellects which reflect it” (EP 2:58), thereby making room for a historically potentially unlimited perfecting of the power of reasoning of the community. Second, there is the postulate of the non-delimitation of the growth of reasonableness to any ontological substrate, the possibility of which we found to be grounded in that specific creative power of an entelechial formality to be “developing itself in thoughts and things generally” (*The Nation*, June 21, 1900, p. 481; CN 2:250). Thirdly, there is the combination of both conditions, so as to postulate the intelligibility of a world in which “the esthetic quality toward which the agent’s free development tends” (EP 2:203, 1903) – by “forming an ideal of conduct[...] that] make[s] our lives artistic creations embodying our ideals” (1900)³⁵ – “and that of the ultimate action of experience upon him are parts of one esthetic total” (EP 2:203, 1903).

Whether there really is anything like an unlimited community of researchers or a property endowing ends with the capacity of perfecting themselves in any substrate, is not a question relating to a subjective performative condition. It is thus not to be answered by a science that “does not concern itself in the least with what actually takes place in the universe” (CP 8.239, 1904). Rather, it is an objective “metaphysical question which does not fall within the scope of normative science to answer” (ibid.). This is how far into its territory our clue to the genesis of the normative sciences can guide us, once we start to carefully tie its discourse back to its philological sources, systematic contexts, and philosophical ambitions.

Abbreviations

In citations from and references to Kant’s works the following abbreviations are used:

AA *Kants gesammelte Schriften*, followed by volume and page number; 28 vols., ed. by *Königlich Preußische Akademie der Wissenschaften*, Berlin 1910 ff., from v. 1-22; ed. by *Deutsche Akademie der Wissenschaften zu Berlin*, Berlin 1955 ff., from v. 23-28.

In citations from and references to Peirce’s works the following abbreviations are used:

CN *Contributions to The Nation*, followed by volume number and paragraph number; vols. 1-4, ed. K. Ketner and J. Cook. Lubbock, 1975-1987.

CP *The Collected Papers of Charles Sanders Peirce*, followed by volume number and paragraph number; vols. 1-6, ed. C. Hartshorne and P. Weiss, vols. 7-8 ed. A. Burks. Cambridge, MA: Belknap Press of Harvard University Press, 1931-1958.

35 *The Bookman. A Literary Journal*, v. XI, July 1900, p. 490; this quotation comes from a second review of Thilly’s *Introduction to Ethics* which Peirce published under the pseudonym “Jordan Brown”.

EP *The Essential Peirce*, followed by volume number and page number; v. 1, ed. N. Houser and C. Kloesel, v. 2, ed. the Peirce Edition Project. Bloomington and Indianapolis: Indiana University Press, 1992-1998.

HP *Historical Perspectives on Peirce's Logic of Science*, followed by volume number and page number; 2 vols. edited by C. Eisele, Berlin 1985.

NEM *The New Elements of Mathematics*, followed by volume number and page number; vols. 1-4, ed. by C. Eisele, The Hague, 1976.

R Manuscripts of Charles S. Peirce in the Houghton Library of Harvard University, followed by manuscript number and page number, as identified in R. Robin, *Annotated Catalogue of the Papers of Charles S. Peirce*, Amherst: University of Massachusetts Press, 1967; and in R. Robin, "The Peirce Papers: A Supplementary Catalogue", *Transactions of the Charles S. Peirce Society* 7 (1), 37-57, 1971 Page numbers prefixed with a zero do not refer to Peirce's pagination but to the numbers stamped on each page of the microfilm edition of the Harvard manuscripts.

RLT *Reasoning and the Logic of Things. The Cambridge Conferences Lectures of 1898*, ed. by Ketner, K. L., Cambridge/Mass.

W *Writings of Charles S. Peirce. A Chronological Edition*, followed by volume number and page number; vols. 1-6 and 8, ed. M. Fisch, C. Kloesel, E. Moore et al. Bloomington: Indiana University Press, 1982-2010.

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