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2 42 Logic, Ethics and the Ethics of Logic

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5 ... the main reason logic is unsettled is that thirteen different opinions are current as to the
6 true aim of the science. Now this is not a logical difficulty, but an ethical difficulty; for ethics
7 is the science of aims. Secondly, it is true that ethics has been, and always must be, a
8 theatre of discussion for the reason that its study consists in the gradual development of a
9 distinct recognition of a satisfactory aim. It is a science of subtleties, no doubt; but it is not
10 logic, but the development of the ideal, which really creates and resolves the problems
11 of ethics. (MS 431 with corrections from MS 429, 1902).

12 Peirce wrote this in 1902 as part of his “Minute Logic”, a major book project
13 from his later, officially unemployed, years. The editors of EPII note that the
14 book was so named “to reflect the minute thoroughness with which [Peirce]
15 planned to examine every relevant problem” (xiv), and that within a year it ran
16 to hundreds of pages. This vast project gave Peirce the opportunity to think in
17 intricate detail about the architectonic structure of his thought. This groundwork
18 bore much fruit: notably in Peirce’s 1902 grant application to the Carnegie Insti-
19 tution, still one of the best guides to the way Peirce’s mature thought would
20 have unfolded had he been given access to resources commensurate with his
21 abilities, and the 1903 Harvard lectures on pragmatism where (despite struggles
22 with James over scope and purpose) he managed to distil into seven evening
23 lectures a new philosophical system of brilliance and power, with many outlines
24 previously unknown in the history of philosophy.

25 This remarkable quote encapsulates an enormous amount of Peirce’s phil-
26 osophy, and offers a challenge to contemporary mainstream philosophy with
27 respect to the codifiability of its subject matter on a number of levels, of which
28 I will here discuss three: Peirce’s views on *pragmatism*, *ethics* and *logic*. The last
29 two are particularly worth discussing in this context as a new relationship
30 between ethics and logic was first worked out properly by Peirce around this
31 time. Thus in the “Minute Logic” he writes that he has only recently come to
32 realize that logic is only the third of the normative sciences, being “preceded
33 by Esthetics and Ethics” (CP 2.197). He also notes that his understanding of the
34 nature of ethics has shifted – although for many years he “doubted very much
35 whether it was anything more than a practical science”, he is now beginning to
36 understand the purpose of ethical *theory*, and to place it in “all the intimacy of
37 its relation with Logic” (CP 2.198). (The next year, in his 5th Harvard lecture he
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1 states firmly, “Normative science is not a skill, nor is it an investigation con-
 2 ducted with a view to the production of skill” (CP 5.125)). He also clarifies that
 3 the scientific purpose of Ethics is not pronouncing things to be right and wrong,
 4 but understanding what rightness and wrongness *are*:

5 We are too apt to define ethics to ourselves as the science of right and wrong. That cannot
 6 be correct, for the reason that right and wrong are ethical conceptions which it is the busi-
 7 ness of that science to develop and to justify. A science cannot have for its fundamental
 8 problem to distribute objects among categories of its own creation. (CP 2.198).
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10 Thus, for example, to define physics as, say, ‘the science which measures gravi-
 11 tational forces’ would foreclose on physicists being able to develop new and
 12 more sophisticated conceptions of that subject matter, and it would also not
 13 mean a great deal without a theory of what gravitational forces *consist in*, which
 14 can only be given within physics.

15 As is well known, Peirce’s final architectonic descended as follows: mathe-
 16 matics, phenomenology, aesthetics, ethics, logic, and on to the special sciences,
 17 starting with metaphysics, with each level drawing ‘principles’ from above and
 18 ‘data’ from below. At the same time pragmatism unites all levels by clarifying in
 19 general what it is for a sign to mean something. In each of our three philosophical
 20 areas: pragmatism, ethics and logic, as noted, our quote raises a certain basic
 21 issue concerning the ‘codifiability of knowledge’. Can all knowledge be placed
 22 in propositional form and stated explicitly? In recent times this issue has also
 23 been broached under headings such as “representationalism” (see for instance
 24 (Brandom 2011)), and “knowledge how vs. knowledge that” (Williamson and
 25 Stanley 2001). We will see how in all three philosophical areas Peirce is able to
 26 resist commitment to a simplistic codifiability via his exceptionally rich and
 27 nuanced account of the functioning of signs.

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 29 **i) Pragmatism.** In the quote Peirce distinguishes between ‘logic’ and the devel-
 30 opment of an ideal. Much subtlety in Peirce’s account of signification derives
 31 from its stipulation that meaningful signs are so by virtue not just of an *object* –
 32 an entity to which they refer – but also an *interpretant* – a *usage* of that sign by
 33 a community in negotiating the world. Signs must affect our practice in order to
 34 signify anything at all, and in his choice to keep the interpretant independent of
 35 and irreducible to the object, Peirce signals that the usage of our signs in princi-
 36 ple outruns that to which they may be said to refer in any given case and at any
 37 given time. Peirce does in places suggest that at some far future point interpre-
 38 tant and object will “crystallise” in the *summum bonum*, but notes that even if
 39 one were to reach that ideal terminus, all thought would there cease (CP 6.33).
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1 Thus in a 1908 letter to Victoria Lady Welby, Peirce wrote, “I define a Sign
 2 as anything which is so determined by something else, called its Object, and so
 3 determines an effect upon a person, which effect I call its Interpretant, that the
 4 latter is thereby mediately determined by the former”. He immediately added,
 5 “My insertion of ‘upon a person’ is a sop to Cerberus, because I despair of
 6 making my own broader conception understood” (SS: 80–81). What is the true
 7 upshot (or ‘final interpretant’) of a sign within the context of pragmatism is a
 8 delicate matter to state strictly. Around 1902 Peirce was seeking to reemphasise
 9 this true upshot – from sign-users’ *practice*, to some degree back to their
 10 *referents* – as a corrective against then-current readings of pragmatism (e.g.
 11 from James and his students) which to his mind overemphasised the practical.
 12 Thus in his 1901 entry on ‘pragmatism’ in Baldwin’s Dictionary of Philosophy
 13 and Psychology, he wrote:

14 If it be admitted . . . that action wants an end, and that that end must be something of a
 15 general description, then the spirit of the maxim itself, which is that we must look to the
 16 upshot of our concepts in order to rightly apprehend them, would direct us towards some-
 17 thing different from practical facts, namely to general ideas, as the true interpreters of our
 18 thought. (CP 5.3).

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 20 In 1905 in “What Pragmatism Is”, he spoke even more strongly on the matter:

21 . . . if pragmaticism really made Doing to be the Be-all and the End-all of life, that would be
 22 its death. For to say that we live for the mere sake of action, as action, regardless of the
 23 thought it carries out, would be to say there is no such thing as rational purport. (CP 5.429).

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 25 **ii) Ethics.** We noted above that Peirce draws a distinction between logic and
 26 “the development of the ideal”. In the same sentence he argues that only the
 27 latter “really creates and resolves the problems of ethics”. It might seem that
 28 here he is stating that practice rather than theory is paramount in working out
 29 the discipline of ethics. However the relationship between theory and practice in
 30 ethics is a notoriously thorny issue for Peirce. It is well-known that in the first of
 31 his 1898 Harvard lectures, “Philosophy and the Conduct of Life”, Peirce made
 32 strong claims apparently suggesting that ethical insight should spring from
 33 instinct alone, since our reasoning is too fallible to bear the weight of real-life
 34 ethical decision-making, giving the following somewhat searing example:

35 [the man] who would precipitately change his code of morals at the dictate of a philosophy
 36 of ethics – who would, let us say, hastily practice incest – is a man whom we should con-
 37 sider unwise. The regnant system of sexual rules is an instinctive or sentimental induction
 38 summarizing the experience of all our race. That it is abstractly and absolutely infallible
 39 we do not pretend; but that it is practically infallible for the individual . . . that we do
 40 maintain. (CP 1.633).

1 The overall moral of this lecture was to recommend sentimentalism over ‘ratio-
 2 nalism’ in ethics, and to claim that ethical theory develops solely by “slow per-
 3 colation” of rational ideas into instinct over the ages, rather than by conscious
 4 or explicit inquiry. However by 1902 Peirce seems to have softened on the desir-
 5 ability of conscious ethical theorising.

6 The codifiability of ethics is generally so taken for granted in contemporary
 7 mainstream philosophy that it is not thought even to need arguing for. Thus for
 8 instance *The Stanford Encyclopedia of Philosophy* defines the current ‘top two’
 9 ethical theories as follows: “... deontology is one of those kinds of normative
 10 theories regarding which choices are morally required, forbidden, or permitted.
 11 In other words, deontology falls within the domain of moral theories that guide
 12 and assess our choices of what we ought to do ... And within that domain,
 13 deontologists ... stand in opposition to consequentialists”. (Alexander and
 14 Moore 2012, see also Walter Sinnott-Armstrong 2011). There is, however, a valiant
 15 rear-guard critique of codifiability from the field’s current ‘third party’: virtue
 16 ethics. Thus Rosalind Hursthouse (nicely) summarises the codifiability claim as
 17 follows:

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 19 ... the task of ethical theory is “to come up with a code consisting of universal rules or
 20 principles ... which would have two significant features: (a) the rule(s) would amount to
 21 a decision procedure for determining what the right action was in any particular case; (b)
 22 the rule(s) would be stated in such terms that any non-virtuous person could understand
 23 and apply it (them) correctly. (Hursthouse 2012).

24 Hursthouse suggests that the problem with this is that any application of such
 25 a code purely on its own terms generally has awful results (as Peirce predicted
 26 in 1898), and that this in fact happened with the growth of professionalised
 27 applied ethics through the 1960s and 70s, where:

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 29 [m]ore and more utilitarians and deontologists found themselves agreed on their general
 30 rules but on opposite sides of the controversial moral issues in contemporary discussion.
 31 It came to be recognised that moral sensitivity, perception, imagination, and judgement
 32 informed by experience – phronesis in short – is needed to apply rules or principles cor-
 33 rectly. (Hursthouse 2012).

34 However many consequentialists and deontologists – undaunted by this critique –
 35 currently dismiss virtue ethics for not being “action-guiding” (i.e. codifiable) (e.g.
 36 Das 2003), while other virtue ethicists endeavour to demonstrate that their view
 37 is action-guiding (van Zyl 2009; Swanton 2001).²

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 39 ² It is also worth mentioning here that contemporary critique of ethical codifiability is also
 40 coming from moral particularists such as Jonathan Dancy.

1 Peirce's discussion of ethics places this debate in a broader context which
 2 arguably points the way towards resolution. Firstly, as already noted, Peirce
 3 suggests that ethics should not be understood as a discipline whose role is to
 4 (as the *Stanford Encyclopedia* put it) "assess and guide our choices" as right or
 5 wrong since (as we saw Peirce put it) "these concepts are not prior to the dis-
 6 cipline of ethics but emerge from it". In other words, before making definitive
 7 pronouncements concerning *which* acts are good and bad one needs to answer
 8 the question of *what* goodness and badness are, and Peirce suggests that the
 9 latter question is so deep as to have been barely broached by philosophy to
 10 his day. (In this regard he notes, interestingly, that the normative character of
 11 Ethics, far from being provided by the practical application of Ethics, "may
 12 equally have its origin in the circumstance that the science which presents it is
 13 so very abstract, so alien to any experiential lineage, that ideals alone, in place
 14 of positive facts of experience, can be its proper objects" (CP 2.46). In Lecture 6,
 15 Peirce precisely offers consequentialism (or 'vulgar utilitarianism') as an example
 16 of the problems caused by rushing to answer the former question at the expense
 17 of the latter. He claims that such utilitarianism is unable to explain *why* its pro-
 18 nouncements concerning right and wrong should be considered true:

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 20 ... [the utilitarian's] fault does not lie in his pressing too much the question of what would
 21 be the good of this or that. On the contrary, his fault is that he never presses the question
 22 half far enough, or rather he never really raises the question at all. He simply rests in his
 23 present desires as if desire were beyond all dialectic. He wants, perhaps, to go to heaven.
 24 But he forgets to ask what would be the good of his going to heaven. He would be happy
 there, he thinks. But that is a mere word. It is no real answer to the question. (CP 5.158).

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 26 Secondly, Peirce's pragmatism shows how codifiable theory and uncodifiable
 27 practice can work together *over time*, serving as different faces of the same
 28 semiotic coin, since "our logically controlled thoughts compose a small part of
 29 the mind, the mere blossom of a vast complexus which we may call the instinc-
 30 tive mind" (CP 5.212). Thus, the never-fully-codifiable acting of individuals in
 31 situations which lead to open-ended sets of experiences and feelings gives ethical
 32 concepts meaning and a spur to future development in ethical inquiry. Mean-
 33 while, however, the codification of ethical theory greatly strengthens and organises
 34 that inquiry. Rather than opposing positions of 'representationalism' and 'anti-
 35 representationalism', then, we have necessary complements in an integrated
 36 process which we must hope (like the whist-player who does not *know* that
 37 player card distribution allows tricks to be saved, but must *hope* that it does in
 38 order to have any chance of winning (CP 2.113)) over the long-run arcs towards
 39 truth. This temporal-evolutionary dimension to theorising which is opened up

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1 by Peirce's theory of truth is a strength today arguably largely unappreciated
2 outside of Peirce scholarship.

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4 **iii) Logic.** In the opening paragraphs of the “Minute Logic”, Peirce announces
5 that logic is “the theory of the conditions which determine reasonings to be
6 secure” (CP 2.1). This reveals an understanding of the discipline considerably
7 broader than that generally found today. In particular, it does not just embrace
8 formal logic, but also philosophy of science, epistemology, and theory of cogni-
9 tion. As Moore helpfully summarises the matter in its relationship to ethics,
10 “logic is concerned with the criticism of a certain kind of conduct (namely rea-
11 soning)” (Moore 2010: 23).

12 In the “Minute Logic” Peirce not only places the discipline of logic within
13 a wider architectonic but also sets out a systematic account of its different
14 branches, and clarifies its purpose. The “thirteen different opinions . . . as to the
15 true aim of the science” cited in the quote are no mere figure of speech. In the
16 section published in CP 2.18–78 (entitled there “Different Methods in Logic”) Peirce
17 considers in turn the desirability of basing logical principles upon: i) a certain
18 logical ‘feeling’, ii) an individual experience, iii) the inner light of
19 reason, iv) metaphysics, v) the results of scientific psychology, vi) the data of
20 psychology, vii) a basic science underlying all sciences, which the Germans call
21 *Wissenschaftslehre*, and to which nowadays the term ‘epistemology’ arguably at
22 least approaches, viii) a kind of ordinary language philosophy which studies
23 grammatical structures, ix) what will tend towards the stability of society, x)
24 church authority, xi) the history of science, xii) everyday experience, and finally,
25 xiii) the same source as mathematical truth, which “. . . is derived from observa-
26 tion of creations of our own visual imagination, which we may set down on
27 paper in form of diagrams”.

28 Peirce sees the thirteenth answer as the right one, and he goes on to chart
29 the stages he sees as required to develop it. First he outlines his philosophical
30 categories, here termed ‘originality’, ‘obsistence’ and ‘transuasion’. These are
31 used to derive, respectively, the concepts of sign, object and interpretant, then
32 the trichotomous distinction between kinds of sign: icon, index and symbol.
33 Following this, Peirce draws a further functional distinction between sign-types:
34 term, proposition and argument. Having derived the concept of an argument, he
35 distinguishes the three argument forms: abduction, deduction, induction, and
36 argues that there are only three. The question of the validity of induction leads
37 to probability theory, which leads on to the logic of the natural sciences. In the
38 1903 Harvard lectures this outline is considerably more compressed and Peirce
39 bemoans the fact that he can offer no real arguments, but merely state some of
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1 the chief conclusions to which he has been led. However the same essential
 2 stages are visible, although he also emphasises the founding of logic in a direct
 3 perception of Thirdness which blurs the line between structured inference and
 4 felt “continuous process” (CP 5.181) in the way that a set of drawn circles can
 5 be seen *as* a stone wall and then as a mere set of drawn circles again, and there
 6 is no clear division between the two seeings, which he was newly struck by.

7 In this mature Peircean program for the development of logic at least two
 8 ethical dimensions are worth noting. Firstly, it follows from the role of the ever-
 9 evolving interpretant in sign-development that logic is essentially a social enter-
 10 prise directed at a future goal that no-one can enjoy individually. But Peirce was
 11 saying this sort of thing from the start of his career (e.g. in “The Fixation of
 12 Belief”). What is arguably new in this 1902–3 period is an emphasis on the fact
 13 that logic rests on a dyadic distinction between truth and falsity, and that this is
 14 a special case of the dyadic distinction between rightness and wrongness found
 15 in ethics. Moreover, the key to keeping the two poles separate – in ethical behav-
 16 iour, and thus also in logic – is *self-control*. These insights are worked out in
 17 Peirce’s criticisms of Dewey’s volume *Studies in Logical Theory*, in a letter written
 18 in 1905, where he writes, “I find the whole volume penetrated with this spirit of
 19 intellectual licentiousness, that does not see that anything is so very false ...”,
 20 and:

21 Chicago hasn’t the reputation of being a moral place; but I should think that the effect of
 22 living there ... would be to make you feel all the more the necessity for Dyadic distinc-
 23 tions, – Right and Wrong, Truth and Falsity. These are only to be kept up by self control.
 24 Now just as Moral Conduct is Self-controlled conduct so Logical Thought is Moral, or Self-
 25 controlled, thought. (CP 8.240–1).

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 27 **iv) The development of the ideal.** Bringing together these considerations con-
 28 cerning ethics and logic, we now consider the nature of the development of the
 29 (logical) ideal. What would such an enterprise actually consist in? We can now
 30 see that it must consist in a community of inquiry not merely theorizing about or
 31 codifying its aim of truth, but actively *practicing* the pursuit of it, communally,
 32 exercising self-control to avoid spending the community of inquiry’s resources
 33 on activities that are not conducive to that pursuit. Insofar as such practices
 34 succeed they will embody (if only in some small way) the growth of *concrete*
 35 reasonableness which Peirce identified in his later work as the *summum bonum*
 36 incarnate.

37 Given that, one might speculate in a critical vein on current institutional
 38 arrangements in academia. There has arguably been a significant shift in recent
 39 years to exert pressure on professional inquirers to spend as much of their work
 40 life as possible producing ‘research outputs’ (including, even, research outputs

1 about truth), to the extent that many academics now lack the time to perform
2 other community-building but output-free (uncodified) activities, such as read-
3 ing others' work, and training and supporting the young. Insofar as this is the
4 case, from a Peircean perspective this 'logical ideal' may be seen as unethical.
5 What would it mean if we really loved the logic in each other?

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8 **Acknowledgements**

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10 In the writing of this piece I am indebted to extensive conversations about
11 Peirce's ethics of inquiry with Joshua Black.

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