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Pragmatic clarifications and dispositions in Peirce's *How to Make our Ideas Clear*

Esclarecimentos e disposições pragmáticas no Como tornar nossas ideias claras *de Peirce*

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Abstract: The "proof" of pragmatism, and, in general, the idea that the relevance of the pragmatist maxim had to be "proved", is a vexed question. One should be cautious before considering it. Christopher Hookway has devoted a book to this very question and the arguments often involve the consideration of minute details in Peirce's late writings, well beyond the scope of the present paper. I will content myself, here, with a puzzle that comes before, logically and chronologically: scholars have long taken for granted that Peirce *applied*, within a new logical and metaphysical context, Bain's doctrine that a belief was a "preparedness to act" and that this *application* provided the core of Peirce's first pragmatism. I think that even in the first texts, that is not exactly true, and contrariwise to what is often held, dispositions to act do not play such an obvious role in the *Illustrations of the Logic of Science*. To put it in a nutshell, it is not clear whether Peirce's examples were actually, at that time, *pragmatic* examples. The first section of this paper provides a tentative roadmap to assess the sundry dimensions of Peirce's Pragmatism in the 1870s, the second deals with the alleged role of dispositionalism in *How to Make our Ideas Clear* (hereinafter referred to as HMIC), the third one provides some contextual elements that might account for the "outburst" of dispositionalism in 1878.

Keywords: Dispositions. Inquiry. Belief. Reality. Pragmatism (Proof of). Peirce. Helmholtz. Clifford.

Resumo: *A "prova" do pragmatismo e, em geral, a ideia que a relevância da máxima pragmatista tinha que ser "provada", é uma questão controversa. Devemos ter cautela antes de considerá-la. Christopher Hookway dedicou um livro a essa mesmíssima questão e os argumentos, frequentemente, envolvem a consideração de ínfimos detalhes dos escritos tardios de Peirce, bem além do âmbito deste trabalho. Contentar-me-ei aqui com um enigma, lógica e cronologicamente precedente: acadêmicos assumem, há muito tempo, que Peirce* aplicou*, em um novo contexto lógico e metafísico, a doutrina de Bain de que uma crença era uma "prontidão para agir" e que essa* aplicação *forneceu o cerne do primeiro pragmatismo de Peirce. Penso que mesmo nos primeiros textos, isto não é bem assim e, contrariamente ao*

1 A first version of this paper was given at the *First European Pragmatism Conference*, in Rome, September 2012.

que é frequentemente considerado, disposições à ação não desempenham um papel tão óbvio nas Ilustrações da Lógica da Ciência. *Em suma, não está claro se os exemplos de Peirce foram, na época, exemplos* pragmáticos. *A primeira seção deste trabalho apresenta um roteiro preliminar para aferir as diversas dimensões do pragmatismo de Peirce na década de 1870; a segunda aborda o suposto papel do disposicionalismo em* Como tornar nossas ideias claras *(doravante designado como HMIC); a terceira apresenta algums elementos contextuais que podem explicar o "surto" de disposicionalismo em 1878.*

Palavras-chave: *Disposições. Investigação. Crença. Realidade. Pragmatismo* (*prova do*). *Peirce. Helmholtz. Clifford.*

Introduction

One of the well-known puzzles in Peirce scholarship pertains to the relationship between the six papers found in the *Illustrations of the Logic of Science* published in the *Popular Science Monthly* in 1877 and 1878 (W 3:242-337). Is Peirce's view of the scientific method, offered in the first paper, applied in the last four papers on probability, induction and hypothesis? Will the "scientific method" really help securing scientific beliefs or will it indefinitely undermine scientific consensus? One prominent question concerns the articulation of *Fixation of Belief* and *How to Make our Ideas Clear*, that is to say between the theory of inquiry and the pragmatism maxim. The fact that there was a conceptual problem here, even to Peirce's eyes, is evidenced by his numerous later attempts to provide a "proof" of pragmatism[2] and to unite the two first *Illustrations* in a single paper.

The "proof" of pragmatism, and, in general, the idea that the relevance of the pragmatist maxim had to be "proved", is a vexed question. One should be cautious before considering it. Christopher Hookway has devoted a book to this very question and the arguments often involve the consideration of minute details in Peirce's late writings,[3] well beyond the scope of the present paper. I will content myself, here, with a puzzle that comes before, logically and chronologically: scholars have long taken for granted that Peirce *applied*, within a new logical and metaphysical context, Bain's doctrine that a belief was a "preparedness to act" and that this *application* provided the core of Peirce's first pragmatism.[4] I think that even in the first texts, that is not

2 Based on the categories, on the normative sciences, on semeiotics, on the graphs…

3 The question I'll deal with here is related to the attempt to make sense of the notion of belief Peirce entertained in the seventies. A fuller analysis would have to take into account at least three groups of writings: (1) the bulk of MSS written in the early 1870s (formerly referred to as the "Logic of 1873"); (2) the second *Illustration of the Logic of science*, which has no clear-cut predecessor in the MSS, and which builds much much more on the dispositional aspect of beliefs than the first one; (3) the last four *Illustrations*, where other important patterns are tackled. I'll deal here only with the two first groups.

4 FISCH, 1954, in the classic paper on this question, made the point that Saint John Green already "applied" Bain, so that he might have a claim on the title of "grandfather" of Pragmatism.

exactly true, and contrariwise to what is often held, dispositions to act do not play such an obvious role in the *Illustrations of the Logic of Science*. To put it in a nutshell, it is not clear whether Peirce's examples were actually, at that time, *pragmatic* examples.

The first section of this paper provides a tentative roadmap to assess the sundry dimensions of Peirce's Pragmatism in the 1870s, the second deals with the alleged role of dispositionalism in *How to Make our Ideas Clear* (hereinafter referred to as HMIC), the third one provides some contextual elements that might account for the "outburst" of dispositionalism in 1878.

1 Three claims

Oddly enough, the idea of pragmatism itself proved to be very confusing, and this was so for a long time. Seventy years after Lovejoy's famous paper on the "thirteenth" pragmatisms,[5] it took nearly fifteen years for Rorty and Putnam to decide what their main differences over pragmatism actually were.[6] In order to counter this confusion, some scholars have provided a list of assumptions (Wiener,[7] Thayer,[8] and Shusterman[9]), some might even try a definition. I shall limit myself here to delineating three distinctively pragmatist claims, which can be endorsed jointly or independently, and which result in very different kinds of pragmatism. This will help track some of these claims in Peirce's *Illustrations* in the next section. This list might also be helpful when dealing with other pragmatists.

1.1 The basic claims

Some confusion arises from the fact that "pragmatism" is often used to refer to at least three strands of Peirce's philosophy, all present in his early writings (as well as in James or, later, in Dewey), so it is often quite difficult to know what exactly Peirce is trying to prove.

1. **Inquiry**. First, pragmatism would refer to the idea that, if there are several different ways of settling beliefs, they have a minimal *homogeneity*. To use Peircean terms, if there was a radical difference, regarding their objects, between the "fourth mode" of fixation, the scientific method, and the three others, there would be no pragmatism at all in the first sense. Actually, the *Fixation of Belief* (hereinafter referred to as FB) deals with *four* methods of settling beliefs, not three methods for fixing "practical beliefs," and one last method specific to science and, say, theoretical beliefs. Some later pragmatists have claimed that inquiry is a general pattern of existence, rooted in the way we face the uneasiness of concrete doubt, or again, in Deweyan terms, in a discrepancy in the situation. One needs to endorse a

5 "The Thirteen Pragmatisms"(1908), found in LOVEJOY, 1963.

6 According to Joseph Margolis's narrative, see MARGOLIS, 2002.

7 WIENER, 1973.

8 THAYER, 1968.

9 SHUSTERMAN, 2010.

version of this argument in order to qualify as a "pragmatist" regarding the sciences or inquiry in general, and that is certainly what most people have in mind when they use the term. A good point can be made, with the help of Peirce's1898 lectures,[10] that he conceived growing doubts about that first claim.[11] However, the standard view of pragmatism is that his early views exploded abstract approaches to theories and replaced them with the dynamics of belief-fixation.[12] Let's call this first claim *epistemological*.

2. **Dispositions**. A second pragmatist assumption would be that beliefs, and perhaps other products of the mind as well, could be construed as *dispositions* to act.[13] That would be the Bainian approach,[14] in reference to the Scottish psychologist Alexander Bain. If one is not a dispositionalist, chances are that one still considers beliefs as purely intellectual episodes in the life of the mind. A good question to ask to the would-be dispositionalist is whether she admits a sharp distinction between practical and theoretical beliefs. And, in case there are such purely theoretical beliefs, whether they involve a distinct kind of practice or not. Are there dispositional beliefs in the fields of mathematics, for example? Are there special layers of conduct involved, when we draw a graph or when we solve a problem? Are there mathematical "gestures"[15] even in the remotest parts of the gamma-graphs? This second claim involves a *philosophy of mind* and also a *philosophy of action*.

3. **Meanings**. Thirdly, one might hold that reference to "practical bearings" can be helpful to elucidate the meanings of the objects of our thoughts, whether we have to dismiss sheer nonsense, spurious homonyms or, on the contrary, ascertain non-obvious synonyms. That third insight is encapsulated in the Pragmatist Maxim:

   It appears, then, that the rule for attaining the third grade of clearness of apprehension is as follows: "Consider what effects, that might conceivably

10 It is the standard view also that James was the main target of these lectures. I have claimed that Royce is another, see GIREL, 2011.

11 For an interesting reading that argues that there is no "tension" between 1878 and 1898, see MIGOTTI, 2005; contra HOOKWAY, 2000.

12 In addition, it is often overlooked that Peirce's fourth method is the "scientific method", not only the "method of the sciences". Peirce sees very well that you can be a scientist but settle at least some of your beliefs with the method of tenacity or authority (just think of his enemy Newcomb), or that you can be a detective or an historian and settle your beliefs with the scientific method (that is, if you work under the presupposition of reality and think that, if your question is correctly framed, you can reasonably expect a convergence among competent inquirers).

13 There might be some interesting differences between "dispositions" and "capacities", CHAUVIRÉ, 2002.

14 FISCH, 1954.

15 MADDALENA, 2015.

> have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object."[16]

We have here two interesting questions I have tried to address elsewhere. One can ask whether the pragmatist maxim applies to each and every kind of conception (I have proposed to call that the "range" of the maxim[17]). One can also ask whether it elucidates everything important in the object of that conception (I have proposed to call that the "comprehensiveness" of the maxim[18]). This would be a *semantical*, or, at the very least, a *methodological* claim.

1.2 Weak and strong versions

This first division, of course, does not tell the whole story, because one can endorse a strong *or* a weak version of each and every one of these claims.

One can argue that there is no substantial difference between science and other matters, and this would be a strong version of the first claim, or one can argue, without going so far, that there is no sharp dichotomy between facts and values, and that there are norms in science *as well as* in other practical matters, and certainly transversal norms (think of Putnam's examples: "simplicity", "elegance", (Putnam, 2002)).

Secondly, one can either endorse a strong dispositionalist account of mind, by assuming that beliefs are only psychological aspects of deeper dispositions, verbal or not, or one can endorse the view that some of our staunchest beliefs, in conjunction with desires, usually and functionally result in lines of conduct.[19] Bain himself notoriously wavered between such a strong and a weak versions of his thesis, and some of his readers think that he "recanted" from his earlier, too naturalist and too physiological, views.[20]

Thirdly, one can either understand "practical" as involving practice, *i.e.* as involving conduct, *i.e.* what we do, or one can understand "practical", as James sometimes did, as involving only a reference to *particulars*, whether they are acts, which we are prepared to perform, or sensations we are supposed to expect.[21]

16 W 3:266.

17 Peirce sometimes mentions uses of the maxim concerning natural kinds ("precepts", CP 2.330), and sometimes restricts it to "intellectual concepts" (CP 5.467: "I understand pragmatism to be a method of ascertaining the meanings, not of all ideas, but only of what I call 'intellectual concepts', that is to say, of those upon the structure of which, arguments concerning objective fact may hinge.").

18 GIREL, 2004.

19 This line of thought is present in James's early rephrasing of Peirce's ideas, and is prominent in the *Talks to Teachers*. I have argued elsewhere that the *Talks to Students* endorsed a more comprehensive account of action. See GIREL, 2007b.

20 See WERNHAM, 1986b; and WERNHAM, 1986a.

21 See William James's definition of Pragmatism, in Baldwin's *Dictionary* (1901-02), as republished in CP 5.2: "The doctrine that the whole "meaning" of a conception expresses itself in practical consequences, consequences either in the shape of conduct to be recommended, or in that of experiences to be expected, if the conception be true."

From there, one can build a matrix[22] that is useful to disambiguate some of the most frequent forms of pragmatism; however, that is not my main concern here, even if I think that it is important, before we come to characterize one particular "flavor" of pragmatism, to say where we stand with respect to these three claims. For example, some readers refer to James's "pragmatism" when in point of fact they have the *Will to believe* in mind (and thus something like the first family of claims), sometimes they refer to his way of elucidating meanings, whether this implies a substantive account of action or not.[23]

1.3 Presuppositions

As we can expect, there can be a more or less compact entanglement between these three claims. To be clear, I am interested here in the "non-entanglement" dimension, since I wish to assess whether the idea that beliefs are dispositions to act *is* a thesis that can be defended without involving the two others, and conversely whether one can be a pragmatist without endorsing it. The following arguments given here are meant to show that in most cases, the dispositional account can be disentangled from the two other claims.

Claim 1 does *not* presuppose Claim 2

One can be a pragmatist in the first sense without being a pragmatist in the second sense: one can subscribe to the view that the goal of inquiry is to lead to the settlement of doxastic states—to acquire stable beliefs—without endorsing the view that these states are also sequences or action (HOOKWAY, 2000, p. 23). Thinking that the goal of inquiry is to reach settled doxastic states simply does not imply that these states are also, functionally, phases of a particular conduct, or, for that matter, habits. This is so true that, in Peirce's first drafts about the theory of inquiry, the view that beliefs can also be seen as habits does not play a major role and deserves only passing mention.[24]

Claim 2 presupposes neither Claim 1 nor 3

The theory we are to adopt about mind is indeed compatible with several theories about knowledge, even though a strong dispositionalist approach can lead to an epistemology where stable states, which have some of the characteristics of habit,

22 As in the 1903 *Harvard Lectures* concerning systems of metaphysics, one would have seven kinds of pragmatism, I, II, III, I-II, I-III, I-II-III, II-III (only seven because someone who would not endorse any of the three claims would, of course, not count as a pragmatist). If we take into account the weak and strong version for each claim, there are, of course, more positions.

23 For reasons that would be too long to explain here, this is what happened to James when he was introduced in France. I have documented some aspects of this distortion/reception in Girel (2007a), and in another paper still in press: "What Went Wrong? A Confused Reception for James and a Faint One for Royce", *James and Royce: Pragmatism and Idealism in Dialogue*, D. Lamberth ed, HUP; available from my page on Academia.edu.

24 I would make an exception for W 3:76-77.

play an important role. Of course, one is also free to have different theories about semantics or, in a more modest register, one is also free to have different theories about the methodological rules for elucidating concepts, even though, here again, some theories about meaning will be hard to reconcile with Claim 2.[25]

Claim 3 does not presuppose Claim 2

It might be the case that in some writings, Peirce had assumed the dispositionalist account as the background for the pragmatist maxim. Forster, already in the papers published before his book,[26] strongly made the case that it was not a necessary step. Forster also stated that if there was a foundation for the pragmatist maxim (that is, for Claim 3), it was to be found in the general theory of symbols, and in a special application of this theory regarding the consequences from "A believes *X*". Peirce, at the end of his life, assumed that the ultimate "logical interpretant" could be phrased in terms of habits. However, those who are familiar with the details of MS317-18, know that the "deduction" of habits as the only possible form of ultimate logical interpretant is a tricky matter indeed. A disciple of Sellars, or of Brandom, will hold that the inferential account of meaning is related to the practice of assertion and to the "game of giving and asking for reasons." Brandom, nonetheless, is very explicit on the fact that he is in no way committed to the naturalist account of belief that was so important to some pragmatists.[27]

Claim 3 does not presuppose Claim 1 (insofar as Claim 2 does not presuppose Claim 1)

We might want to elucidate beliefs (or, for that matter arguments, propositions, rhemes, etc.) *before* they are fixed, and beliefs that never had to be fixed in the first place. Peirce later made a distinction between beliefs that have to be fixed and those that have to be elucidated.[28] It also makes sense to try and make notions clearer even though they are part of a theory that proves to be unsatisfactory (and which does not lead to a stable belief).

Claim 1 presupposes Claim 3 in a weak sense

That's in fact the transition Peirce implicitly offers between the two papers: pragmatic clarifications might be useful, in addition to the two first grades of clearness, when we have to settle unending metaphysical disputes.[29]

To put it shortly, there are at least two kinds of "proofs" of pragmatism: one broad kind of proof would consist in articulating these three claims, which is no small task since their mutual implication is rather weak. A lot could be said here, but

25 As we can see in the exchange between Sellars and Chisholm, where Sellars defends his account of intentionality based on his views on verbal behavior and thinking-out-loud, CHISHOLM, 1958.

26 See FORSTER, 2003; and of course FORSTER, 2011, especially Chapters 5 and 6.

27 See for example, BRANDOM, 2000, Preface.

28 See MS596, RR22 59600050.

29 MS 323:4-5.

it is clear at least that if one endorses a strong version of 2, one can build it in such a way that it will fit nicely with 1 (courtesy of the "stability" part), and 3 (courtesy of the intended consequences), which is the decisive step.

Another kind of proof, let us call it a "local" proof, is internal to one of the three claims: the challenge, here, would be to prove that the claim is consistent and can be rationally justified: one might want to prove that the scientific method does not postpone indefinitely the fixation of belief;[30] or that beliefs really need to be understood as preparednesses to act;[31] or that there is an ultimate logical interpretant and that this interpretant is of the nature of habits or of conditional practical expectations.[32]

Let us stick here with the first (broad) kind of proof. Since a full survey is not possible in such a short format, we shall take a close look at the connection between the second claim, about beliefs and dispositions, and the third claim, about conceptions and their clearness, developed in 1878, in the classical version of Peirce's pragmatism. The rationale for this focus is the following: much has been written about Peirce's early theory of inquiry, and much more, possibly, about his semiotics, but close examinations of his dispositionalism, in the context of the pragmatist maxim, are not that frequent.

2 How Pragmatic are Peirce's Examples in 1878?

How to Make our Ideas Clear is notorious for providing methodological clues for reaching a "third grade of clearness of apprehension" (W 3:266), and for relying, in order to do so, on a dispositional account of belief ("the whole function of thought is to produce habits of action", (W 3:265);"there is no distinction of meaning so fine as to consist in anything but a possible difference of practice" and "what a thing means is simply what habits it involves" [*Ibid.*]). In which ways exactly are pragmatic clarifications *pragmatic* in the second sense mentioned above? In later texts, Peirce sometimes referred to pragmatism as the idea that a thought is nothing but a habit connected with a sign.[33] We would then have a neat articulation of the last two claims, and things would be pretty clear. Peirce would defend a full-blown dispositionalism, easily integrated into his mature tri-categorical realism and semiotics. It is certainly no accident that the most suggestive accounts of conduct in Peirce deal with these later writings. It is often assumed that Peirce was more of a naturalist in 1878 and already a dispositionalist. What about Peirce's examples in the *Illustrations of the Logic of Science* then?

In the same way that it is natural to confront the pragmatists' sundry agendas and their respective achievements, it is natural to look not only at what Peirce *claims* about the role of dispositions in the clarification of conceptions and at what he *makes out of it*. Since he gives several detailed illustrations in HMIC, one should expect that they provide evidence of the pragmatist maxim "at work". There are at least six examples in HMIC, and the question is to assess whether they are credible instances of

30 SHORT, 2000.

31 TURRISI and Charles Sanders PEIRCE, 1997, Lect 1.

32 MS 318.

33 NEM 3:191.

pragmatic clarifications. The two first examples—the musical melody, the "dots", and transubstantiation—have been overlooked in the extant scholarship, while"hardness", "force", and, of course, "reality" have been much more studied. Is the dispositional account even important in their clarifications? Do the elucidated meanings clearly incorporate reference to practical bearings, such aswhen we describe our dispositions?

2.1 Practical bearings

HMIC is divided into four sections: Section I deals mainly with the two first grades of clearness; Section II introduces the "bold" definition of belief as habit *and* the pragmatist maxim. The latter appears at the end of the example of transubstantiation. Section III applies this conception to the notions of hardness, weight and force, Section IV to the notion of Reality. Commentaries often overlook what happens in section II and in the first two examples, one involving a musical melody and the second involving a diagram. Are they more "pragmatic"?

Peirce introduces the topic of thought in section II, and, like Frege but following different lines, he wants to make a distinction between "thinking", as a psychical event, and "thought", as what can be analyzed by logical dissection. Perhaps in recollection of his European trip, where he attended several operas, he compares thought to music. There can be many instruments, many ornaments, many different lines of thinking, and a single melody, a single thought:

> We may add that just as a piece of music may be written in parts, each part having its own air, so various systems of relationship of succession subsist together between the same sensations. These different systems are distinguished by having different motives, ideas, or functions. Thought is only one such system, for its sole motive, idea, and function is to produce belief, and whatever does not concern that purpose belongs to some other system of relations.[34]

Not everything that involves the mind (or that involves the infinite transformations of signs) counts as thought here. Only what is congruent with the "end" of thought, that is to say reaching stable beliefs, will qualify. All this sounds like a recapitulation of *Fixation of Belief* but what is totally new, compared to former manuscripts, lies in the analysis of belief and in the idea that the line of action "flowing" out of a belief is actually what *individuates* that belief. The function of thought is to reach stable beliefs, and now these stable beliefs are also described as distinct modes of action:

> The essence of belief is the establishment of a habit; and different beliefs are *distinguished* by the different modes of action to which they give rise. If beliefs do not differ in this respect, if they appease the same doubt by producing the same rule of action, then no mere differences in the manner of consciousness of them can make them different beliefs, any more than playing a tune in different keys is playing different tunes.[35]

34 W 3:263.

35 W 3:263, *my emphasis.*

We don't find such claims about habits as dispositions in the preparatory manuscripts. Peirce's argument is not trivial: he has now to account for the identity of habits, in order to disambiguate thoughts, and it is at this very point that he makes a weighty choice.

Peirce endorses a definition of habit that many commentators, starting with Alston back in the 1950s (ALSTON, 1955) have found to involve a very narrow theory of motivation, and which sometimes begs the question:[36]

> Now, the identity of a habit depends on how it might lead us to act, not merely under such circumstances as are likely to arise, but under such as might possibly occur, no matter how improbable they may be. What the habit is depends on *when* and *how* it causes us to act. As for the *when*, every stimulus to action is derived from perception; as for the *how*, every purpose of action is to produce some sensible result. Thus, we come down to what is tangible and conceivably practical, as the root of every real distinction of thought, no matter how subtle it may be; and there is no distinction of meaning so fine as to consist in anything but a possible difference of practice.[37]

What is perplexing is that, even with the proviso that "conceivable" consequences have a role to play, this account totally reduces, or eliminates, action as involving continua, norms, and ends, that is to say what we generally mean by "conduct". Habit, here, is determined with respect to perception ("every stimulus to action is derived from perception") and leads to percepts (it has to "produce some sensible result"). As a result, the practical is nearly equivalent to sensations, or, better, to expected sensations (the "difference in practice", finally is a difference in the "tangible"). We can see that this first articulation between the three pragmatist claims (epistemological, mental, semantic) is made at the cost of the richness of practice itself. It is akin to a pragmatism without practice.

Some readers saw very clearly that Peirce's move was quite weak: of course, every statement about experience can be converted in a statement about practice, provided we describe the experimentation leading to these observations itself as a line of conduct. For any X experienced, you can offer the following protocol: If you do Y, you will experience X (or, if you only did so-and-so, you would experience X). That is an eternal bone of contention between instrumentalist and realist interpretations of quantum mechanics. The latter interpreters claim that the first ones content themselves with rephrasing actual observations as indications stipulating how one should organize such experiments to experience such sensations and such perceptions; instead of giving the result of a measure, we describe the operation of measurement. Let's allow, for the sake of the argument, that this move

36 Peirce himself raised the point, in the Harvard Lectures, and in other MSS. "[It] could hardly fail to be based on a begging of the question as it plainly is in that it is entirely built upon the principle that that which a man believes is the proposition upon which he will be satisfied to act." (MS 296:39 (1907-08 according to Robin), as quoted by FISCH, 1986, p. 367).

37 W 3:265.

from observation to an experimental protocol is always possible by definition. But this does not prove the converse, that conduct can always be described in terms of sensational experiences, whether they are causes of beliefs or experiences to be expected.[38] That would of course be a strong "proof" of pragmatism. In 1878, Peirce provides, through his minimal account of motivation, something that is close to this proof. He explains that beliefs are habits, having a stimulus and leading to new sensations. In this account, everything practical will also be experiential, but practice nearly evaporates.[39] The first conclusion of this section is that dispositions do not actually play a major role in Peirce's argument in 1878 as such.

2.2 Dots and bread

The first real example is that of the "two" graphs, which are a bit different in the English and in the French version[40] (certainly because of different national habits!). Peirce offers it just after his characterization of thought and habit. It would seem to be a first illustration of such an approach.

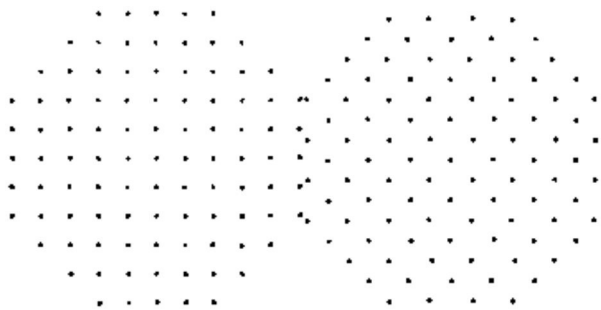

Fig. 1 Fig. 2

Of course, they are identical in some determinate respects: believing that objects are arranged as in Figure 1 is also believing that they are arranged as in Figure 2. But in which ways exactly does this identity involve *habits*? That is not clear in Peirce's text. Of course, one can imagine that the second grid is the first one modulated

38 In *What Pragmatism Is*, Peirce tries precisely to "prove" this converse: "Since obviously nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and there is absolutely nothing more in it." CP 5.412.

39 Fortunately, we have richer accounts of habit in Peirce, see Colapietro's paper on clarification, competence and purpose (COLAPIETRO, 2009). I subscribe to most of the points of this excellent paper; still, it is telling that most of the quotes are borrowed from EP2, that is to say from a period when Peirce had overcome some of the limitations of HMIC.

40 An interesting thing is that in the original version, the two figures, 1 & 2, are actually *different*, as well as in my copy of W3 (1986 edition), but only a few readers noticed. The version given in EP1 is corrected.

by a bit of rotation or by another symmetry. But is habit so important and even interesting there? That is not obvious.

Is it even true that these graphs would involve the same substantial habits? Let me offer just one example: two traffic signs can be identical as regards the mutual—geometrical—relationships of their points but not at all with respect to a real vector space and to the habits of conduct they govern. The first sign below is seen quite frequently in my neighborhood. The second one, however, created through axial symmetry, is seen nowhere in France (since it would imply that one drives on the left side of the road). The third one is not to be confused with the first one of course… or accidents are bound to occur. The point of this example is to show that when we connect this pattern with different sets of habits, it can have very different meanings,[41] and we need that kind of information before deciding if the figures are actually identical.

How are we to decide which practical "details" are unimportant here, and which habits are worthwhile to describe? Saying that his example is already "pragmatic" is not helpful if all one has to say is that one can transform the first graph into the second. That would be a very *implicit* pragmatism, compared to the "loud" dispositionalism that introduced this example.

The second example, the one that helps introducing the pragmatist maxim, is that of "transubstantiation". Peirce's point is to show that if we have any idea about "wine", this involves definite sensational consequences. Catholics and Protestants are supposed to agree on the "accidents", whether they interpret the substance-change in a literal sense or, to use Peirce's phrase, in a "tropical" sense. But do Catholics and Protestants have the same habits? That is trickier: of course, they might expect to experience the same "accidents"—the same sensations—when they deal with diluted wine and communion wafers, but will they act the same way? Nothing is less sure.[42] In any case, see how action in a broad sense disappears from the consequences Peirce draws:

> Our idea of anything is our idea of its sensible effects; and if we fancy that we have any other we deceive ourselves, and mistake a mere sensation accompanying the thought for a part

41 In the language of Peirce's later semiotics, they have different interpretants.

42 Seel MS 596, partially retrieved in CP 5.541.

> of the thought itself. It is absurd to say that thought has any meaning unrelated to its only function. It is foolish for Catholics and Protestants to fancy themselves in disagreement about the elements of the sacrament, if they agree in regard to all their sensible effects, here and hereafter.[43]

I do not need to repeat that the pragmatist maxim is offered as a sequel to those very lines, so much so that the "practical", in the "practical bearings" mentioned in the maxim is certainly to be read in relation to the quotation just given, that is to say as involving sensational particulars, hence not a credible version of claim 2. Which, again, is not to say that Peirce did not reconstruct afterwards the same maxim around a much broader account of conduct, but this account is simply not at work in the two first examples in 1878. What about the next ones?

2.3 Pragmatist and Realist arguments

Here, we can rely on previous versions of Peirce's examples in order to show that the dispositional aspect was not prominent, when they were first introduced. As we know with the help of the manuscripts retrieved in W3, some of Peirce's last four examples, in the list I just mentioned, are by no means new in 1878.[44] They were used as early as 1872 in the context of the *realist*—Peirce sometimes says "idealist"[45]—argument he was then contemplating. Peirce had to prove, against the nominalists, that reality could somehow be connected to our chains of reasonings, not only at the beginning, in "observations" or "impressions" for example, as classical empiricists or psychological nominalists would have it, but at the other "end", on the side of our conclusions, of the consequences we expect to happen. Reality is independent not of thought in general but of *my* thought(s) or of *your* thought(s), reality "is independent, not necessarily of thought in general, but only of what you or I or any finite number of men may think about it."[46] But thoughts as psychical events, as observations for example, are singular in character; so reality, in general, is independent of our starting-points in its singularity (that's the gist of the story with the deaf-mute and the blind witnessing the same murder in the 1871 *Fraser Review,* starting with very different sensational cues but converging towards the same conclusion). Of course, this account of reality certainly sounded paradoxical enough to Peirce's non-Kantian listeners or readers and he felt he had to give it some

43 CP 5.401.

44 On the clarification of reality, see W 3:28-59, and for an early version of the examples, see for example W 3:30-31 (End of 1872).

45 "Thus we find the physicists, the exactest of thinkers, holding on regard to those things which they have studied most exactly, that their existence depends on their manifestations or rather on their manifestability. We have only to extend this conception to all real existence and to hold these two facts to be identical, namely that they exist and that sufficient investigation would lead to a settled belief in them, to have our Idealist theory of metaphysics." (W 3:59). For a good analysis of the apparent naturalism of the 1872-73 texts, Murphey is still very accurate (MURPHEY, 1961, p. 166-167).

46 W 3:274.

flesh; he had to explain how it is that "the object of the final belief, which exists only in consequence of the belief, should itself produce the belief."[47] Or, in other words, how the reality of the object of the occurrent belief is contingent upon something that "will" happen, one representing or expressing the "final" opinion.[48] Peirce tries hard to make this view less paradoxical, to show that it is "already" presupposed in the ordinary ways of talking about reality,[49] and he evidence that the same kind of relation is found in all the common elucidations we give of *properties*, whether physical or mental.[50] After all, their reality is also dependent on something that will happen (later, he will say: that *would* happen). As a consequence, the logic of his examples, in the 1872 drafts, is to make his reality argument "less paradoxical", less "extraordinary". For example:

> There is *nothing extraordinary* therefore in saying that the existence of external realities depends upon the fact, that opinion will finally settle in the opinion in them. And yet that these realities existed before the belief took rise, and were even the cause of that belief, *just as the force of gravity is the cause of the falling of the inkstand*—although the force of gravity consists merely in the fact that the inkstand and other objects will fall.[51]

Or, again:

> Thus the existence of something in the present depends on the future occurrence of a certain event. *This may sound strange but the strangeness will disappear* upon considering the numerous familiar instances of the same sort. A diamond is really hard.

47 W 3:30.

48 Peirce says in 1870 "will" (future tense); for an analysis of the move from philonian conditionals to counterfactual ones, see TIERCELIN, forthcoming.

49 I cannot get into further details here, but it is an integral part of Peirce's method and what leads him to give a prominent role to belief and doubt in his early epistemology. See W 2:357: "We wish to ascertain the truth, but what is truth? This is an indispensible inquiry if we so define the function of reason, yet it would plunge us at once into a sea of metaphysics from which we could not hope soon to emerge. Opinions upon this subject are various; and it is therefore uncertain what truth is. It is not likely we could reconcile those opinions when so many greater men have failed, and therefore we could not obtain any certain answer to this question. By such a method, therefore, we could gain no clear and trustworthy conception of the end of reasoning. *Let us then avoid this idea of truth as long as we can and keep in the realm of those everyday and concrete notions about which there can be no mystery nor vagueness"* (*my emphasis*). See also CP 8.112: "We must set out from ideas familiar and complex, as Hegel began his greater masterpiece by considering a man sitting under a tree in a garden in the afternoon. We must not begin by talking of pure ideas,—vagabond thoughts that tramp the public roads without any human habitation,—but must begin with men and their conversation."

50 On properties and powers, the review of Fraser's Berkeley is also a good starting point, see W 2:469 (1871).

51 W 3:31, *my emphasis*.

> Its hardness consists in a quality he possesses all the time. And now what does this hardness consist in? It consists in nothing else but this, that rock crystal will not scratch it.[52]

Here is the first role of the examples in 1872. Even if we can point to the fact that they rely more on Philonian conditionals than on Peirce's more mature view of counterfactuals, they are used to prove one thing, that the *reality* of hardness, of weight, of force, even of our linguistic capacities, is not confined to actual manifestations or observations, as is clear in the example the example of force: "Every force resident in a body consists only in the fact that certain phenomena will occur under certain conditions."[53]

The examples are instrumental within an argument about *reality;*[54] they *elucidate* the notion of reality itself.

What is important then is *not* our actions, but the fact that any property encapsulates a host of upcoming happenings. The reasoning would be the same if the scratch on this stone was made by some brute dyadic encounter with other stones rather than by manipulation, and that is exactly how Peirce elucidates hardness ("a rock crystal will not scratch it"), unless we advance the bolder argument that everything that is "expectacious" is somehow connected to human action, but that would be… a bold move. Things have not really changed in 1878:

- The "hardness" example in 1878, as in 1872, does not refer explicitly to the action of the mineralogist (as later texts will do). In the same way, the "force" example does not refer explicitly to the work of the physicist, but to the fact that forces are only compound partial accelerations: "let us ask what we mean by calling a thing *hard*. Evidently that it will not be scratched by many other substances."[55]

- Regarding "weight": "To say that a body is heavy simply means that, in the absence of opposing force, it will fall" (W 3:267).

- Regarding "force" and the "great fact which this conception embodies": "This fact is that if the actual changes of motion which the different particles of bodies experience are each resolved in its appropriate way, each component acceleration is precisely such as is prescribed by a certain law of Nature, according to which bodies, in the relative positions which the bodies in question actually have at the moment,

52 W 3:80, *my emphasis*.

53 W 3:81. See also: "The existence of any physical force is nothing but the truth of the fact that if certain conditions shall be complied with, certain accelerations will take place" (W 3:59).

54 This would be an important point in order to qualify Hookway's 1985 views that naturalism was a permanent pattern in Peirce's philosophy in the 1870s (HOOKWAY, 1985, p. 52-53).

55 W 3:266.

always receive certain accelerations, which, being compounded by geometrical addition, give the acceleration which the body actually experiences."[56] One might claim that in that example, there is at least something we do: we draw the parallelogram of forces, in order to show that all the paths are equivalent. Still, it is only second to the other fact that in physics forces are composed of partial accelerations. Here we could take advantage of another slightly earlier text, *The Principles of Mechanics* (W 3:204-205, 1876). In this short manuscript, Peirce stresses that the "law of acceleration" is the "sole law of nature", and expresses this law as follows: "*the acceleration of the motion of any body, at any instant, is composed of partial accelerations, compounded by geometrical addition, and determined by the relative momentary position of the bodies concerned*" (W 3:204, Peirce's italics). The only place where Peirce introduces actions, in his commentary, is when a parallelogram of forces is derived to give an estimate of the "resultant" of accelerations, but this hardly count as a clarification of force itself.

Space being short, I will thus content myself with saying that I only see minor changes between 1872 and 1878 in the last examples given in HMIC.[57] The only major difference is that they are now *introduced* by an account of thought and human action, the same one that drew the attention of James and then of scholars who were looking for the roots of Peirce's dispositionalism. But what do we mean by saying that "practice" or "dispositions" do not play a key role in those elucidations? Is it to be found elsewhere in HMIC?

3 The emergence of dispositionalism?

If we have what seems to be a full-blown dispositionalist account of belief in *How to make our ideas clear*, it seems to be confined to section II and does not play a major role in the elucidations. We have also said that what makes the pragmatist maxim pragmatist cannot be clearly located in the extant 1872 manuscripts. If the points I've raised in the previous section are right, then we would have an "outbreak" of dispositionalism that is of no real import at the time, which does not mean that it did not prove to be a major source of inspiration for Peirce's later thought (I think that is the case). One tempting idea is to think that it was introduced in the *Illustrations* ahead of a fuller treatment because Peirce felt it was something promising in contemporary accounts of science, something that he came to see more clearly when he wrote the new parts of the papers around 1877.

56 W 3:270.

57 One often has the feeling that the hardness example is more "pragmatic", because it involves the action of the knife of the mineralogist, but this character appears only in later re-phrasings, see CP 5.467.

3.1 "Amplifications" and "padding"?

The points I have just made, about the composition of the *Illustrations* and the role of the dispositionalist theme, do not rely on Peirce's later recollections: one only has to read the texts and compare them. Nevertheless, this analysis can be backed by one late account of the *Metaphysical club* period, in MS 620 (1909),[58] in which Peirce states: "My Metaphysical Club paper on Pragmatism, almost without alteration other than amplifications and padding, served for my first two articles."[59]

This seems to imply that both papers articulate a clear and consistent account that would already have been crystallized as early as 1872 (around the time the realist argument I have been sketching in the second section was developed). Still, in what immediately follows, Peirce points to some "additions"—in his own words "amplifications and padding"—to the original text. This is important since we can reconstruct nearly all of *Fixation* and the section on "Reality" of HMIC by rearranging earlier manuscripts, but we know that Peirce produced some fresh work when he wrote HMIC. These additions should thus be closer to the line of thought he was then following and they look by no means trivial:

> One set of amplifications, in the second article, occupied considerable space and were highly important. […] My second magazine article, now at last, is explicitly presented, as it was always intended, as the second chapter of an essay, *amplifying the paper read to the Club with illustrations of the maxim of clearness that had not been needed at first*, on account of my having put forth such interpretations at previous meetings, before I had undertaken to formulate their common motive. [...]. *Another amplification of the original paper, first introduced in the Magazine article lies in its* [*second*] *section, where the pragmatic interpretation is treated as the highest of three grades of clearness of apprehension.*[60]

We have several claims here:

- A first type of addition consists in the "illustrations of the maxim of clearness". It is difficult to see if the illustrations he added are just the "dots," and the example of transubstantiation, or *all* the examples. It would seem clear that from what was said before that the real additions are the two first examples.
- A second kind of addition consists in offering the "pragmatic interpretation" as "the highest of three grades of clearness of apprehension", that is, with the pragmatist maxim itself.

58 Max Fisch published this MS 620 as an appendix to his essay "Was There a Metaphysical Club in Cambridge?" published in MOORE AND ROBIN, 1964, p. 1-32. The appendix is p. 24-29. This was not included in the 1986 collection. I have worked on the microfilm version.

59 PEIRCE, MS 620:16, 1909.

60 *Ibid.*

The substantial additions to 1872 are thus, as Fisch suggested, nothing less than the pragmatist maxim, the new examples, and therefore the claims about the "end" of belief which introduce the new examples. The context is important: around 1875, Peirce is often in Europe and has many encounters with his fellow scientists. It might be the case that the "additions" convey something of the scientific *Zeitgeist* of the time.

3.2 Berkeley, Helmholtz?

I have long thought that some nominalist and naturalist strands in the 70s came from both Peirce's reading of Berkeley and Helmholtz, who is present as a reference in the Fraser review and, implicitly, from the *Illustrations* as well. Peirce comes very close to his 1878 pragmatism in the Fraser review, when he says that when "things fulfill the same function practically", they should be "signified by the same word,"[61] but without referring to beliefs as dispositions (he would thus be defending claim 3 without claim 2). Helmholtz, in his *Physiological Optics* and in the same spirit, claims that our ideas are "symbols", insofar as they are "natural signs for things which we learn how to use in order to regulate our movements and actions":

> In my opinion, therefore, there can be no possible sense in speaking of any other truth of our ideas except of a practical truth. Our ideas of things cannot be anything but symbols, natural signs for things which we learn how to use in order to regulate our movements and actions. Having learned correctly how to read those symbols, we are enabled by their help to adjust our actions so as to bring about the desired result; that is, so that the expected new sensations will arise.[62]

You can make a practical use of ideas, you can use your visual "ideas" as signs for tactile "ideas", as Berkeley argued in his *New Theory of vision*. Action, here, is subjected to the same kind of reduction to sensations, antecedent or expected, we have witnessed in the *Illustrations*. Is it the case that thinkers close to Peirce used Bain's ideas more explicitly or their equivalent, to make sense of science, without subscribing to a narrow view of conduct?

3.3 A Cliffordian Strain?

Let's get a bit hypothetical here, and ground this hypothesis in something that is not too speculative. At the end of *Fixation*, Peirce has an interesting claim about

61 "A better rule for avoiding the deceits of language is this: Do things fulfill the same function practically? Then let them be signified by the same word. Do they not? Then let them be distinguished. If I have learned a formula in gibberish which in any way jogs my memory so as to enable me in each single case to act as though I had a general idea, what possible utility is there in distinguishing between such a gibberish and formula and an idea? Why use the term a general idea in such a sense as to separate things which, for all experiential purposes, are the same?" (EP 1:102, 1871).

62 Helmholtz, *Physiological Optics*, [1867-71, tr. HELMHOLTZ AND SOUTHALL, 1925, v.3, p. 19-20.

belief-change (by the way, in a paragraph that was not in the manuscripts), where the point is that we should not elude our responsibility regarding our own beliefs. This would be the responsibilist account which is of such interest in Christopher Hookway's reading. Peirce's version could be summed up as: *It is wrong, always and everywhere, not to inspect the integrity of one's beliefs*, or, in more words:

> But, above all, let it be considered *that* what is more wholesome than any particular belief is *integrity of belief*, and that to avoid looking into the support of any belief from a fear that it may turn out rotten is quite as immoral as it is disadvantageous. The person who confesses that there is such a thing as truth, which is distinguished from falsehood simply by this, that if acted on it should, on full consideration, carry us to the point we aim at and not astray, and then, though convinced of this, dares not know the truth and seeks to avoid it, is in a sorry state of mind indeed.[63]

That is very Cliffordian in tone, as the point has sometimes been made.[64] But is it explicitly so? I would be tempted to argue that it is. Clifford is Bainian in quite a radical way: there is an ethics of belief because beliefs have consequences. In a paper he read at the Metaphysical Society, exactly at the time he met with Peirce in London in 1875, Clifford offers a definition of science that is the closest I know to the Pragmatist maxim. It starts with the idea that science is a kind of refined craft, and he offers a general definition.

> The important point is that science, though apparently transformed into pure knowledge, has yet never lost its character of being a craft; and that it is not the knowledge itself which can rightly be called science, but a special way of getting and of using knowledge. Namely, science is the getting of knowledge from experience on the assumption of uniformity in nature, and the use of such knowledge to guide the actions of men. And the most abstract statements or propositions in science are to be regarded as bundles of hypothetical maxims packed into a portable shape and size. Every scientific fact is a shorthand expression for a vast number of practical directions: if you want so-and-so, do so-and-so.[65]

We have here something that will be typical of pragmatism: a dispositional account of belief. This includes an interpretation of sentences in the indicative mood as confused forms of imperatives, an articulation between the psychological and the physiological, as well as the claim that the nature of "science" is not conveyed in the conclusions or in mere formal relations but in *methods*. It is striking that

63 W 3:257.

64 See for example ANDERSON, 1995, p. 94, and ANDERSON, 1997, p. 226; see also POTTER and COLAPIETRO, 1996, p. 20. Surprisingly, MITOVA, 2008, does not mention Peirce.

65 CLIFFORD, 1879, p. 109.

exactly this idea surfaces in the "amplifications" and "padding" Peirce added just before publishing HMIC. It is also striking that Clifford offered his own "pragmatist maxim", before Peirce, without presupposing the narrow view of action that was so "unpragmatic" in HMIC.

Conclusion

In this paper, I have claimed that, oddly enough, Peirce's early papers do not obviously contain pragmatic clarifications, in two senses. They do not necessarily use, in their clarifications, the dispositional account of belief that is forcefully articulated in the second section of *How to make our ideas clear*. They do not necessarily interpret "practical" in the "practical bearings" of the objects of our thought, as referring to what we call *practice*, as referring to "conduct". I submit that one should assess pragmatic clarifications by what they actually *do*, and I also think we have still some ground to cover as regards the intellectual context of the *Illustrations*. There is already some stimulating work concerning Peirce's European contacts; this might lead to the discovery of some unexpected fellow pragmatists.

We tend to read the 1878 texts through the later texts (and in particular the Pragmatist *Monist* series), where the stress on conduct is more prominent, and we might thus be led to overlook a major conceptual move on the notion of the "practical", in the Pragmatism maxim, in the interval between 1878 and 1905. More and more, Peirce came to consider "practical" as equivalent to "subject to self-controlled conduct", and this certainly has consequences for the reconstruction of the pragmatist framework he provides.

A last word: Peirce certainly could not be considered a crude dispositionalist in a reductionist way in the 1870s since the antidote was already in his drafts. Actions flowing out of our beliefs are not mere deeds, they are also signs, and this was something that was already pretty clear to Peirce in 1872 in lines that unfortunately did not make their way to the *Illustrations*: "Even if a belief is a direct motive to action it still is a belief only because that action is interpretable again. And thus the intellectual character of beliefs at least is dependent upon the capability of the endless translation of sign into sign."[66] It is tempting to think that Peirce glanced at these drafts, at some time during the 1880s, just before his 1885 review of Royce, where the semiotic integration of beliefs is given a fresh start. It is also tempting to think this would be the real first sequel to the *Illustrations*.[67]

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66 CP 7.357.

67 See some further arguments in GIREL, 2011.

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