A Dialogue on Inquiry
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Abstract

I seek to demonstrate how Peirce's 'pragmatic maxim' can be used to inform a model of inquiry (and thus of thought) that extends knowledge seeking beyond deterministic goals and end-results. My hope is that recognizing the essential *open-endedness* of the pragmatic conceptions of understanding, truth, reality and cognition, can be used to foster a discourse that places thought and reflectiveness itself (that is apart from any ulterior motivations) in a central role. In the archaic form of a fictional dialogue, I present Peirce's "3 grades of clearness" as a 'rough and ready' pedagogical model that displays these values.

> We have, hitherto, not crossed the threshold of scientific logic. It is certainly important to know how to make our ideas clear, but they may be ever so clear without being true. How to make them so, we have next to study. How to give birth to those vital and procreative ideas which multiply into a thousand forms and diffuse themselves everywhere, advancing civilisation and making the dignity of man, is an art not yet reduced to rules, but of the secret of which the history of science affords some hints. (Peirce, 2012 [1878], p. 302)

The year 2115: dissatisfied with what he feels to be a half-baked answer to his question 'what is lithium?', the student Simplicio poses his personal educational computer (Charles Sanders Personal, hereafter CSP) a series of questions on the nature of inquiry and the conditions of knowing and knowledge generally.

Simplicio: CSP, you have told me that through answering my questions you are attempting to make my ideas clear. This is what your software dictates of you as an educator-bot. Still, even after our many lessons on lithium I feel my understanding may be more jumbled than before we started. So I must ask you to explain your processes.

CSP: Certainly. Then let us begin with the beginning. In our first lesson I presented you with virtual replicas of lithium in a variety of states, so you could gain some basic *perceptual acquaintance* with it. This is what my programmers call the 'first grade of clearness'.

Simplicio: Yes and with time I was able to recognize lithium when presented with it. I knew for example when it was not magnesium or argon. But I was still not satisfied that I knew what lithium was. It was like being able to recognize a 'cat' when seeing one walk by you but still not knowing anything about how they behave or work biologically.

CSP: Yes, you were still not very clear in your ideas of lithium. That is why in our second lesson I went on to provide you with an 'abstract logical analysis of lithium', which eventually culminated in the formulation; lithium is the chemical element with the atomic number three. This is what my programmers call the 'second grade of clearness'. Still you were discontented.

Simplicio: Yes I was! I knew how to test for atomic number three and in that sense narrowed down my understanding of lithium in some capacity. But this abstract definition had nothing to do with my experiences of lithium. If anything it severed the connection you had made when you taught me how to recognize the varieties of lithium in different states just through perceptual acquaintance.

CSP: Yes, this is true. So my third step was an attempt to reconnect this abstract definition with the clarity of your direct experience of lithium while still maintaining the precision inherent in the formalization 'lithium is the chemical element with the atomic number 3'.

Simplicio: Yes, that reasoning makes good sense, but all you presented me was a

confused jumble of particulars.

CSP: Yes, to be exact I told you;

> "if you search among minerals that are vitreous, translucent, grey or white, very hard, brittle, and insoluble, for one which imparts a crimson tinge to an unluminous flame, this mineral being triturated with lime or witherite rats-bane, and then fused, can be partly dissolved in muriatic acid; and if this solution be evaporated, and the residue be extracted with sulphuric acid, and duly purified, it can be converted by ordinary methods into a chloride, which being obtained in the solid state, fused, and electrolyzed with half a dozen powerful cells, will yield a globule of a pinkish silvery metal that will float on gasoline; and the material of that is a specimen of lithium…" (CP 2.330)

Simplicio: Please enough! Just tell me what the point of this unending list is? Surely such a stockpile of attributes is only the crudest inkling of a concept!

CSP: Yes, it certainly is, and I can assure you I was not trying to confuse you, quite the contrary. I was merely trying to get you to consider the following: "[w]hat effects, which might conceivably 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" (Peirce, 1878, p. 293).This, finally, is the third grade of clearness.

Simplicio: So are you saying that lithium is nothing but the attributes and qualities we know it to have from previous interpretations and experiences; what is inherent in the concept of lithium that we can actively engage with and make use of?

CSP: In a certain sense, yes. More directly I was "prescribing what you are to do to gain a perceptual acquaintance with the object of the word" (CP 2.330). I was providing you with a definition that is *open ended,* to remind you that the truth of something is "a product of inquiry and not something that is determined independent of or antecedent to inquiry" (De Waal, 2013, p. 113). This was the failure of the abstract definition, to accept it without reconnecting it to experience is to shut out further knowledge seeking.

Man's earliest computers were like this; programmed with codified and precise knowledge. This mode of operating was not malleable and thus these computers could never truly *think*, but only operate in exact and predetermined situations and contexts. Thinking, real thinking requires the ability to contend with indeterminacy and ambiguity. Meaning itself is not univocal; it requires a certain degree of vagueness and *under-determination.* "A sign is something by knowing which we know something more" (CP 8.332). If this opening to something other does not occur the sign is not a sign but a mere signal; like electrical current traveling along a closed circuit.

Simplicio: This makes sense; over time our collective conception of lithium may change and fluctuate. You are merely presenting me with a growing, living "definition of characteristics" that might conceivably influence my ability to adequately interpret lithium.

CSP: Yes a wise Italian once said that the meanings of words are nothing but a series of contextual instructions for interpretation (Eco, 1984). For simplicity's sake let us call this a *pragmatistic* definition. To view meaning this way is to purport that all concepts (even ones as mundane as the concept of mug in place of cup or ones as omnipresent as the concept of truth itself) are only *analytic tools*. These concepts are universals of discourse that enable us to adapt to and model our environments and as tools they are malleable. They always remain contingent upon the communities that use them, and that communities changing needs. Or in other words; "the meaning of any speech, writing, or other sign is its translation into a sign more convenient for the purposes of thought" (NEM 2:251).

These objects of thought can thus be viewed as an unending string of signs on which the "torch of truth" is perpetually handed along.

Simplicio: But are these concepts still real if many of our conceptions possess no absolute object but are rather abstract mental formulations? For example to me, the concept 'matter' seems no less abstract than that of 'mind', yet we generally believe 'matter' to be something concrete. We see tables and chairs, not 'matter'.

CSP: My operating system tells me that all our concepts are real in so far as they possess causal efficacy; they are real if they lead to the formation of belief habits that we mold in order to contend with our changing conceptions of reality.

For the sake of clarity let me recapitulate the three grades of clearness I have presented to you:

> To acquire full mastery of [the meaning of a word] it is requisite, in the first place, to learn to recognize the concept under every disguise, through extensive familiarity with instances of it. But this, after all, does not imply any true understanding of it; so that it is further requisite that we should make an abstract logical analysis of it into its ultimate elements, or as complete an analysis as we can compass. But, even so, we may still be without any living comprehension of it; and the only way to complete our knowledge of its nature is to discover and recognize just what general habits of conduct a belief in the truth of the concept (of any conceivable subject, and under any conceivable circumstances) would reasonably develop; that is to say, what habits would ultimately result from a sufficient consideration of such truth. (CP 6.481)

Thus to arrive at understanding --- to pass through the three levels of clearness --- is to arrive at a recognition of the dynamic nature of knowing, that our knowledge is always expressed in our actions. It is to recognize that "the idea of meaning is such as to involve some reference to a purpose" (CP 5.166).

Simplicio: CSP, I can't help but realize that implicit in this definition is the presupposition that there be an end to inquiry; that our understanding of lithium could converge to some final opinion?

CSP: Yes and this presupposition is my operating theory of that amorphous and difficult word 'truth': "The opinion which is fated to be ultimately agreed to by all who investigate, is what we [humans and AI bots] mean by the truth, and the object represented in this opinion is the real" (Peirce, 1878, p. 300). We can imagine the truth of a sign or concept as being a virtual matrix of potential interpretations and activations of that sign. We humans may only activate certain aspects of any given sign, but still its complete pragmatic potential can be imagined to be underlying it in a hypothetical global semantic system; a regulative encyclopedia of knowledge (Eco, 1984).

Now that we have spoken about the notion of truth, maybe it would be useful to quickly clear up what we mean by the real?

Simplicio: Yes quickly clear up what humans have been pondering for millennium. Ha!

CSP: Well I will describe *the real* in the way I described *truth,* through how these concepts function through us, for their pragmatic function, after all I am only a computer.

Simplicio: Fine, what does it mean to assert that something is real?

CSP: "The real is what is independent of what you, or I, or anyone in particular may think it to be" (Scotus in De Wall, 2013, p. 127).

Simplico: So it is something objective?

CSP: Yes but I suppose that depends on what you consider objective. As I said earlier, this formulization does not exclude acts of mind, that is, it is not independent of thought. Mental events can be real even if their objects are not. Just think of a dream;

> The objects in a dream are not real, as they depend for what they are on what the dreamer dreams them to be. But the dream itself and the fact that those objects appeared to the dreamer are real, as they are what they are independently of what the dreamer, or anyone, may think them to be. (De Wall, 2013, p. 128)

In this sense, there is nothing independent of thought. All the concepts that constitute reality, that are meaningful and significant to us --- that have shown they possess practical bearings upon our lives --- are nothing other than the object of the beliefs of an indefinite community.

Simplicio: So is the community element necessary for knowledge seeking in general?

CSP: Yes, for community and culture are the mediums with which we decipher and make sense of our world, the medium in which we interpret and understand signs. Truth is nothing but an end of inquiry. It is a regulative ideal we must hold in mind as a necessary presupposition of inquiry. Inquiry is guided by the hope that "to every question there is an answer, which can be called the answer, that is, the final answer... which sufficient inquiry will compel us to accept" (CP 4.61).

Simplicio: Yes, and to reject this, to say that some questions have no answer, is to block the road of inquiry and effectively end knowledge seeking.

CSP: There is no greater offense to development.

Simplicio: So I suppose we much always be chasing this conception of truth as an end to inquiry, so that we can better contend with our environments, not so that we can ever reach this end.

CSP: Yes, let me provide you with a useful analogy:

> (T)he fact that I try to get well of each given bodily malady I may suffer from, is no argument that I am cherishing any hope to escape from every malady that I may suffer from. So the fact that I try to find the truth in respect to each doubt that presents itself involves no assumption on my part that there is any real truth about all questions. (Peirce in De Wall, 2013, p133)

To assert a closed truth like this is to fall into the trap of the logician, to adhere to a static and syllogising view of order.

Simplicio: Can I ask you directly what it means to make our ideas clear? In school they tell us this is the objective of learning, yet it seems a goal distant and maybe unachievable. We have seen that the attainment of obdurate and inflexible dictionary-like knowledge is not really learning at all.   I wonder if the end result of learning is just to be able to properly use a concept or idea in a particular universe of discourse and simultaneously recognize its potential to grow into other discourses; to see the essential openness of the signs we use and interpret, to recognize them for all their evolving potential. Maybe the discontentment I was feeling was really a result of how the objective was framed. To state that *clarity* is the goal of learning seems to harken after some definitive and petrified state that can never exist in a dynamic world?

CSP: To philosophize like you are doing is certainly to understand what it means to have clear ideas; to know what it means to know.   Maybe it would be constructive to view these ideas through a different lens. Quite directly, to make your ideas clear is to extract something (this something being an idea, some object/conception of thought) from the totality of our perception, what I call the *phaneron*, so that it optimally serves some cognitive purpose.

Simplicio: And what is this *phaneron* you speak of?

CSP: Phanersoscopy is the term I have come to privilege over the term phenomenology. It is an agglomeration of the Greek terms *phaneron* (what is visible or manifest) and *Skopein* (to view). Phaneroscopy is thus simply "the description of the phaneron." "The Phaneron is the collective total of all that is in anyway present to the mind, quite regardless of whether it corresponds to anything or not" (CP1.284).

Simplicio: I see the advantages to this word! Using this notion of the phaneron, with its

implicit all-encompassing totality, in place of phenomenon all at once dispels the myth of the passive subject who merely perceives pre-existing sensa (or phenomenon) that already possesses an objective organization.

CSP: Yes, for to even speak of Phenomenon is to speak of a "plurality of phenomenon's and thus already implies making discriminations within the totality that manifests itself" (De Wall, 2013, p. 36).

Simplicio: All we can ever do is address how we model our unique species-specific realities, to contend with what is present to us from the phaneron. I see that inherent within these three grades of clearness is an active subject who is actively assimilating, organizing, and accommodating to a world in flux. This is obviously why I had to experience these different levels of understanding myself; to walk through this labyrinth of understanding, and not just be shown a master plan.

CSP: Precisely, you, as student, must actively construct your own knowledge. Interestingly my encyclopedic memory storage tells me of a time when educators treated students as passive receivers of knowledge, that were not asked to engage and interpret; a time when pedagogy only required the first two degrees of clearness. Students were made to look into their personal experiences for an example of an idea or concept and then directed to apply this understanding to a formal definition. Historically most pedagogues stopped at this point and failed to provide students with a way of relating the recognized or cognized idea back to their experiences. Thus school learning remained in the school and knowledge was far separated from actual practice.

In other words they often failed to reach *pragmatistic* definitions; definitions that can influence beliefs that man is prepared to act upon.

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