Toward a pragmatic clarification of materiality and animacy: the materials of life and the life of those materials

Em direção a um esclarecimento pragmático da materialidade e animacidade: os materiais da vida e a vida destes materiais

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Abstract: Materiality or what some theorists prefer to identify as materials have increasingly become the topic of discussion and investigation. While these authors have taken pains to specify what they mean by such terms, the topic calls for greater clarification than it has yet received. This makes it an ideal candidate for the three-tiered clarification championed by C. S. Peirce in "How to Make Our Ideas Clear" and ever after used by him to render, for the purpose at hand, his own ideas adequately clear. Just as he took absolute certainty to be unattainable, he judged absolute clarity to be beyond our reach. Even so, he offered his pragmatic maxim as the highest level of conceptual clarification. For countless purposes, adherence to this maxim enables us to clarify our ideas adequately. While he is emphatic in pointing out the shortcomings of abstract definitions (the second or intermediate level of clarity), he is appreciative of the value of such definitions, of what are for the most part verbal definitions (for, in an abstract definition, we are translating a word or expression into other words). If we take the successful practices of the experimental inquirer, however, then we readily see the need to translate our words not primarily into other words but into habits of action. Moreover, the first level of clarity (that of tacit familiarity) is all too often slighted or altogether ignored. This grade of clearness is however far more important than commentators and, on occasion, even Peirce seem to appreciate. Hence, this essay is an attempt to clarify the meaning of materiality and cognate terms, using Peirce's suggestions for how to carry out this task. It highlights the need for pragmatic clarification, but without denigrating the value of either tacit familiarity or abstract definitions. My hope is to show, in a single stroke, the power of Peirce's methodological suggestions and the meaning of several elusive terms.

Keywords: Clarity (grades of). Form. Hylomorphism. Hylozoism. Life. Phenomenology. Pragmatism and pragmaticism. Synechism.

Resumo: A materialidade, ou o que alguns teóricos preferem identificar como materiais, vem sendo cada vez mais assunto de discussão e investigação. Embora esses autores sejam muito cuidadosos em especificar o que querem dizer com tais termos, o assunto exige maior esclarecimento do que recebera até agora. Isso faz com que seja um candidato ideal para o tríplice-escalonado esclarecimento proposto por C. S. Peirce em "Como tornar nossas ideias claras" e que daí em diante foi usado por ele para, diante do propósito em questão, tornar adequadamente claras suas próprias ideias. Assim como considerava inatingível a certeza absoluta, ele julgava, também, a clareza absoluta estar fora de alcance. Mesmo assim, ofereceu sua máxima pragmática como o nível mais alto de esclarecimento conceitual. Para inúmeros fins, aderir a essa máxima nos permite esclarecer nossas ideias de forma adequada. Embora ele seja enfático em sublinhar as limitações de definições abstratas (o segundo ou nível intermediário de clareza), ele aprecia o valor de tais definições, as quais são, na maior parte, definições verbais (pois, em definições abstratas, trata-se de traduzir uma palavra ou expressão em outras palavras). Se tomarmos as práticas bem-sucedidas do investigador experimental, porém, subitamente vemos a necessidade de traduzir nossas palavras não em outras palavras, mas em hábitos de ação. Além do mais, o primeiro nível de clareza (aquele de familiaridade tácita) é muitas vezes menosprezado ou ignorado. Este grau de clareza é, no entanto, de uma importância muito maior do que lhe é atribuído pelos comentadores, e por vezes, pelo próprio Peirce. Este artigo, portanto, é uma busca de esclarecer o significado de materialidade e termos cognatos, usando as sugestões de Peirce para cumprir essa tarefa. Sublinha a necessidade de esclarecimento pragmático, sem denegrir, porém, o valor de familiaridade tácita ou definicões abstratas. Espero mostrar, de uma só vez, a força das sugestões metodológicas de Peirce e o significado de alguns termos elusivos.

Palavras-Chave: Clareza (graus de). Fenomenologia. Forma. Hilomorfismo. Hilozoísmo. Pragmatismo e pragmaticismo. Sinequismo. Vida.

"We naturally make all our distinctions too absolute."

C. S. Peirce (CP 7.438)

1 Introduction

I want to seize this occasion¹ as an opportunity to explore two related topics. The first topic is methodological, while the second is substantive. The methodological topic is one with which virtually all students of pragmatism, simply by virtue of

¹ This paper was written in response to an invitation by Prof. Ivo Assad Ibri to present a paper at the 18th International Meeting on Pragmatism. It was, of course, revised for this journal. But its origin is worthy of note, since there is no better occasion than these meetings to provide the opportunity to present creative work rooted in historical scholarship. I benefitted greatly from a response to my paper by Márcio Alves de Fonseca as well as by those in the audience, especially, Rossella Fabbrichesi, Ivo Assad Ibri, Robert Innis, Cassiano Terra Rodgrigues, Cecilia Salles, Lucia Santaella, and Winfried Nöth. I could not respond to all of their concerns or incorporate all of the insights into my revision, but I have no doubt this version is better because of what they suggested.

having read C. S. Peirce's "How to Make Our Ideas Clear," will be familiar. It concerns the three grades of clarity (THAYER, 1973, p. 28-43; FISCH, 1986, p. 372; and COLAPIETRO, 2009). The substantive topic is however possibly not one with which such students will be acquainted, since it is more commonly discussed by anthropologists and other theorists than philosophers. It concerns *materiality* or, as some anthropological theorists prefer (e.g. INGOLD, 2011 and 2013), materials.² The methodological and substantive topics are, as already indicated, intimately related to each other. I want here to put pragmatism to work, specifically, to use Peirce's nuanced approach to conceptual clarity as a means of rendering materiality and cognate notions clearer than they have been rendered thus far. Above all, my aim is to offer a pragmatist clarification of these notions. While it is understandable, most of the scholarship on Peirce is primarily expository; there is, in my judgment, not enough effort to appropriate and, then, to extend creatively his insights. This is unfortunate, because he desired more than anything else co-inquirers, not expositors and certainly not disciples: he desired thinkers humble enough to read him receptively but bold enough to commit themselves to deepening and extending his insights. The topic of materiality calls for clarification and Peirce's approach to this task begs to be deployed here.

A pragmaticist clarification of what we *mean*, in various contexts, not least of all, in the context of art, by *materials* marks a decisive break with the hylomorphic model so influential for over two millennia.³ The conception of matter (or materials) conceived as so much *inert, amorphous stuff*, rendered determinate, dynamic, and intelligible by the imposition of form, violates the principles of phenomenology as much as those of pragmaticism.⁴ As phenomena, materials rebuke this conceptualization; as integral parts of human practice, they suggest something radically different. The conception of a lifeless, unformed stuff, that "out of which"⁵

- 3 Peirce makes use of this model. See, e.g., NEM 4:294-300. Where Peirce is most Aristotelian is in his reclamation of teleology, but this can, I would argue, be disentangled from the hylomorphic model.
- 4 My concern in this paper is not so much with Peirce's early pragmatism, though this is hardly outside my purview, as with his mature reformulation of his pragmatist position (a version for which he proposed the name *pragmaticism*). Hence, I will tend to use pragmaticism and its cognates to stress this facet of my concern.
- 5 This is intended as a translation of the Greek expression Aristotle used to designate the material cause of natural beings. It is telling that his paradigm is art (say, the sculptor crafting a statue *out of* marble). It is also telling that the Greek word *hyle* means wood or timber. The felled tree no less than the living one, the extracted lumber no less than the felled tree, has its intrinsic qualities, characteristic resistances, and constitutive dispositions (in other words, its firstness, secondness and thirdness). No matter how rudimentary are the materials we encounter, they are irreducibly phenomena exhibiting such qualities, resistances, and dispositions.

² My thinking about materiality and materials has been deeply influenced by the work of the anthropologist Tim Ingold. I have found two essays in particular, "Materials against materiality" (2011) and "The materials of life" (2013), especially illuminating. While Ingold does not draw upon Peirce or more generally pragmatism, he is a philosophically literate anthropologist who makes creative use of Heidegger, Merleau-Ponty, Deleuze, and other philosophers.

determinate beings are made, is an abstraction,⁶ but it is neither altogether wellfounded nor heuristically fruitful. This claim needs to be qualified, for to some extent this model is founded on experience and, beyond this, has proven to be somewhat fecund. Better put, the distinction between unshaped materials and definitive forms has served and can continue to serve inquiry, but this distinction has been drawn too absolutely. The result is that theorists are driven to positing formless matter and immaterial forms. Please note: such matter and such forms are theoretical posits, not observable affairs. For the only materials with which we are phenomenologically familiar are inherently dynamic and dispositionally identifiable (CP 4.157; see also Peirce on meaning of lithium, CP 2.330).

If we begin with those materials in all their messiness and heterogeneity.⁷ that is, if we began phenomenologically, with materials as they disclose themselves to us in our various dealings with them, then we would be in a better heuristic position than we are in when we theoretically posit formlessness and inertness as the defining traits of *materia prima*. Indeed, the very notion of first matter (or *materia prima*) is, from a phenomenological perspective, deeply suspect. The alleged exigencies⁸ driving us to posit such an abstract concept are hardly comparable to those issuing from the phenomena; moreover, the eventual stultification of thought to which this utterly abstract construal of matter leads us suggests conceiving materiality differently than this traditional understanding. Formlessness is not an absolute or intrinsic feature of materials, being never anything more than a *lack* relative to a purpose. Whatever [phenomena] are encountered in experience, is matter fashioned in some manner, determinate in some respects. The marble out of which the sculpture is chiseled is not actually amorphous (it unquestionably has a determinate shape and size) and, moreover, its dispositional properties (most obviously, its hardness, but also its fault lines and other traits) play an essential role in how the sculptor uses this stuff to craft a statue.

The self-understanding of Michelangelo suggests nothing less: rather than imposing a form upon matter, he took himself to be extracting the form inherent, but hidden in the stone itself. In general, the habits and competencies of the artist are themselves shaped and reshaped in that individual's attempt to use the qualities

⁶ Of course, there is nothing inherently deficient or deceptive about abstractions, though there we can all too readily and deeply be deceived by our reliance upon, or use of, abstractions. See William James on "vicious intellectualism" (JAMES, 1977, p. 301-302, also p. 325). See also Peirce on concrete and abstract words (e.g., NEM 4:160).

⁷ We should be willing to return to "the motley assortment of odds and ends" (INGOLD, 2013, p. 17), rather than begin or insist upon our all too neat classifications and all too sharp demarcations.

⁸ If there were not a primordial stuff upon which substantial forms imposed themselves and thereby gave rise to an individual substance, then substantial change, Aristotle and the scholastics following him contended, would not be possible. In order to do justice to coming-to-being and ceasing-to-be in the sense in which a new organism comes into being or ceases to exist, matter has to be something other than the observable stuff of everyday life. So the traditional argument goes. This is a curious mix of an attempt to do justice to phenomena (specifically, coming to be and ceasing to be) and a flight to something far removed from any phenomena with which we are familiar (primordial, inert, formless stuff).

and dispositions of this determinate material to craft an art work. The process of doing so is far more an instance of skillfully *drawing out of* dynamic materials what is constitutive of them than externally imposing a form on these materials. The *dynamism* of even what we commonly designate as inanimate materials might be of such a character that the distinction between inanimate and animate beings should not be drawn too sharply. We do indeed tend to make our distinctions too absolute (CP 7.438).⁹ In addition, what is true of signs (they are inherently alive) might to some extent also be true of all materials whatsoever. If this is so, *hylozoism* is not a meaningless vocable but rather an intelligible and much needed conception (EP 2:375). By insisting on this, we are not committing ourselves to animism as it is ordinarily understood (INGOLD, 2013); we are only treating materials as phenomena and, hence, taking the manner in which these phenomena disclose themselves to us in our experience to provide invaluable clues for framing an adequate conception of those materials. To get at these phenomena, precisely as phenomena, however, we need to be critically attentive to distinct modes of conceptualization. Specifically, we need to take into account how these modes can both facilitate and frustrate our efforts to confront phenomena as phenomena. Phenomenology (or phaneroscopy) eventually issues into an array of conceptions, just as the processes by which this and other disciplines generate conceptions are themselves phenomena. We need to clarify our conceptions of phenomena and materials, not least of all by treating the modes of conceptualization as phenomena. We need especially a finely descriptive account of these distinct grades (or levels) of conceptual clarity. While up to this point I have, by emphasizing phenomenology, somewhat reframed Peirce's endeavor in "How to Make Our Ideas Clear" and other texts, it is this undertaking, mostly as he originally framed it (i.e., as articulated in "The Fixation of Belief" and "How to Make Our Ideas Clear"), to which we must attend next. Put simply, we must now turn to his pragmatist doctrine regarding the distinct levels of conceptual clarity. Peirce's pragmatism and, even more explicitly, pragmaticism is a phenomenologically animated and oriented project. But, then, his phenomenology is itself a pragmatically informed and directed undertaking. His pragmatism no less than his phenomenology has, as part of its purpose, the aim of assisting us in perceiving what stares us in the face. This entails not allowing theoretical preconceptions to obstruct "naïve" perception. The artist sees with the eyes of a child and, in turn, the phenomenologist sees with the eyes of an artist (EP 2:147). To see this (also, to see this), nothing is more instructive than recalling Peirce's own example.

⁹ Peirce's synechism might be described as an attempt to see the most fine-grained distinctions along a continuum where others see absolute breaches and unbridgeable divides (e.g., outer and inner, self and other, nature and culture, body and mind, nature and history, human language and the communicative systems of other species, autonomy and heteronomy, causes and reasons, to name only some of the distinctions too absolutely drawn by his predecessors and contemporaries). I am inclined to think that Ingold's distinction between agency and animacy is all too sharp (see, e.g., INGOLD, 2013, p. 96-97) and, as illuminating as I find his work, this dualism needs to be deconstructed as much as the other ones just noted. To place too much stress on agency inclines us to what ultimately is a fantastic, at least, a grossly distorted, ideal of self-control or autonomy, while putting too much emphasis on animacy threatens to undercut the very possibility of agency. A delicate balance is required here.

Our task encompasses both attending painstakingly to the phenomena of our practices (to our practices as themselves phenomena) and responding conscientiously¹⁰ to the theoretical demands, including the exacting demands of conceptual clarification. Familiarity breeds clarity even more often than contempt, though the mode of clarity bred by familiarity might, in effect, also breed contempt in the minimal sense of a tendency to neglect or overlook the salient features of familiar phenomena. "When we wake to the fact that we are thinking beings and can exercise some control over our reasonings [or thinking], we have," Peirce insists, "to set out upon our intellectual travels where we already find ourselves" (CP 8.144). But where is that? Peirce could not be more explicit: "Now, this home is the parish of precepts. It is not inside our skulls, but out in the open. It is the external world that we directly observe." In identifying our point of departure as a "parish," Peirce is implying just how narrow it is. But, in stressing that it is not initially and certainly not invincibly a private sphere, he is in addition implying that the parish of our precepts can be indefinitely expanded: we are invited by the most familiar phenomena to conjectures leading not only to the "wildest dreams"¹¹ but also to observations of phenomena of various kinds, commonplace no less than recondite.

2 The grades of clarity

No methodological proposal is more fundamental to Peirce's philosophical project than his triadically ordered series of tacit familiarity, abstract definition, and pragmatic clarification (that is, his three grades of conceptual clarity). Moreover, none is likely to be more familiar to students of pragmatism than this one. But the very familiarity of this proposal almost certainly works against the depth of understanding needed to appreciate adequately what Peirce is claiming. Familiarity is more likely to breed credulity than contempt (DEWEY, 1917, MW 10, 23). We might add here: it is at least as likely to generate facile presumption as unwarranted trust. We are confronted with a seemingly simple proposal when in truth we are being challenged by Peirce with a very sophisticated one.

This essay is, in part, a reflection on the theme of familiarity, a theme all too often obscured or hidden by just how familiar we are with Peirce's essay and, in addition, by how quickly he passes over this topic. We are, however, not nearly as acquainted with what Peirce *means* by familiarity as we need to be. It is a far more important, subtle, and indeed elusive matter than we ordinarily appreciate (INNIS, 2010, Ch. 1). My reflections on this topic are informed by a rather wide

¹⁰ In a letter to Lady Victoria Welby, Peirce revealed: "I regard Logic as the Ethics of the Intellect – that is, in the sense in which Ethics is the science of the method of bringing Self-Control to bear to gain our Satisfactions" (SW 415; also SS 112). One of Peirce's most important manuscripts is entitled "Reason's Conscience: A Practical Treatise on the Theory of Discovery, Wherein logic is conceived as Semeiotic" (MS 693). It is not an exaggeration to say that, for Peirce, proceeding methodologically (or logically) is, at least roughly the equivalent of acting conscientiously (or deliberately).

¹¹ After quoting one of Alfred Lord Tennyson's poems (" [...] maybe wildest dreams/Are but the needful prelude of the truth," Peirce interjects: "But I doubt the *maybe*" (SW 233). That is, he is inclined to see the *wildest* dreams of experimental inquirers to be the necessary "prelude of the truth" (see, e.g., CP 1.46-48).

array of contemporary theorists, most prominently, John Dewey, Martin Heidegger, Maurice Merleau-Ponty, Pierre Bourdieu, Michel de Certeau, Michel Foucault, Bruno Latour, Michael Polanyi, Hubert Dreyfus, Hans Joas, and Tim Ingold. Each one of these theorists has assisted me in conceiving more adequately the invincibly tacit yet finely nuanced dimension of human experience and activity. It is easy to miss that what Peirce identifies as the most rudimentary level of *conceptual* clarity would not likely be identified by many thinkers as an instance of conceptuality at all. We tend to have an intellectualized (from a Peircean perspective, a highly *over*intellectualized) conception of conceptuality. What Peirce identifies as familiarity is, in contrast, a deeply somatic competency or set of competencies. Even before our extrauterine existence, we are immersed in signs, instinctually putting forth, and responding to, them. In our extrauterine existence, however, the occasions for "uttering" and "interpreting" signs increase prodigiously: we very quickly become semiotically adept.

In his quest of quests, the forms of familiarity with which Peirce was preoccupied are those pertaining to our shared practices and (for the most part) the accredited competencies (Polanyi) afforded by the immanent demands of sustained participation in these communal practices. More than anything else, they concern, quite apart from consciousness or intention, our ability to put forth ("*utter*"), and respond to ("interpret"), signs, to use signs competently in the shifting scenes of our immediate engagements (e.g., crossing a street, feeding a very young child, or greeting a friend).

As Peirce stresses, "we must be on our guard against the deceptions of abstract definitions" (CP 7.362). More than a few times, however, he was himself ensnared by the deceptions of such definitions or, at least, insufficiently resolved to push a specific discussion to the level of pragmatic clarification. This is nowhere more apparent than in this theory of signs. There is a deep irony here. While his theory is pragmaticist, especially in its more mature formulations, there is even in his later years a tendency to rest all too content with all too abstract definitions. In a letter to Victoria Lady Welby, however, he defines a sign as: "the essential function of a sign is to render inefficient relations efficient – not to [directly or immediately] to set them into action, but to establish a habit or general rule whereby they will act on occasion" (SW 390). In my judgment, this is one of a more explicitly *pragmatic clarification* of what *sign* means that Peirce offers. Most of the definitions of sign which he crafted, and hence, most of those his expositors quote, are more or less absent definitions. One might object and insist that there is, at least, implicit in these apparently abstract definitions the *nisus* toward a pragmaticist clarification. I would readily concede this. The verbs used in these definitions (e.g., stands for, represents, and mediates) can be interpreted either themselves in dispositional terms or, more likely, in such a way that their connection with dispositions is made plain. At most, this would imply that such formulations as Peirce offered are only implicitly pragmaticist. I am almost inclined to say that the form of Peirce's semeiotic, with such prominence given to abstract formulations and definitions, is at odds with its substance, but in doing so would I not be deploying the very model I am contesting? The principal point is that Peirce's theory of signs itself arguably relies too heavily on abstract definitions, leaving all too implicit the pragmatic clarifications of its basic terms. Whether or

not these definitions snared Peirce in deceptions or confusions is another matter. But, certainly, his semeiotic would have been more manifestly pragmaticist had he taken greater pains to provide pragmaticist clarifications of his basic terms (COLAPIETRO, 2004b).

What we need more than anything else is a wide, deep, and nuanced familiarity with the materials being investigated, be these materials the phenomena of signs or something else. Given our training and likely the kinds of temperament drawn to certain disciplines, the formalist impulse is likely to ride roughshod over intimate familiarity with a wide range of potentially relevant matters. To take but one example, most students of aesthetics would be better off studying in greater detail art history than current efforts to craft an abstract definition of art (ideally, a definition invulnerable to counterexample).

3 The materials of life and the life inherent in those materials

James was right. Philosophy cannot be too refined without betraying ideals of greater importance than refinement, sophistication, and technique. There is often something crude and earthy about the best philosophy – the artisans to whom Socrates appeals provide models for nothing less than the *craft* of inquiry (cf. HEIDEGGER, 1976, p. 15-25; DUSTIN and ZIEGLER, 2005, p. 167-92).

There are different ways of *thickening* philosophy.¹² Within pragmatism itself, this is evident. For James, the best way to insure thickness is never to lose sight of the human stakes at the root of even our most technical disputes. For Dewey, the best way to guarantee thickness is to attend to the various contexts, especially the contemporary crises, in which human actors are fatefully entangled. For Peirce, however, inquiry itself needs to be thickened. His methodological proposal regarding pragmatic clarification was an attempt to do just that. We need a theory of inquiry as thick and textured as the practices of inquirers in such fields as physics, astronomy, chemistry, biology, and numerous other arenas of experimental investigation.

Put in a slightly different way, the progeny of Hegel are committed to concreteness. At any rate, philosophy comes alive when Peirce, Heidegger, Wittgenstein, and others point us to the concrete details of our shared practices and the largely overlapping matrices out of which such practices sprung.

To some extent, we cannot help but define words in terms of other words. Indeed, to a great extent, this is unobjectionable. But it is critical at some point to break out of the circle of words, though without imagining that we have thereby escaped from the universe of signs. Words are themselves dispositions and, moreover, they are bound up with the dispositions of the very objects and events which we by means of words strive to identify, describe, and explain. Our rough-and-ready familiarity with hard things is derived from an apprenticeship involving skinned knees, bruised muscles, and blows to our heads. The tuition for such "intuitive" clearness (MS 649) was in our infancy and early years very high.

Our dispositions vis-à-vis those of the materials and conditions – this complex, dynamic, and evolving relationship – ought to be the foci of our concern.

¹² See JAMES, 1909 [1977], especially p. 64, but also 81, 149.

The image of the potter is an ancient and venerable one. If we are made in the image of God, that of God has been in the image of the potter (*Genesis*)! In any event, the inquirer in the Peircean sense is, in effect, made in this image. The properties of clay do not reveal themselves except to hands endeavoring to shape it. But, then, hands, eyes, and much else *take shape* – acquire a more or less integrated set of competencies – by direct engagement with sensuous materials. The clay shapes the hands as the hands attempt to shape the clay. The clay *does* little to shape the hands in their outward form, though even here the influence is often far from negligible; but the clay does much to assist the artist in drawing out *its* inward possibilities.

The experimental inquirer no more than the humble artisan ever occupies the exalted position of a *sovereign subject*, able to extricate itself from the flow of forces and impose, from on high, forms upon nature. Like such an artisan, such an inquirer is in numerous respects on the same level as the materials with which the individual is entangled. Natural materials afford countless opportunities for creative collaborations between themselves and ingenious organisms. We are encouraged to conceive "crafts, including speechcraft [i.e., our use of language], as a natural process *in* which the craftsman participates and *co*-operates, but does not dominate: the craftsman gives direction, to be sure, but then so do the materials through their own propensities" (RANSDELL, 1980, p. 155). So conceived, "craft is only a special case of growth" (ibid.). Aristotle distinguished nature and art by charactering nature as an immanent principle of motion and rest, but art as an extrinsic principle (see especially his *Physics*). On Ransdell's account, however, art is not so sharply set off from nature; indeed, art is taken by him to be a development within nature. Indeed, Peirce's theory of signs, as Ransdell appreciated as well as anyone else, was designed to destroy the dualism of nature and culture and, more specifically, that of nature and art. In the same breath, then, the distinction between nature and art is to be transfigured synechistically along with the distinctions between nature and culture, form and matter, making and knowing, animacy and materiality.

As Tim Ingold suggests, making "is a process of correspondence: [it is] not the imposition of preconceived form on raw material substance, but the *drawing out* or *bringing forth* of potentials immanent in a world of becoming" (INGOLD, 2013, p. 31; *emphasis added*). This makes of materials themselves processes. In our world, "every material is such a becoming, one path of trajectory through a maze of [other] trajectories" (ibid.). Nothing accords better with our experience of materials than such a relational, processural, and (by implication) dispositional conception of them.

In what must seem to many readers to be a surprising turn, Peirce's hylozoism (his claim that matter is anything but inert: it displays to some degree the defining properties of living beings) weaves its path to the point of intersecting with a path forged by Gilles Deleuze and Felix Guattari. As Ingold notes, "materials evince [or reveal]," these theorists insist, "a '*life proper to matter*'" (INGOLD, 2004, p. 454; *emphasis added*). The life proper to organisms is one thing, that proper to so-called inanimate matter is another, but the distinction between the animate and the inanimate needs to be redrawn (TOULMIN and GOODFIELD, 1962, p. 374-79; see also, CAHOONE, 2013, Ch. 6) and redrawn in such a way that both are

acknowledged for what they are – instances of *lively* becoming.¹³ The forces and flows of materials *are*, pragmatically clarified, what these materials *mean*.

"It is the artisan's desire," Ingold asserts, "to see what materials can *do*, by contrast to the scientist's desire to know what it *is*" (ibid.). From a Peircean perspective, however, whatever contrast there is between the artisan and the scientist, it cannot be one based on artisans being desirous of discovering what materials can *do*, in opposition to scientists being focused on disclosing what something *is*. In Peirce's judgment, the scientist joins the artisan in discovering what things are by observing what they are disposed to do. The scientist *is* the artisan, though the artisan liberated from narrow concerns and specific outcomes. Science is itself an art, the *art* of inquiry (DEWEY, LW 1, p. 268) and, as such, it can only be the work of an artisan, one animated and directed by a *feel*, instinctive and acquired, for the materials being explored.

The life proper to elements, rocks, planets, coral reefs, rain forests, solar systems, and of course the myriad signs with which we have a tacit but deep familiarity is the proper object of inquiry. Hylozoism is hardly a meaningless vocable (EP 2:375). It is rather a significant hypothesis bearing upon the most fundamental questions of experimental inquiry. It intimates a trajectory through a maze of trajectories, a maze so bewildering that we are bound to get lost, countless times.

The life proper to signs, so evident in that proper to inquiry, is bound up with the life proper to both supposedly inanimate things and manifestly living beings. The highly developed competencies of the self-critical experimentalist are rooted in the irreducibly vague "instincts" of the human organism (human instincts being simply the innate disposition of the human organism). On the side of the inquiring subject, the dispositions of greatest salience are competencies, abilities, and capacities. On the side of the investigated object, the dispositions of even "inanimate" beings exhibit an irrepressible dynamism.

Making is much closer to a process of cultivation than we ordinarily appreciate. We tend to assume it involves imposing an external form on so much inert stuff, whereas it involves a delicate collaboration with materials, at once recalcitrant and pliable. The hands of the potter shaped by the clay and, in turn, the clay shaped by these hands provide us with a concrete image of what Peirce intended by concrete reasonableness. Such reasonableness designates the *continual growth of creative collaboration* between (*to highlight only one critical relationship*) the life proper to matter and that proper to intelligence.

On the account I am advocating, then, the task of *drawing out* the potentiality of a flower, as the gardener does by cultivating the optimal conditions for growth,

^{13 &}quot;If humans and [other] animals are capable – as they manifestly are – of mental and vital activities, their material organization must, as surely as that of the solar system, be of a kind that makes these activities possible. Aristotle and Galen assumed no less!" (TOULMIN and GOODFIELD, 1962, p. 377). It is especially noteworthy that these authors take the next step: "If the last absolute distinctions between the inorganic and the organic are fading and grading, into differences of degree, that is another indication that our theories of matter [or materiality or materials] may be reaching maturity" (ibid.). In this and many other respects, Peirce's writings illustrate the most a theorist can hope for – hypotheses "in the general line of growth of scientific ideas" (CP 1.7). Hylozoism might be one such hypothesis.

is akin (if only remotely akin) to the task of drawing out the potentiality of materials seemingly devoid of life. Painstaking, solicitous care for the other, for the other's sake, is a necessary condition for the creative collaborations integral to concrete reasonableness.

The first task of the philosophical inquirer is phenomenological, for it demands widening and deepening our *familiarity* with what will always be, in some respects, the most familiar of phenomena (e.g., our own bodies, the flow of time, the conversation of gestures, and a sense of kinship with beings other than ourselves). The very familiarity of such phenomena however tends to work against a thicker acquaintance with them. Superficial familiarity tends to render suspect the abiding need for deeper familiarity. Presumption blocks the road of inquiry. The phenomenological task cannot be executed once and for all. This task is one to which we must return, time and again. At every step along the way, phenomenological attention is required. What such attention attunes us to is the ceaseless play of intersecting forces and the lively processes of creative collaboration from which whatever is admirable, valuable, or simply noteworthy evolves or erupts upon the scene. Intersecting continua furthering and frustrating, intensifying and diverting, the trajectories of the various continua involved, exhibit a career, a life, both in themselves and in their interplay. To make sense of reality, as it is disclosed in our experience, demands us to attend to the phenomena of such continua. Each continuum has the capacity to generate innumerable continua (to take only one aspect of a physical object, such an object *qua* visible might be seen countless times and each instance of seeing is itself a continuum) and, in addition, each continuum can actualize itself only in and through its intersection with other continua. For instance, the river carves its path to the sea and, in doing so, the rapidly altering flux of water intersects with the relatively invariant materials of the earth. Such phenomena are anything but inert stuff in the tyrannical grip of purely mechanical laws. At every turn, they exhibit properties and propensities – indeed, *powers* - of their own, not least of all their powers to assert themselves and to generate a series of interpretants on the basis of which these continua can be, in principle, identified, described, and in some fashion rendered intelligible. Insofar as they have the intrinsic power to generate innumerable series of interwoven interpretants, intelligibility no less than *haecceity* characterizes them. These phenomena exhibit irrepressible spontaneity, continuous resistance, and, at least to some extent, hidden potentialities.

4 Conclusion

"What the true definition of Pragmatism may be," Peirce confessed in 1903, "I find it very hard to say; but in my nature it is a sort of *instinctive attraction for living facts*" (EP 2:158, *emphasis added*). His familiarity with such facts disposed him to be deeply appreciative of the life *inherent in* what most of his predecessors and contemporaries deemed so much inanimate and even inert stuff. The most malleable of materials possess their own intrinsic properties and propensities, qualities and powers, just as the seemingly most unyielding of materials can be made pliable (e.g., there is a temperature at which steel melts into a liquid). One cannot do anything at all with a material such as clay, since no material lacks all resistance; so, too, one can do far more with steel than one might imagine, since the possibilities for transformation are as much a property of steel as is the actuality of its hardness.

We tend to draw most, arguably all, of our distinctions too sharply. One such distinction is things and the materials out of which things are made. These things are so many materials, more or less integrated into an assemblage able to maintain itself across time for an indefinite duration, just as these materials are, in themselves (in their firstness), if only in some respects, so many things, so many more or less determinate continua, however loose knit and easily rent asunder. Barely determinate materials no less than fully actual things hold their own in an unimaginably complex meshwork of intersecting continua, each one of which holds within itself a countless number of continua (if only in the form of dispositions). Put more simply, these materials, no less than things, crowd out a place for themselves in "a theatre of reactions" (CP 6.212). While their brute reactions are just that, they are, more often than not, *indicative* of the tendencies of those materials and things. To a degree, and in ways we never fully ascertain, these reactions flow from, and into, the dispositions interwoven into the very being, also the reality, of these materials and things. The chemist dissolving a certain kind of crystal in a certain kind of liquid is, at admittedly a very high level of generality, doing something akin to what, say, the painter is doing when mixing materials together. Of course, it is important to see that, in both cases, the experimentalist (the scientific inquirer and the artful fabricator) are in the *mix.* They (especially the scientist) Artists and scientists might appear to themselves and others to stand aloof from the processes in which they are, in truth, inextricably entangled. They are not sovereign subjects separate from the dynamic interplay of sensuous materials; rather they are entangled participants in an open-ended process wherein the twists and turns of intersecting continua disclose, often surprisingly, the qualities, resistances, and dispositions of one or (more often) more of these continua. A thing is a cluster of habits of reaction (Peirce). So, too, are materials. though what we call *materials* tend to be more loosely knit clusters. To work toward an adequate conceptualization of these or any other phenomenon, tacit familiarity and formal definition have ultimately to serve us in framing a pragmatic clarification. These involve the specification of the habits of specific things and materials vis-à-vis the habits of other things and materials. If we can properly ascribe life to signs, this is ultimately because we must ascribe life to the things and materials functioning as signs. The vision of matter as so much amorphous, inert stuff to be formed, within limits, by a power external to this stuff needs to give way to inherently dynamic and determinately formed materials exhibiting functions at least remotely analogous to living beings. That is, as hylozoism implies, matter is ontologically closer to a living animal than to anything else imaginable. Of course, such a claim will strike most people today as implausible, if not ridiculous.

However this may be, a guess at the riddle of the cosmos ought not to make life an ontological impossibility or even a complete anomaly (IBRI, 2009). Even granting a dramatic sense of emergence, the difference between the inanimate stuff from which living beings emerge and these living beings is, from a Peircean perspective at least, not an absolute one.¹⁴ As great as it manifestly is, the continuity between the

¹⁴ The accent ordinarily falls on feeling rather than life, hence, on panpsychism rather than hylozoism. A living being is by definition sentient, however rudimentary is its capacity

animate and the inanimate is much like that between the mental and the material. There is no absolutely sharp line of demarcation between the animate and the inanimate distinction any more than there is between mind and matter. Just as matter is effete mind, so, too, is the inanimate simply a name for the more quiescent forms of animacy. But the more quiescent forms are hardly inert. Following Plato, Peirce takes power to be one of the most apt names of Being and the power in question is, even in its most attenuated and fragile forms (i.e., its *seemingly* ineffectual forms), the power of things or materials to maintain themselves across time, in a ceaseless conflict with other existents.

Matter is forming-giving in a radical sense: at the deepest root of materials, there is an impulse toward self-organization, self-maintenance, and self-modification (CAHONE, 2013, p. 58, p. 79-80, p. 131-32). That is, there is a set of propensities at least remotely akin to the defining traits of living animals. Such, at least, is the *meaning* of materials, pushed to the level of pragmatic clarification (at least, such as I happen to envision the trajectory of such a process of clarification).

Matter and materials indeed matter and they matter above all because their mattering is not reducible to brute reactions but encompasses propulsive habits. In innumerable instances, materials in their qualitative immediacy, brute facticity, and constitutive dispositions are stuff with which we are intimately *familiar*. For some purposes, in some instances, we can frame abstract definitions of materials. Finally, we can pragmatically clarify what they mean by specifying as many of their dispositional properties as our experience and ingenuity have enabled us to discover. Nothing replaces an "intuitive" or "instinctive" feel for the materials with which we are dealing. But pragmatic clarification *can* assist us in cultivating a fuller and finer attunement between our habits and those of the things and materials with which we are experientially familiar. The translation of meaning into abstract concepts and linguistic signs is but a way station on an interminable journey, a station to which it is profitable to circle back time and again, but not one in which we ought to become too comfortable, for too long. For a Peircean pragmatist, the mode of journeying most rewarding is the one in which we seize timely occasions to break out of the circle of words. This mode drives us toward the ever more expansive and explicit translation of meaning into dispositions of action. The limited and tacit habits constituting our familiarity, the first grade of clarity, is the soil out of which such an ever more expansive and explicit translation might grow, but the pragmatic ramification of meaning is clearly higher than the tacitly familiar sense guiding us in the shifting scenes of everyday life. Even so, the form of each of these levels stands in marked contrast to the second grade, since tacit familiarity and pragmatic clarification are first and foremost functions of habits, not a string of words. While habits have the generality of words, they have the solidity of bodies and potentially the force of actions. Like embodied words, which are after all embodied habits, the habits on which pragmatism turn are not our disposition to say this, in these circumstances, but to *act* in these ways, when dealing with these materials. As important as linguistic formulae are, dispositions and competencies, whether at the level of tacit familiarity or at that of pragmatic clarification, are ordinarily more important. We do not

to feel anything at all. Even so, it might be profitable to shift attention from questions of sentience to ones of animacy or aliveness.

adequately know what we are talking about if we do not know either what we are doing or what our words imply in the way of what, given certain motives, we ought to do. At the level of abstract definition, the connection between our words and our dispositions to act typically becomes attenuated, often extremely attenuated. But, then, at that of pragmatic clarification, this link is rendered more explicit, more intimate, more substantial, more flexible, and more encompassing than it is at the intermediate level of conceptual clarification. It is as though the habits at the level of tacit familiarity have been transformed by the tutelage of disciplining abstractions. More precisely, this is what has taken place. The level of tacit familiarity is no more fixed than the forms of abstract definition. The growth of signs and, specifically, symbols is nowhere more pragmatically salient than in the history of these habitchanges, a history in which the most rudimentary level of conceptual awareness is transfigured by evolving competencies (COLAPIETRO, 2012; POLANYI, 1962, p. 95-100; INNIS, 2010, Chapters 1 & 2). This level shifts (in a sense) downwards as our habits change, as our competencies become, at once, more deeply rooted in our ingenious bodies and more intimately integrated with one another.

The materials of life indeed intimate, though they hardly in themselves prove, a hypothesis quite deeply at odds with the reductivist, materialist, and mechanist biases of our time, but not necessarily in conflict with some of the most important trajectories in various scientific fields. For the materials of life intimate the life inherent in materials themselves, one inseparable from the life inherent in signs and especially symbols.¹⁵ The *animacy* displayed by materials is a function of the conjunction and entanglement of materials with each other. It is no metaphor to say these materials are dancers' bodies. The performance of dancers helps us to discern, even at the level of materiality, the dance of being. We know of no *zõo* animal capable of sustaining itself except those continuously supported and sustained by the materials of its ambience. Why would the most primordial forms of protoorganisms be any different?

As critical as it is to draw distinctions between mind and matter, (more general) between form and matter, conscious and unconscious mind, animate and inanimate beings, we should draw them synechistically. That is, we should take care not to make any of our distinctions too absolute, but rather try to imagine continua on which the contrasting terms are situated. The stultification of thought turns out, more often than not, to be an instance of self-stultification. In positing an absolute distinction between, for example, form and matter, the animate and the inanimate, conscious and unconscious mind, we have not only rendered the relationship between the contrasting terms inexplicable. We have also gone some distance toward rendering the terms themselves (matter, mind, the living, the lifeless, and much else) unintelligible.

C. S. Peirce was unabashed in his commitment to intelligibility. As a result, he was firm in his commitment to the principle of continuity. This commitment

¹⁵ "This appears," Peirce stresses, "mysterious and mystical simply because we insist on remaining blind to what is plain, that there can be no reality which has not the life of a symbol" (NEM 4:262). Elsewhere he writes: "A symbol may have [at least] a rudimentary life, so that it can have a history, and gradually undergo a great change of meaning, while preserving a certain self-identity" (MS 290 [1905]; quoted by SHAPIRO, 1991, p. 92).

prompted him to see the familiar in an unfamiliar light and, in turn, the unfamiliar in a potentially illuminating, and thus, familiarizing way. When we are successful, our habits become more finely and fully attuned to the habits of the materials with which we are dealing. The growth of such attunement is, in at least its most basic sense, all Peirce means by the continual growth of concrete reasonableness. There might not be much, if any, evidence to support his claim that the growth of such reasonableness is an integral feature of cosmic evolution. But, then, nothing precludes this possibility.

Even in the most disciplined phases of his theoretical inquiries. Peirce displayed (to use his own words) an "instinctive attraction for living facts" (EP 2:158). We might object that instinctual inclinations have no place in disciplined inquiries and, moreover, facts as such are not and indeed cannot be "living." We however might truly pause and carefully consider: this author chose his words with utmost care and, undaunted by even the seemingly implausible implications of his most meticulously crafted assertions, at least provisionally entertained those implications. Hylozoism is a case in point. Would we not be better off being animated by such an audacious spirit of inquiry than being constrained by a prematurely critical assault on conjectures dismissed upon their introduction? Would not the materials with which we deal in the various domains of human engagement, ranging from the most immediately practical to the abstractly theoretical, be given a chance to disclose themselves, in their irrepressibly dynamic character, more fully? Would we not thereby attain greater conceptual clarity, at all levels, regarding the materials ready to hand? And would we not, at the highest level of clarity, not display at once greater command over our thought and deeper receptivity to runs counter to even the most efficacious habits of our evolving rationality (ROSENTHAL, 1986, p. 101, also p. 143, p. 157, and p. 203; also, POLANYI, 1962, p. 195-202)? Is not the fluency of action the most telling indication of having attained the highest level of conceptual clarity?¹⁶ Finally, does not such fluency itself forcefully indicate the operative presence of nuanced, integrated, and variable habits (i.e., concrete reasonableness in its most concrete manifestation)?

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¹⁶ In *The Main of Light*, Justus Buchler asserts: "To get to know [anything] is to make a certain kind. To know, to have knowledge, is to have acquired a certain kind of power. For the gain is not a gain if it cannot be exemplified on more than one occasion. [...] Generally speaking, we get to know (or gain cognitively), in the sense of acquiring and exercising a power," when we can assimilate or manipulate something in accord with our purposes. See Beth J. Singer's explication of Buchler's conception of knowledge (1983, 130-35). This does not subordinate thought to action but implies that thought is itself an instance of conduct and the fulfillment of thought is (to use Buchler's expression) some more or less discernible "cognitive gain." I am disposed to argue that, in Peirce's pragmaticism, we encounter a conception of knowledge akin to Buchler's.

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