

Two Aristotelians: Peirce and Ravaisson

1.

It is a merit of historian Arthur Lovejoy's unorthodox engagement with the pragmatists to have first called attention to their convergences with that group of Nineteenth-century French metaphysicians, generally called "spiritualists", who are mainly remembered today for the decisive influence they exerted on Henry Bergson. Lovejoy was particularly intrigued by the presence, in both traditions, of a processualist ontology that located in «temporal becoming [...] a fundamental character of reality»; and by the far-reaching consequences this postulate may have for an overall reconsideration of the role and limits of traditional logical categories and discursive thinking in philosophy.

Guided by his own methodological worries, Lovejoy saw one element of such reconsideration in an invitation to think of ideas themselves as processes, or temporal entities, the purport of which is unassessable without allowing for their relativity to specific historical periods and their development over time. And yet ironically, it seems that precisely this insistence on the "inner evolution" of ideas, in their transit from an author to another, has put a check on Lovejoy's ability to delve deeper into the parallels he detected between French and American philosophy, for he too often lapsed into presenting them as the mere consequence of some ideas' having been "in the air" at a certain time, "ripe to be plucked" by different individuals, whose sources, motivations, and biographical paths, however, he stopped short of appraising.

My aim is to take up Lovejoy's insights while getting around this shortcoming. One way to go about it is to focus on the strikingly similar sources from which the founders of the two traditions under discussion drew the basic elements of their processualist metaphysics – and in particular on one author who stands out for importance against all: Aristotle.

2.

That Charles S. Peirce was (as he said) «an Aristotelian of the scholastic wing» – having studied Aristotle «more than any other man» – is best demonstrated by focusing on a crucial term of his philosophy: *habit*. A very early occurrence of this term in his writings immediately reveals one of its major sources: Duns Scotus' distinction between *habitual* and *actual knowledge*, in turn inspired – as Peirce acknowledges – by Aristotle's notion of *hexis* (*habitus* in Latin). While this terminology would subsequently prove crucial for Peirce's reflections on topics as disparate as the unconscious, the pragmatic maxim or the problem of universals, one should first and foremost recognize in it the link with that Aristotelian line of thought

that had seen in the concept of habit (in the sense of both *hexis* and *ethos*) a basal and omnipervasive metaphysical notion rather than a mere surface-phenomenon of psychology.

Also part of this line of thought is a second great Nineteenth-century Aristotelian, as well as a founding figure of French spiritualism and an influential teacher of Bergson's: Félix Ravaisson. The author of a monumental exegesis of Aristotle's *Metaphysics*, Ravaisson is best known today for his short treatise *De l'habitude*, also heavily influenced by Schelling and Leibniz, which, in its treatment of the problems of teleology, evolution, the continuity of mind and matter, and the mediating function of habit conceived as a metaphysical principle bears arresting similarities to Peirce's philosophy of nature (albeit the two men were not, to my knowledge, directly related).

It is my intention, however, to go beyond these clear agreements in the realm of metaphysics, and track down the consequences of an Aristotelian reflection on habit in the two authors' views on perception and the mind as well. If convincing, this move has several benefits. To begin with, it sheds some light on some of the most puzzling issues in Peirce's account of perception. At the same time, though, it helps better detect and situate an aspect which, behind the affinities, marks a clear disagreement between Peirce and Ravaisson, thus inviting to construe their philosophies as two alternative responses to coincident urgencies. As I will argue, the kernel of this disagreement may be brought back to Ravaisson's eagerness to rescue the tradition of Rationalism and the Romantic revaluation of reason against the limitations of Kantian intellect.

Finally, an Aristotelian interpretation of Peirce's and Ravaisson's accounts of perception will also help me dwell upon a further, much less obvious yet crucial point of contact between the two authors. This is their shared emphasis on the fundamental philosophical significance of *drawing* and the visual origin of knowledge. Bergson among others already recalled that Ravaisson was not only a philosopher, but a painter, an art historian, and a vocal advocate of the importance of drawing in liberal education. Peirce, for his part, was famously convinced of the character at bottom iconic of all reasoning, and developed a visual system of logic (the Existential Graphs) which is but the iceberg's tip of his massive and continual recourse to visual forms in virtually every page of his immense *Nachlass*. «I do not think» – he declared – «I ever reflect in words. I employ visual diagrams, [...] because this way of thinking is my natural language of self-communion.»

At a first glance, these facts may seem not only incommensurable (the stress being on mathematics in Peirce, on fine arts in Ravaisson), but rather immaterial to the two authors' philosophies. They are not, however. As every Renaissance scholar knows, over the centuries Aristotelian philosophy has proved one of the most compelling models for reflections on the cognitive purport of drawing, and on the fuzzy boundary between knowing and seeing. The main reason thereof should be looked for, I believe, precisely in the dynamics underpinning Aristotle's notion of habit. In the *De Anima*, sensation and intellect are *hexeis* or «first actualities» of the body.

Their ability to «grasp» external realities relies on what I shall call a peculiar circularity between potency and actuality. Similarly to what happens to *technai* or ethical virtue, our perceptual ability only works by its being gradually shaped by the establishment and repeated actualization of habits (in the sense of *ethe*) in such a way that every new act of perception «acts back» into the potency, improving and reshaping it. Now, as Ravaisson held, drawing is a *techne* par excellence: only by practicing it do we become able draftsmen. Its striving for the representation of reality may be seen as a way of enhancing our perceptual habits, provided these are conceived, in line with the *De Anima*, as radicated in our body.

At the same time, the process of habituation needs to be led by what Aristotle calls *epagoghé*, and which, though traditionally translated as “induction”, should rather be conceived as an ability to grasp the universal as embedded in the particular. In the case of moral habituation, a similar function is exercised by the conjectural capacity to aim at the right mean and to see *with the eye of the soul* (as Aristotle says) the particular in the light of the end. One leading hypothesis of whay I shall say is that the disagreement between Peirce and Ravaisson can be rephrased as a different interpretation of Aristotle’s notions of *epagoghé* and the eye of the soul.

3.

Let me discuss further this intertwining between drawing, metaphysics and theory of perception by means of a drawing. [SLIDE] Two contiguous pages of Peirce’s 1903 *Lectures on Pragmatism* contain eight variations of a same image: a line that repeatedly twists within a rectangular boundary, proceeding with a spiral-like tread from the periphery towards the centre of the figure and then moving in the opposite direction, thereby closing all its previous curves to form a group of irregular ellipses tangent to one another. At each repetition of the figure, Peirce experiments with a different drawing strategy, until he gets to a more complicated version of the same picture, where the spiral-like pace, rendered at first almost imperceptible by the irregularity of the ovals, is in fact emphasized by a black line that unravels through them.

The manuscript pages that contain these images are among the most important of Peirce’s papers. They deal with a nodal point of his mature theory of perception, and more broadly, of that «proof of pragmatism» that is the ultimate goal of the lectures. Perception is always interpretive and conceptual. Were it not for the usual lack of control over it, its form would not differ from hypothetical inferences.

The image in question is meant to strenghten precisely this point. As Peirce writes, «it consists of a *serpentine line*; but when it is completely drawn, it appears to be a stone-wall.» These are two rival «general classes» under which the drawing can be alternatively subsumed; and the subsumption already unwittingly occurs in the perceptual judgement. Yet with time we are able to acquire some control over this process, and may develop a tendency to interpret the image according to the alternative possibility. It follows that a neat divide between abduction and perception cannot be traced.

The care Peirce exhibits in experimenting several times with the same drawing (which he was then to reproduce with chalk on a blackboard) is, at least to a point, immediately understandable: more than a mere illustration of his theory, the image had visually to reinforce it by eliciting a distinct reaction in the audience. In this, it may be compared to renowned visual illusions such as the duck-rabbit, made famous by Wittgenstein but first employed in those same years by a pupil of Peirce's, psychologist Joseph Jastrow. A number of other elements, however, suggest that while creating it, Peirce was also lingering over this image as a sort of "visual musing" on his own philosophy as a whole.

Let's see some of them. The true inventor of this picture was not him, but his father Benjamin, the theologian and mathematician (as well as a crucial influence on his son's philosophy) who had used it to argue that, although continuity and *temporality* are «the basis and essence» of reality, men can apprehend them only inferentially, because of the «prevalence of the law of discontinuity» in their perceptual faculties. An argument extremely similar to this, although limited to aesthetics, had been proposed by the man who almost certainly inspired Peirce's use of the very expression «serpentine line»: the artist William Hogarth. In his enormously successful *Analysis of Beauty* (1753), he had maintained that, while the *eye* necessarily receives stimuli in a discrete succession, the serpentine line forces the *eye of the mind* to recreate continuity over and above it, thus bringing about aesthetic pleasure.

At the same time, also the metaphysical sense of Benjamin's words has clear implications on his son's use of the drawing. Especially in his mature years, Charles Peirce saw pragmatism as virtually of a piece with the existence of three metaphysical categories: positive and qualitative immediacy, or Firstness; sheer materiality, or Secondness; finally Thirdness, the category of signs and rational phenomena, *habit forming*, mediation and continuity. Though all three categories should be accorded equal weight (a stance Peirce dubbed "Aristotelian"), Thirdness holds a primacy over Firstness and Secondness, insofar as it encompasses the totality of our cognitions, hence constituting the only strictly speaking knowable dimension of nature; and governing actual states of affairs. The continuous line that, akin to a picture's watermark, snakes its way through those "bricks" of reality that some philosophers are mistakenly content with, turns out to be a pregnant visualization of Peirce's metaphysics.

4.

Now, the equation of the category of Thirdness with the sphere of signs is the counterpart, on the metaphysical level, of Peirce's rebuttal of intuitionism: The impossibility of "knowledge by acquaintance" is involved in the very definition of knowledge as semiotic, hence inferential. This, however, does not necessarily rule out some sort of *pre-cognitive immediacy*, which, in fact, Peirce's mature theory of perception does take into account. Percepts, he thought, are not signs of external realities; they are the external realities themselves, directly impinging upon the

perceiver, as in the *muscular effort* that accompanies all our relations with the world. Yet this does not amount to a non-inferential foundation of perception, for perception proper, as a *cognitive* phenomenon, only begins with the perceptual judgment, which interprets the percept through a process (as we have seen) akin to abduction. Though they are the “first step” in the chain of guessings at the regularities of nature, perceptual judgments are not its *foundation*, for as cognitive phenomena they necessarily depend on previous premises.

The very hinge of this crucial, but quite mysterious, “leap” from the Secondness of percepts into the infinite chain of our inferential cognitions is thus abduction. This notion has been justly regarded as one of Peirce’s most consequential innovations. This does not prevent it, however, to have historical precedents in the age-old debates on the types of knowledge alternative to deductive reasoning, which, also driven by different interpretations of the Aristotelian *epagoghé*, constantly intertwined – or conflated – induction, analogy, hypothesis, intuition. Peirce himself summed up his own position within this horizon when he wrote that while previous logicians had already recognized the existence of abduction, he was the first to study it as a downright *logical inference*.

Yet for all its appeal, this thesis (which is tantamount to Peirce’s critique of Cartesianism) has to face a well-known difficulty: how can abductions create new knowledge, if the content of their conclusions must already somehow be there in the premises? One neglected facet of Peirce’s answer to this paradox is his envisioning perception as a “circular” dynamics of habituation that relies on the structure of Aristotelian *hexis*. While the perceptual judgment is the result of an abduction triggered by the percept, the conclusion of such abduction is normally not “created” at the moment, but is already present in the mind *habitualiter*; that is, as a «general idea» *embodied in a habit of action* which, in turn, “deductively” brings about a set of reactions. At the same time, every new abduction serves as the basis of an inductive inference that, «as the sample [of sensations] is enlarged», gradually strenghtens or slightly corrects the preexisting habit. The whole mechanism thus guarantees that every perceptual experience is at the same time determined by the former ones, and able to “feed back” into the perceptual habit itself, «confirming» and «refining» it.

Sometimes, abduction can also have the more radical task of creating a thoroughly new general idea, in case no preexisting one is in condition to explain the facts. Peirce seeks to clarify this point – which is the most problematic – by pointing to two features of abductive reasoning that I regard as belonging together. The first is its formal similarity to the acquisition of motor skills. Abduction is a «flash of insight» that compels us to «[put] together what we had never before dreamed of putting together», the same way we integrate different motor abilities into a new composite movement. The second feature is even more important: it is its iconic character. Before a set of uninterpreted facts, abduction suggests an explanation that is an icon thereof. Although the point is insufficiently clarified, this feature clearly dovetails with one of the essential characters of Peirce’s icons: their ability to always disclose more informations «than those which suffice to determine [their] construction».

An interesting thing about these two features – which we may call the *embodied* and the *iconical* nature of abduction – is that, as in a sort of fractal, they recapitulate Peirce’s more general conception of creative reasoning, as encompassing the whole “Aristotelian” spiral of abductions, deductions and inductions that constitutes *every* cognitive task, and is in fact the essence of mathematics, too. «[R]easoning is not done by the unaided brain, but needs the cooperation of the eyes and the hand»; though the «unaided mind» is similar to a «machine» in its inability to go beyond the limits of its engineering, «the mind working with a pencil and plenty of paper has no such limitation.» It can build diagrams, experimentally modify them, and observe the results, relying on the “creative” power of icons.

5.

In both his art-theoretical and philosophical works, Ravaisson repeatedly used the same expression as Peirce’s, *serpentine line*, as an alternative name for that «vital principle» of things which he had been after since his writings on Aristotle.

Against Platonists and subjective idealists on the one hand, materialists on the other, Ravaisson looked for a solution to the classical post-Kantian problem of the rift between the conditioned and the unconditioned which did not sacrifice the ontological dignity of either side. Aristotelian ilomorphism gave him the model for envisioning the “spiritual” dimension of external realities as the soul that inhabits and governs them, and that, without being reducible to its “body”, is in continuity with it. Similarly to Peirce, he located the fulcrum of this incarnation or *serpeggiamento* (as he also said) of spirit in matter in the notion of habit. In the realm of psychology, habituation phenomena show the untenability of any neat distinction between mind and matter, freedom and necessity; but over and above it, habit works as the fundamental principle of mediation in that universal “Chain of Being”, in which man is separated from inorganic nature not by a qualitative distinction, but by a different degree of spiritual activity and by the active force of evolution.

But let us tackle the point that marks the divergence with Peirce. Seeing himself as the heir of the French philosophical tradition, Ravaisson wanted to rescue the Cartesian quest for an immediate and infallible foundation of knowledge. Only, this Cartesian subject is “immersed” in a Schellingian cosmos whose unconscious spiritual principle is the same that becomes conscious in us – and both ultimately point to God, conceived as the Aristotelian “pure actuality” that moves the Chain of Being. Besides, the way that leads to absolute certainty is different from Descartes’, and follows instead the voluntarism of psychologist Maine de Biran. *The fact that we move in the world* is at the same time the basis of our immediate, *muscular* relation with it, and a guarantee of the existence of infallible knowledge of ourselves, for we also dispose of immediate access to the cause of our movement. Moreover, the soul that resides in us is in a “pre-established harmony” with that embodied in the world. All this explains why our introspective faculty is in fact but another name for the *intellectual intuition* (in Schelling’s sense) of the «soul of things».

If Peirce was convinced that we can only come to grips with the Thirdness that

innervates the world by means of a fallible process of conjectural interpretation, Ravaisson moved from man's embodied nature to revitalize the idea of immediate knowledge. He saw the paramount shortcoming of Platonists and materialists alike precisely in their refusal to allow for a synthetic, intuitive faculty beside the inferential one; for an *esprit de finesse* without which the *esprit de geometrie* is bound to run at idle.

This disagreement in turn mirrors into the different ways the two thinkers conceived the ontology of Spirit or Thirdness, and the nature of its embodiment in matter. The status of Peirce's Thirdness is well epitomized by the distinction between *types* and *tokens*: although, properly speaking, it exists only in its individual instances, Thirdness is not exhausted in them, but rather constitutes the rule that governs the chain of their future reproductions. At the same time, trying to do away with those instances would be like trying to separate an onion from its peel: what remains is «airy nothingness». It is consistent to this position that no direct apprehension of the onion's "core", which grasps it without going through its peel, is possible. On the contrary, Ravaisson's faith in a direct grasping of the "soul of things" goes hand in hand with a more substantial conception of it. The continuity between matter and spirit – or between body and soul – does not prevent the latter from being independent from, and "worthier" than the former.

Unlike the late Peirce, Ravaisson held percepts to be *signs* of the external realities, not the realities themselves. But the immediate relationship with the given, or «*muscular duality*» between subject and object, which Peirce strived to account for on the level of sensations, far from being thereby belittled, plays an even more crucial role. Our ability to grasp directly the «movement» and «soul» of things, which in turn depends on our own kinetic faculty, has the task of leading and controlling the process of hypothetical deciphering of sensations. Ravaisson conceived this, even more explicitly than Peirce, on the model of that circularity between act and potency that I maintain to be inherent to Aristotelian habituation. Following again Maine de Biran, he envisioned perception to be governed by an inverse proportionality between spontaneity and passivity, according to which, at each new actualization of the percept, simple receptivity dulls, and the percept is more and more actively "recreated" in our soul.

Ravaisson's faith in the philosophical and pedagogical significance of drawing is a direct consequence of these ideas. For the reasons I have summarized above, it is in the practice of drawing that the fundamental features of perception – its *habitual* and its *embodied* character – find their purest expression. Besides, it is only through movement that we can capture and fix on paper the "essence" and character of the object. Drawing helps us improve our perceptual habits, and to sharpen that "eye of the soul" by which we understand external realities. This is why, according to Ravaisson, the Renaissance masters – Leonardo above all – had maintained that learning to draw ultimately means learning to think. Drawing is a philosophical activity; and whereas the abstract philosophy of subjective idealists contents itself with sketching the «contour» (as Ravaisson said) of things, the true philosophy must

follow Aristotle's and Leonardo's teachings and aim at immediately «grasping» that «principle» of things that contains their «reason»; that «generative axis of the individual being», «sign and figure of its life», which, in the realm of visuality, is the serpentine line.

Given these reflections, it is no surprise to discover that Ravaisson was himself a prolific draftsman. Yet this side of his intellectual biography has elicited almost no attention from scholars. [SLIDE] An envelope preserved in the *Bibliothèque Nationale* in Paris contains more than three hundred drawings that are as yet almost totally unknown, but which call to be analyzed as a continuation, or a complement, of his philosophical work in a strict sense. They are very quick sketches in pen or pencil, done on any kind of support – a clue of his habit to draw continuously while working on other matters, using any empty space he happened to stumble upon. In line with his reflections on the relation between soul and body as the paradigm for metaphysics, almost the totality of the drawings (some of which are studies of Renaissance or Greek masterworks) depict human figures – typically by means of a studied alternation between the careful rendering of the details and a very rapid use of the line to render the overall posture and movement of the figure.

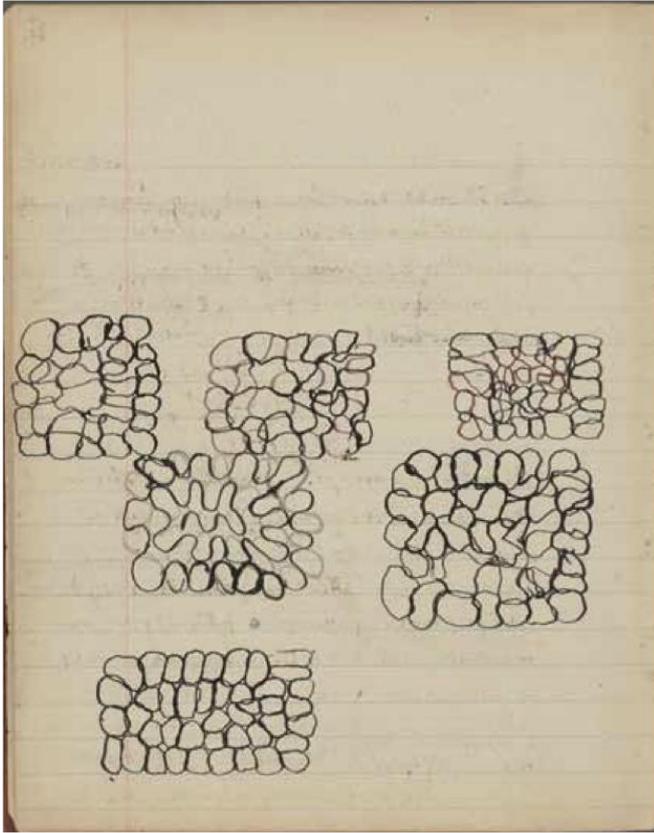
6.

Unlike the Platonic one, the Aristotelian tradition has always been undecided as to which one of our two senses holds a primacy over the other: sight – as we read in the *Metaphysics* – or touch – as suggested in the *De Anima*? The two Aristotelians with which I have dealt, Peirce and Ravaisson, are comparable in their attempt to reconcile the ambiguity by developing a theory of knowledge that gravitates around a double core: visuality on the one hand, the embodied and habitual nature of perception on the other. Yet guided by similar preoccupations, and moving from largely overlapping sources, the models they built are, from one point of view, alternative.

Peirce's pragmatism and his theory of categories go hand in hand with his fallibilism, and a neatly anti-Cartesian, externalist view of the mind. In Ravaisson the reflection on our embodied nature is functional to a retrieval of the Cartesian *cogito* and a more spiritualist standpoint that dovetails with a pronounced internalism with regards to the nature of thought. Although necessarily realized into material garments, thought precedes and determines them rather than the other way around. As he wrote: «intelligence [...] as it produces itself, shapes itself into [...] a body».

Aristotle was definitely right – he went on to say – that we cannot think without images; but Iamblichus, the Neoplatonist philosopher, was equally right in adding that every image is the expression of something higher. It is worth noting how this attitude (which betrays again his vicinity to Schelling) moved Ravaisson, much more than Peirce, towards a deep appreciation of the philosophical significance of visual art.

Slide 1



5.

supposed to show; but I cannot imagine what else it could have been but only ^{colary} ~~colary~~ proposition, No 2. If so in maintaining that proposition I am ^{substantially} ~~substantially~~ heading the ^{his} ~~his~~ foot-prints. (Here is the figure) ^{though he would doubtless have put the proposition} ~~though he would doubtless have put the proposition~~ ^{of a} ~~of a~~ serpentine line ^(though I cannot draw it as skilfully as he did) ~~(though I cannot draw it as skilfully as he did)~~

completely drawn

But when it is done, it appears to be a stone wall. The point is that there are two ways of concerning the matter. Both ^{though you remark} ~~though you remark~~ are general ways of classing the line. But the very decided preference of our perception for one ^{mode of classing the percept} ~~mode of classing the percept~~ ^{shows that} ~~shows that~~ this general classification is contained in the perceptual judgment. So it is with that well known ^{shaded outline figure of a pair of steps seen} ~~shaded outline figure of a pair of steps seen~~ ^{in perspective} ~~in perspective~~. We seem at first to be looking

Slide 2

