

**Signifying Nature:  
Semeiosis as the Foundation of Post-Critical Cosmology in Charles S. Peirce**

**A thesis submitted to Goldsmiths University of London in fulfilment of the  
requirements for the degree of Doctor of Philosophy**

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## **Declaration of Authorship**

I, Chrysoula Sdrolia, declare that the thesis entitled *Signifying Nature: Semeiosis as the Foundation of Post-Critical Cosmology in Charles S. Peirce* and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research.

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Signed:

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To my dear parents

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## **Abstract**

This thesis presents a reading of Charles Sanders Peirce's logic of semeiosis as the foundation of a pragmatist cosmological speculation. For the benefit of a systematic and chronologically substantiated approach, the elements of this logic are first recovered through a special focus on Peirce's early and largely unexamined metaphysical manuscripts. Such a focus primarily serves the purpose of situating the genesis of semeiotics within a distinctly post-critical problematic. Beginning with an investigation of the core tenets of Kantian and German Idealist thought, the first part proposes that semeiotic logic emerges as a consistent effort to return the sign to Nature by relieving the schism between infinity and finitude. It is shown that the various aspects of Peirce's original inspiration – including his logical method, the novel conception of continuity, and the theory of feeling – systematically converge on the point of confronting reason with its unconditioned or un-conscious ground, thus aiming to render possible an experiential metaphysics of the Idea as part of a self-expressive Nature. Picking up the results of this initial exploration, the second part then proceeds to trace the development of Peirce's early foundational concerns into his mature doctrine of the Categories, which is reconstructed as an evolutionary cosmology of the sign. Such a metaphysics of cosmic semeiosis, which is found to simultaneously require and to be powered by a pragmatic-experimental mode of thought, is revealed as the consistent thread that runs through Peirce's opus from his early musings to his mature philosophy. This thesis therefore advances the argument, propounded by a number of scholars, of the fundamental integrity of Peirce's thought, against its standard and rather persistent division into distinct metaphysical and logical components. Finally, it is argued that the reconstruction, presented in this work, of Peirce's metaphysics is to be understood as a powerful vantage point from which to think of the possibilities of a contemporary cosmological practice of semeiosis.

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## Index of References and Abbreviations

Frequently quoted works are cited directly in the text. All references are to original texts. The editions and abbreviations used are the following:

### Works by Charles S. Peirce

- CP** *Collected Papers of Charles Sanders Peirce, Vols. I-VIII*. Edited by Charles Hartshorne, Paul Weiss, A.W. Burks. Cambridge, MA: Harvard University Press, 1931, 1958. References are by volume and paragraph number. For example, (CP 1.2) refers to volume 1, paragraph 2.
- CD** *The Century Dictionary*. Edited by William D. Whitney. New York: The Century Company, 1896.
- EP** *The Essential Peirce. Vols. I & II*. Edited by Nathan Houser, Christian Kloesel, and Jonathan R. Eller. Bloomington and Indianapolis: Indiana University Press, 1992-1998.
- MS** The Charles S. Peirce Papers microfilm edition (Harvard University Library, Photographic Service, 1966). References employ the numbering system for manuscripts (MS#) developed by R. S. Robin in his *Annotated Catalogue of the Papers of Charles S. Peirce* (Amherst: University of Massachusetts Press, 1967), as supplemented by Robin in 'The Peirce Papers: A Supplementary Catalogue', *Transactions of the Charles S. Peirce Society* 7(1971): 37-57. For example, (MS 434.30) indicates Robin's catalogue manuscript number 434, page 30.
- NEM** *New Elements of Mathematics. Vols. I-IV*. Edited by Carolyn Eisele. The Hague: Mouton Publishers, 1976.
- W** *Writings of Charles S. Peirce. A Chronological Edition. Vols 1-6 & 8*. Edited by Max Fisch et al. Bloomington: Indiana University Press, 1982. References are

abbreviated by volume, manuscript, date and page numbers. For example, (W1 MS18 1866, 20) refers to volume 1, manuscript 18, year 1866, page 20.

### **Works by Immanuel Kant**

**CPR** *Critique of Pure Reason*. Translated by Werner S. Pluhar. Indianapolis/Cambridge: Hackett Publishing Company, Inc., [1781; 1787] 1997.

**CPrR** *Critique of Practical Reason*. Translated by Werner S. Pluhar. Indianapolis/Cambridge: Hackett Publishing Company, Inc., [1788] 1997.

**CJ** *Critique of Judgment*. Translated by Werner S. Pluhar. Indianapolis/Cambridge: Hackett Publishing Company, Inc., [1790] 1997.

**LL** *Lectures on Logic*. Translated by J. Michael Young. Cambridge: Cambridge University Press, 1992.

### **Works by Plato**

We will be following the traditional way of referencing individual dialogues by their respective titles and lines. For example, (Tim. 36a) indicates *Timaeus*, paragraph 36, line a. We are consulting *Plato. The Complete Works*. Edited by John M. Cooper, Indianapolis/Cambridge: Hackett Publishing Company, Inc., 1997 and offer our own translation where necessary.

*Of the Usefulness of Metaphysics as a Study.* Is not meditation metaphysics? Is not the unfolding of the mind the same process as meditation? Is not Wisdom the unfolding of the mind?

To understand a proposition it is necessary to comprehend the terms of it. The conceptions of a proposition are contained in its terms. Hence, the primal philosophy is not to be learnt from propositions nor from books which are series of propositions, but from meditation. That meditation which gives us new conceptions is a *cultivation* resulting in a growth of thoughts, and the result of the growth of the mind as displayed in the thoughts is called Wisdom.

Why is metaphysics so hard to read? Because it cannot be put into books. You may put suggestions towards it into books but each mind must evolve it for himself – and every man must be his own metaphysician.

C.S. Peirce (*Treatise on Metaphysics*), W1 MS70 1861-1862, 60; original emphasis)

## Introduction

What is a sign? This question, which compresses in only a few words Charles S. Peirce's lifelong philosophical commitment, gives us simultaneously the starting point and the milieu of this thesis. Signs are everywhere and hardly a moment of our existence passes in which we do not tap into immense and ever-shifting patterns of signification. The life of the subject is the constant re-arrangement of an indefinite multiplicity of signs – gestures, images, concepts – into more or less enduring wholes that are meaningful for that subject. Peirce never tired exposing in this process the very source of philosophical problems. To signify, as he put it rather simply, is to occupy a place in a triadic relation; it is to be the interpreter to whom something is brought to stand for something else. Yet in the deceptive simplicity of this relation he found condensed a series of philosophical problems: what does the relational process of transformation of given elements into others presuppose? What does it entail for the definition of the sign? And, perhaps most important of all, who does the sign belong to? Who signifies?

The logical rigour and taxonomic thoroughness with which Peirce pursued the clarification of such concerns earned him a place among the founding figureheads of modern semiology and an eminent place in formal logic. As far as these two latter strands of thought were concerned, Peirce's contribution to the study of signs was his invaluable refinement of the parameters of the subject's signifying activity. Correlatively, semeiotics – as Peirce came to call his doctrine of signs – became synonymous with the logical deduction of the various classes of signs as a supreme

example of philosophical labour.<sup>1</sup> Yet what the burial of Peircean thought under taxonomies missed, or rather, what it carefully dismissed was the obvious and disarmingly naïve question of importance: why did Peirce find it necessary to rethink the nature of the sign in the first place? What in the already established philosophies of signification could possibly warrant the expenditure of so much energy? The reasons for the said dismissal are not hard to fathom. As it is, our question inevitably brings out the heart of the matter in Peirce's re-definition of semeiosis, upon which he always insisted but which in the aftermath of the semio-logical treatment of his work could only be received unfavourably: namely, the fact that semeiosis is first and foremost a problem of metaphysics. Unless the basic metaphysical presuppositions underlying it are challenged, there is no hope in understanding what the creation of signs involves. As we will see, one such presupposition Peirce will constantly challenge will be the very role of the subject in the signifying process. For our philosopher, the classification of signs alone is not enough to explain semeiosis. Rather, it is what the semeiotician arrives at after having dismantled the underlying assumption that the sign belongs to the human. To paraphrase one of his most audacious statements, one who restricts signification to the human does not know what signification is (*W1 MS113 1865, 326*). The task of the semeiotician is therefore no different than that of the metaphysician.

Reopening Peirce's reopening of the question of sign is the double movement that comprises the field of our inquiry. Our aim is to investigate what led Peirce to lay down the limits, powers, and functions of the sign in terms of a metaphysical framework that persistently refused to pin down semeiosis to the human. In doing so, we aspire to let the question of importance resurface anew, this time as the spine of our thesis: why is it important to affirm, with Peirce, the non-human nature of

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<sup>1</sup> We will be using Peirce's original spelling 'semeiotic' and 'semeiosis' throughout.

the sign? What do we stand to gain? To answer these concerns we will be following a route that is first of all reconstructive. Our primary aim is to produce a systematic study of Charles S. Peirce's philosophy of semeiosis through a special focus on his early metaphysical and logical manuscripts. As we have already hinted above, this focus is informed by the desire to bring to light those aspects of his thought, evident in Peirce from the beginning, that we consider to have been obscured by the separation of semeiosis from its metaphysical orientation resulting in the disproportionate emphasis on the semiological orientation of his mature pragmatism.<sup>2</sup> To this extent, this project is partially an attempt to enrich the reception of Peirce in contemporary scholarship by retracing the conceptual mutations of his *oeuvre*. In bringing together the early and mature stages of his philosophy, we aim to connect Peirce to a lineage of metaphysical problems in contradistinction to the orthodox absorption of his work into logicism and semiology.<sup>3</sup> Yet beyond such methodological considerations, our choice to dwell on these initial musings primarily reflects our conviction that Peirce's first metaphysical intuition is a supreme manifestation of the spirit of that mode of thought that he

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<sup>2</sup> In 1905, Peirce renamed his philosophical method of pragmatism (first articulated in 1878 in 'How to Make Our Ideas Clear') into 'pragmaticism' – a term 'ugly enough', as he put it, to discourage any 'kidnappers' too keen on divesting pragmatism from its speculative basis and recruiting it on the side of utilitarianism and positivism (*CP* 5.414). While respecting Peirce's motives, in this thesis we will be using the old term 'pragmatism', thus reclaiming it on the side of metaphysics as was our philosopher's original inspiration.

<sup>3</sup> Regarding our claim about the overemphasis on the semiological and logical aspects Peirce's mature pragmatism, the reader may be convinced by a quick overview of Peirce scholarship (see Houser (1993), Putnam, (1990), Eco (1976), Rorty (1961), Nagel (1956), Buchler (1939)). Although we do not wish to downplay Peirce's contribution to these fields, there is a general tendency to overlook how the writings predating the articulation of the 'Logic of Relatives' (1870) contribute to Peirce's mature formulations, which is supported by the conviction that Peirce's early thought is unsystematic and incoherent. This incoherence is traced to his supposed wavering between extreme idealist and realist positions as well as between a metaphysical and a logical approach to the sign (see, for example, Michael (1988), Fisch (1986), Goudge (1950)). Siding with a series of thinkers that identify a realist and thoroughly metaphysical streak in Peirce throughout (see Perez-Teran Mayorga (2007), Haack (2002), Hausman (2002), Hookway (2000)), this thesis will put forth the argument that Peircean pragmatism is never simply 'logical' but rather 'cosmo-logical'.

famously termed *abduction*, which defies the strictures of rational reflection and animates his philosophy throughout. As we will see, if pragmatism is to be characterised as ‘logical’ at all, then this must be done at the cost of extracting ‘logic’ from its canonical acceptance as formal. Reading Peirce first of all demands that one be ready to abandon his image as logical labourer and accept the invitation to keep open the path of inquiry, as was his tireless motto. In other words, with Peirce one must be prepared to relinquish the comfort of necessary demonstrations and the fear of consequences and venture into the risky territory of hypothetical thought. In taking seriously Peirce’s first philosophical intimations, our goal is therefore not only to reclaim the metaphysical orientation of pragmatism but also to argue that the future of the pragmatic mode of thought lies in its ability to articulate a speculative cosmology, which we would like to call a cosmic semeiotics.

There is still much in Peirce’s work that disallows a concise historicisation of his thought. This, however, is not simply due to the fact that he never wrote a book or due to the admittedly erratic posthumous publication of his work. Throughout his philosophical journey Peirce remains too much of an experimenter to linger on his intellectual affiliations or to care for a detailed commentary on the history of philosophy. His writings are as much marked by delightful outbursts of creativity as they are by his noticeable neglect of the decorum of academic exposition. To be sure, a chronological ordering is possible. Even that, however, is not always enough for one to harness Peirce’s experimental temperament and diverse interests into a single framework or tendency. Freely traversing the fields of philosophy, logic, mathematics, physics, and chemistry, Peirce remains a polymath of a remarkably wide range. And yet, in the same way that Kant establishes a history of reason or Nietzsche unfolds a genealogy of nihilism, Peirce, too, has his own vantage point from which to evaluate

the evolution of philosophy. As we will argue, for Peirce the thread that runs consistently through modern thought and defines it against older doctrines is its fundamental misunderstanding of the nature of the sign. We will find that what he tries to challenge is the misconstruction of the process of signification as the self-valorising activity of a rational mind bestowing meaning upon and hence silencing the voice of the cosmos. And we will see that, in his view, the recovery of this voice as meaningful in itself, which could have prevented the fragmentation of the world into vocal subjects and mute objects, had been delayed ever since the advent of critical philosophy by an ill-drawn opposition between the logic of the subject and the logic of nature.

In the continent, Idealist philosophy had already mobilised against this last dichotomy.<sup>4</sup> Although in different ways, several thinkers such as Fichte, Hegel, Schelling, von Hartmann, and others converged on the possibility of articulating a proper metaphysics by challenging the limits Kant had set for philosophy. In many ways, Peirce's venture may be brought into historical and speculative dialogue with these older continental strands of thought. Nonetheless, the relationship between Peirce and the great post-critical thinkers is not one of mere reception. Besides outbursts of admiring agreement or outright rejection, there is never a rigorous engagement with this of that aspect. Schiller, for example, will make a very brief appearance in an early essay on the sense of beauty in 1857.<sup>5</sup> As for Schelling and Hegel, the two giants of post-critical thought, it would be more accurate for us to describe them as background presences rather than as acknowledged interlocutors in Peirce's work. Of course, we do

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<sup>4</sup> We are using the terms post-critical idealism not in order to define but only to broadly indicate a general movement of thought that flourished in Germany in the late eighteenth and nineteenth centuries. This would include both romantic idealism, which tried to put forth a new aesthetic of reason and which might be loosely be said to include thinkers such as Novalis, Schlegel, Schelling, and the idealism that would be accorded to the late Kant, Fichte and Hegel.

<sup>5</sup> The essay is titled 'The Sense of Beauty Never Furthered the Performance of a Single Act of Duty' (*W1 MS12 1857*, 10-12)

not mean to suggest that parallels or creative connections are impossible to draw. To paraphrase Peirce's humorous self-diagnosis, one never fully knows what 'cultured bacilli' one contracts until unexpected ideas surface after a long and unconscious period of incubation.<sup>6</sup> There are indeed various nuances in Peirce that recall familiar post-critical themes: the famous triadic structure of reality, the reformed relationship between the faculties, the emphasis on logic and the unconscious, and the possibility of a philosophy of nature are all aspects that may be profitably understood in terms of their conjunction with their corresponding Idealist articulations. Though not exhaustive, such a list is admittedly a useful guide for placing Peirce's thought within a broader context and evaluating his philosophical adventure. Nonetheless, but for a brief exposition for the benefit of such contextualisation, we will not undertake to illuminate in detail Peirce's intervention in the milieu of German Idealism. Despite its numerous benefits, historicisation frequently harbours the risk of obscuring the very movement that powers a philosopher's thought. Besides, we are dealing with a philosopher who often proclaimed his distaste for the 'trammels of system' and looked up to the freedom of a 'scientific man' holding himself 'uncommitted to any previous utterance' (Perry 1935, 414).<sup>7</sup>

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<sup>6</sup> As he humorously remarks in 'The Law of Mind' in 1892:

I may mention, for the benefit of those who are curious in studying mental biographies, that I was born and reared in the neighbourhood of Concord – I mean in Cambridge – at the time when Emerson, Hedge, and their friends were disseminating the ideas that they had caught from Schelling, and Schelling from Plotinus, from Boehm, or from God knows what minds stricken with the monstrous mysticism of the East. But the atmosphere of Cambridge held many an antiseptic against Concord transcendentalism; and I am not conscious of having contracted any of that virus. Nevertheless, it is probable that some cultured bacilli, some benignant form of the disease was implanted in my soul, unawares, and that now, after long incubation, it comes to the surface, modified by mathematical conceptions and by training in physical investigations (*CP* 6.102).

<sup>7</sup> Written in 1895, the quote comes for a letter to William James and reads:

You ask whether I know of anybody but Delboeuf and myself 'who has treated the inorganic as a sort of product of the living'? This is good. An instance, no doubt, of that

One might want to take exception to the above as an instance of pompousness. After all, there remains one thinker to whom Peirce is very close and this is none other than the father of critical philosophy himself. Peirce is far from the continent but never too far. Still, his appeal to a scientific mode of thought is more than a whim and we need to resist interpreting it as indicating lack of respect. On the contrary, it is a call for experimentation, for re-staging philosophical problems and seeing for oneself how the consequences are going to turn out regardless of whether they conform to accepted discourses or not. In our view, what Peirce demands is a sincere engagement that honours the thinker in each one of us and draws attention to those inherited parameters, constraints, and obligations that bind our thought and which we need to put to the test without expectation. Experimentation means to follow the construction of problems without the safety of pre-established solutions and to do so with courage for at the end of the process the problem may be completely transformed and the thinker may be treading new territory. The scientific attitude, then, is nothing more than learning not to turn a blind eye to what presents itself as a problem demanding attention.

In Peirce's time, what demanded attention was certainly the evolution of the sciences. Developments in chemistry, physics, and especially the life sciences were

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wonderful originality for which I am so justly admired. Your papa, for one, believed in creation, and so did the authors of all the religions. But my views were probably influenced by Schelling, by all stages of Schelling, but especially by the *Philosophie der Natur*. I consider Schelling as enormous; and one thing I admire about him is his freedom from the trammels of system, and his holding himself uncommitted to any previous utterance. In that, he is like a scientific man. If you were to call my philosophy Schellingism transformed in the light of modern physics, I should not take it hard' (Perry 1935, 414).

Although valuable for comprehending Peirce's system as whole, his assertion about Schelling's influence on his thought should nonetheless be taken with a pinch of salt as references to the latter remain scant and as Peircean thought exhibits signs of 'objectivist idealism' long before his trip to Germany in 1870, after which the parallels between the two philosophers become more prominent.

increasingly beginning to testify to a world neither silent nor vacant but full of life. Additionally, progress in mathematics was beginning to expose the limitations of formal logical systems and open up the possibility of alternative geometries. The advent of topology came to contest the axioms of Euclidean geometry thus also challenging the traditional trust placed on that mode of demonstrative reasoning upon which philosophical reasoning relied. For Peirce, who had begun his academic life as a trained chemist and mathematician, such developments were already signalling the necessity of a turn away from what he used to term ‘seminary philosophy’ (*CP* 1.129). The difficulty with the latter was precisely the fact that the sciences had formed a peripheral and only partially integrated concern. In his view, by paying little attention to the actual modes of reasoning and experimentation involved in the scientific process, even such great thinkers as Kant and Hegel had frequently fallen for a specific ideal of science bound to the charms of deductive rationality to the detriment of a nature that could speak for itself (*CP* 1.129). A new form of ‘laboratory philosophy’ needed to be born that would allow a rich, a properly *significant*, experience of the world as vocal (*ibid.*). By couching the sign into such experience, Peirce was determined to assist the birth of an evolutionary cosmology and an experimental metaphysics of thought.

The turn to laboratory mentality need not be read as an attempt to establish a hierarchy between philosophy and science. If anything, Peirce held that science was pestered by its own misguided image of itself, often assuming the form of unacknowledged metaphysical assumptions too close to a positivist-scientific or crudely materialistic views. Often converging with epistemology around the same impoverishment of experience, such views had already resulted in creating a world

subject to hyper-rationalism.<sup>8</sup> Experimentation needed to be recovered as much in science as in philosophy and for this to happen, the two disciplines needed to throw light upon one another – not through an unproblematic exchange of method, but through a thorough reconsideration of logic as their traditional common ground. We will see in the forthcoming chapter that, in a sense, Kant had already advanced such reconsideration by supplanting formal with transcendental logic. As it is well known, the latter's aim was to produce a prolegomena to a future metaphysics by questioning the reliance of dogmatic philosophers on the self-evident necessity of formal deductive reasoning. Yet for Peirce even transcendental logic presupposed too much: it could not escape the deductive paradigm, it could not account for its own genesis, it could not disengage itself from the subject, and it could not recognise its own implicit metaphysics. He will therefore embrace the demand for a scientific metaphysics but as an innovative reader of Kant he will stretch the consequences of this demand into a total reconstruction of logic beyond and before the subject. It is only after the unwarranted power of logic over philosophical thought is challenged that the separation of the process of reason and the process of nature may cease – such is the challenge and the very mentality of the philosopher as experimenter who must now turn to signs themselves.

It is because Peirce takes the experimental route that he will ask the question of the sign without committing himself to the constraints set forth by critical

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<sup>8</sup> Some of the most notable thinkers Peirce never tires contesting on the grounds of nominalism, positivism, and what he called 'necessitarianism' are Herbert Spencer, Stuart Mill, Paul Carus, Pierre-Simon Laplace, and Auguste Comte. Peirce willingly acknowledges all those thinkers' differences. Nonetheless, beyond the constraints of their respective disciplines, he finds that they converge around the same misunderstanding of the nature of science and logic based on their tacit adherence to a metaphysics of determinism and their question-begging faith on 'rational' observation. See, for instance, 'Herbert Spencer's Philosophy' (W6, 395-400); [*Critique of Positivism*] (W2 MS146 1867-1868, 122-130); 'Reply to the Necessitarians', published in *The Monist* in 1893 (CP 6.588), and Fn P1 Para 1/2 (CP 2.511).

philosophy: human finitude, the double world hypothesis, and the primacy of the concept over experience are all put to the test. Of course, as we will see, Peirce will not negate the very fact that we construct signs that help us order or categorise our surroundings into a liveable environment. However, he will refuse to make this process unilateral, to restrict it to the signifying subject. Our primary argument is that 'sign' is the concept Peirce invents to designate what the signifying subject needs in the first place. The sign is the minimum requisite of judging and defining but it is indifferent and, indeed, resistant to being captured by judgment and definition. It therefore affords no opportunity to re-establish the triumphant subjection of nature to intelligibility. Each sign is too intricately embedded in and creative of vast networks of significance for it to be narrowed down to a purely linguistic or psychological or rationalising activity. The consequences of the sign, as the pragmatist thesis indefatigably repeats, run too deep and wide for us to claim ownership. The sign does not need validation through reference to something external to itself; it is its own source and its own criterion. Its reality and its necessity are to be found in the mere fact that it is a contingent expression of a world that commands attention. The possibility of signification therefore belongs to Nature, which includes what is *needed* by conscious recognition. Accordingly, the problem of the foundation of metaphysics, which critical philosophy had sought in reason only to negate its legitimacy, is reversed. Instead of metaphysical speculation being founded on reason, it is reason that must be founded on metaphysics. It is on account of this reversal that the question changes. Instead of 'who signifies?' Peirce starts with a different problematic, which we may condense into the following: 'what is involved in the process of signification and what are its consequences?' It is this line of inquiry that we argue to comprise the core of Peirce's philosophical experimentation with signs, their conditions of emergence, and their

mutual relations.

At this point, we may revisit and rephrase the very question with which we opened this introduction. For us, the Peircean question ‘what is a sign?’ is tantamount to the question ‘what does a sign do?’ The reader might recognise here the echo of a similar question raised by Gilles Deleuze in relation to Spinoza’s philosophy of the body expressed as an ethic of relations – ‘what can a body do?’ ([1968] 1992, 217-234). We are certainly indebted to this way of philosophising. In the same way that Deleuze shifts, through Spinoza, the philosopher’s attention from the ontological problem of essences to the ethical problem of relations and their consequences, we are also aspiring to envisage, through and with Peirce, what it is to think in such terms. As we will argue in the final part of this thesis, the question of cosmic signification is primarily an ethical one. But, then again, this is a connection Peirce himself already makes which exposes a Spinozist lineage in his philosophy and qualifies his semeiotic as an ethico-aesthetic practice. In Peirce, signification is never disengaged from the realities it simultaneously constructs and reveals. The metaphysical junction between invention and discovery at the heart of the sign is also at the heart of the pragmatic mode of thought which experiments with the consequences of its conceptions by delving into the logic of the very relations that bring these concepts into existence. This, as we will see, is the core of semeiotic logic as an experimental ‘logic of relations’.<sup>9</sup>

The particularity of semiotic logic *qua* experimental is that it begins neither as deduction nor as induction. This is how semeiotics gives philosophy an

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<sup>9</sup> Throughout the thesis it will be made clear that our approach to Peirce’s famous ‘logic of relatives’, to which our wording ‘logic of relations’ alludes, is metaphysical in orientation. In other words, we will be discussing it only to the extent that it refers to the broader relations of the Categories comprising the sign. We will not be delving into the more technical discussion that includes, for instance, the discussion on the Existential Graphs, an excellent account of which may be found in (Zalamea, 2003).

ethical function tied with a properly speculative mode of thought: it demands that the philosopher be 'abducted', as we noted in the beginning, by the worldly sign. One must be open to the abundance of signs that shock thought and make it confront the unconscious processes at its core. If the instinct is there that one is not quite sure how a sign has been produced, if the intuition is there that one has been addressed in spite of one's conscious intention, then this intuition and its resulting hypotheses are not to be dismissed. Again, this is an ethical and a pragmatic choice. If 'unfounded' hypothesis comes before deduction, then it is with the un-groundedness of hypothesis that the philosopher must start and the hypothesis Peirce starts with is precisely that the universe brings itself into existence by signifying itself (*CP* 5.119). The universe, in other words, is a vast process constantly evolving itself in divergent meaningful series of signs, whereupon we arrive at the famous corollary: 'the human is a sign' (*CP* 5.314). It is in this last statement, indicative of the complex metaphysical route Peirce will have to go through to articulate signification in non-human terms, that we find the answer to the question we posed: affirming the production of signs as cosmic and our nature as sign are important because it is there that our vocation, which Kant had entrusted in our transcending the physical, may finally find an expression beyond the separatist mindset of pragmatic anthropology. The cosmology of semeiosis can only allow for a pragmatism that is also cosmological, that does not separate between the processes of nature and the processes of reason. As we will argue from a Peircean perspective, our vocation, which is to evolve ourselves, hinges precisely on this realisation of the workings of Nature as the workings of un-reason within us. Again, we are not suggesting that the Kantian system is of no value for Peirce. From the latter's point of view, both Kant and himself put forth a hypothesis; it is simply that the cosmological hypothesis of un-reason has far more interesting consequences for what

the human can become.

This thesis starts with Peirce's early musings precisely in order to trace the contours of this cosmological hypothesis of un-reason from which his philosophy grows and which it suffuses. In doing so, we hope to uncover what matters for Peirce, what parameters he brings to his philosophical experiments and what problems these incur that shape his cosmology of the sign. In this sense, the present work aspires both to contribute to the resurgence of philosophical interest in the sign beyond its confinement within analytic philosophy and to the continuing process of the discovery of the many faces of pragmatism, as a whole. We are referring to the work of Gilles Deleuze, Félix Guattari, Isabelle Stengers, Didier Debaise, Bruno Latour, Brian Massumi, and others, who have reopened the question of the reception of pragmatism in European thought beyond its usual association with empirical sociology. Although following different trajectories, all these thinkers seem to us to converge on the necessity of recuperating the pragmatic mode of thought on the side of an empiricism that is superior in that it frees the experience of pragmata – or signs, as Peirce would put it – from the anthropological desire to transcend them. The world is not there to be *a priori* ordered into a whole; rather, it is what demands to be heard in the ways that the ever-changing mutual relations of things disrupt and construct realities. Experience, in this sense, is less of a function subservient to knowledge than a capacity for sensitivity which is what enables one to feel or experiment with the dynamic operation of things.<sup>10</sup> Alongside these thinkers, we are also after an experience of signs that is

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<sup>10</sup> We may briefly note that some of the different expressions of this current of thought include Deleuze and Guattari's pragmatic understanding of the concept as problematic in nature and bound to its effects in a transcendently empirical field (Deleuze & Guattari, [1991] 1994); what Isabelle Stengers calls a 'culture of interstices' inspired by the philosophy of A.N. Whitehead (Stengers [2002] 2011); Bruno Latour's notion of knowledge as a mode of existence (Latour 2007); Didier Debaise's 'pragmatism of potencies' (Debaise 2005) and Brian

open to the questions the signs themselves pose and this is a line of thought that we hope to make visible in the course of this thesis. Nonetheless, we should make clear that our contribution to this rich and rapidly expanding body of work is only tangential. Our primary purpose is to uncover what makes Peirce's philosophy 'untimely', to put it in Nietzschean terms; it is to understand pragmatism as an art of experimenting with philosophical questions and their consequences. In other words, we aim to bring to the surface the living core of Peircean philosophy not as the conclusion but as the program of an entire lifetime which Peirce knew only too well it would surpass his own. To the degree that it is possible, one has to treat a pragmatist pragmatically and we intend to do so by inhabiting the experimental or abductive movement of what we will call semeiotic cosmology.

The first part of this study will map out the confrontation of this abductive moment with the Kantian critique. Our argument is that Peirce's project is thoroughly grounded on a largely dispersed but ever-present critique of the anthropological sign, which we will attempt to reconstruct by mining the manuscripts prior to the 'New List of the Categories' in 1867 and the first notes on the 'Logic of Relatives' in early 1870.<sup>11</sup> In showing how Peirce renegotiates key themes of critical philosophy, we will be tracing the development of his pragmatic method out of his early 'logical method', which requires an experience of crisis and a concept of logic radically different not only from Kant's but also, albeit indirectly, from the superior dialectical rationalism of Hegel. Having uncovered this unknown Peirce, the results of this negotiation will be taken up in the second part, where the possibility for a logical

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Massumi's 'speculative pragmatism' (Massumi 2011). For a review of the reception of pragmatism in Europe, with a main focus on the intersection between William James and Émile Durkheim see (Bogusz, 2012).

<sup>11</sup> See (W2 P32 1867, 49-59); (W2 MS140 1867, 1-10); (W2 MS164 1869-1870, 348-358); (W2 P52 1870, 359-429).

yet non-deductive and non-rationalist metaphysics is found to be at the heart of the re-naturalisation of the sign and the articulation of a concept of creative semeiosis as the ethical practice of life. As a whole, the two parts form a systematic reconstruction of the foundation of post-critical cosmology in Peirce.

## **Part 1: Critique of the Anthropological Sign**

‘It is somehow more than a mere figure of speech to say that nature fecundates the mind of man with ideas which, when those ideas grow up, will resemble their father, Nature’ (*CP* 5.591). Written in 1903, when pragmatism has already entered its mature phase, Peirce’s words give us a reference point we will be coming back to: the possibility of returning the sign to the world is tied with the possibility of returning the idea to nature. For it is only when the processes of thought and of nature cease to be regarded as separate that we may reawaken to the signifying activity of the universe of which we are a manifestation. Our argument is that Peirce’s itinerary through philosophy is unmistakably bent through this problematic. As we intend to show, almost all aspects of his thought – from his early writings on logic to the mature formulation of the categories – converge upon the same concern, namely the necessity of reopening through a cosmic semeiotics the path toward a properly metaphysical speculation. In this sense, Peirce’s orientation is decidedly post-critical. Articulated after the blow, inflicted by Kant, on the naivety of dogmatic methods of thought, his project is an attempt, like so many others following the crisis of reason, to restore nature from the status of a scattered illusion and to recover speculation from the misadventures of a privileged yet self-limiting human intellect. Compared, however, to the elaborate undertakings of such philosophers as Fichte, Schelling, and Hegel, Peirce’s engagement with the crisis of reason never reaches the status of a detailed and systematic refutation. It is as if critical philosophy forms only a peripheral concern for a project that quickly proceeds to map out its own parameters and directions without too much attention to individual details. No matter how much Peirce stresses his

respect for Kant, it is hard to miss his rather nonchalant attitude for the constraints the great critical thinker had imposed upon philosophy. We might say that the interaction between the two philosophers is always characterised by a certain miscommunication: in a way, Peirce agrees to re-stage the Kantian problematic but the very question of right, the grand presupposition of a total and immanent critique, never really manages to become part of this re-staging. For an avid experimenter such as Peirce, the question ‘what can I know?’ is irrelevant for the philosophical experiment; if asked, at all, it can only be asked at the end. When experimenting, one can only begin with what one already has at one’s disposal, which is what the experimenter already knows and which must be trusted until the final outcome emerges.

What better place to begin one’s experiment than the obscure laboratory of unconscious ideas? Much of Peirce’s early work, which is the focus of the present thesis, revolves around his desire to produce ‘ [a] metaphysics – the ontology of the soul’ (W2 L183 1868, 192) that would account for the activity of unconscious or natural signification which had not found a place in the critical project. Of course, Kant had already touched upon the subject. In a moment of perspicacity in the *Anthropology*, he clearly puts forth the thesis for the paradoxical existence of ‘*obscure*’ representations or ideas, which are there though only ‘*indirectly*’ cognised (APV 7:135; original emphasis). In this way, he moves past the Cartesian and Lockean equation of having an idea and being conscious of it, thus opening up the path for a sophisticated notion of consciousness that is not to be confused with perception. Indeed, a variant version of the double distinction between obscure/clear and unconscious/conscious ideas, can be said to trickle down to the *Critiques* where, in our view, it finds a very interesting expression. One could put forth the reading that as pure forms of the understanding, the concepts to assume a status very similar to that of un-conscious

ideas. It is true that Kant never refers to pure concepts as unconscious, strictly speaking. Yet in the very fact that the concepts are explicitly termed as the ‘germs’ or foundation of consciousness (*CPR* A834/B862; A835/B863), we cannot help but detect the subtle implication that pure concepts nonetheless *become* conscious when consciousness grasps them for what they are – namely, when consciousness grasps them *as* founding principles regardless of the objects they found. In other words, pure concepts do have the same potential as unconscious ideas to *pass into* consciousness (*CPR* A65/B90).<sup>12</sup> We might even take the liberty to stretch the analogy to intellectual intuition itself. Indeed, insofar as divine intellectual intuition is the kind of intuition which does not simply receive but creates its very object (*CPR* B72), it might be said to share the same property as a non-perceived, unconscious idea; for both the intellectually intuitive and the unconscious mode of thought are not *separate* from their object, strictly speaking – at least not in the way a conscious concept is.<sup>13</sup> Such formulations, in which we may

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<sup>12</sup>Let us note that Kant does not equate obscure with unconscious and clear with conscious ideas. Obscure ideas are not necessarily unconscious. Obscurity has rather to do with the fact that a conscious idea is not clearly discriminated in consciousness from its object. In other words, it is the absence or presence of knowledge of a concept as pure that distinguishes an unconscious from a conscious idea. As Kant puts it:

Clarity is not – as logicians say – the consciousness of a presentation, since a certain degree of consciousness, although not sufficient for recollection, must be found even in many obscure presentations. For without any consciousness we would make no distinction in the combination of obscure presentations; yet we are in fact able to do this with the characteristics of many concepts (such as the concepts of rightness and fairness, or those of the musician when he strikes many notes simultaneously in improvising). A clear presentation is, rather, one in which the consciousness suffices for being *conscious of the distinction* between this presentation and others. If the consciousness suffices for distinguishing them but not for being conscious of the distinction, then the presentation would still have to be called obscure. Hence there are infinitely many degrees of consciousness, down to its vanishing (*CPR* B415; original emphasis).

In his Letter to Francis E. Abbot on Kant in 1865, Peirce shows that he is aware of this point of subtlety in Kant’s thought. As he writes to his correspondent: ‘You have noticed I presume that a *representation* is not necessarily conscious’ (*W1*, 160; original emphasis).

<sup>13</sup> We will have the chance to elaborate upon what we can now only speak of as an analogy in the chapters to follow, when we come to discuss how Peirce explores the proposed intersection between intellectual intuition and the unconscious to articulate a finite mode of intelligence which has as much of a say in the creation of the sign as God does.

very briefly detect a Leibnizian influence, in our view indicate that Kant's engagement with the unconscious is subtle and worthy of investigation. However, it remains true that, unlike Leibniz, Kant never develops the consequences of this distinction into a fully-fledged metaphysics. Whether or not unconscious ideas can be considered as the expression of a primordial Absolute making itself manifest in finite intellect is a question that Kant never addresses and this is because in his work reason and nature have already 'bifurcated', to use a Whiteheadian expression ([1920] 2004, 26). Especially in the *Critiques* this bifurcation is expressed in the clear separation of natural causality from interests that are exclusive to reason, which now emerges as the judge of itself without appeal to any experience or source outside or above it. This, as Gilles Deleuze remarks, is the outcome of Kant's response to empiricists and rationalists alike; for if, in accordance with empiricism, 'reason were of use only to achieve the ends of nature, it is difficult to see how its value would be superior to simple animality' ([1963] 1984, 1). If, on the other hand, we were to take the rationalist path, we would fall back to an end that, albeit rational, would be a superior 'Being, a Good, or a Value' outside reason (*ibid.*, 2).

The bifurcation that is necessary to preserve the autonomy of reason is already operative in the *Anthropology*. While the lectures announce a cosmological perspective in terms of which nature and human are to be considered as equal halves in the construction of a knowledge of the world as a unified whole (*Weltkenntnis*), the symmetry is quickly broken in the favour of human. As Michel Foucault puts it, after the introduction, '*Weltkenntnis* becomes the sole responsibility of an anthropology which encounters nature in no other form than that of an already habitable earth (*Erde*)' (2008, 33). If a properly *pragmatic* image of a citizen of the world is to be constructed, one must begin with 'what [the human] as a free-acting being makes of

himself, or can and should make of himself (*APV* 7:119). What ‘*nature* makes of the human being’ (*ibid.*; original emphasis) is the object of physiological anthropology, which needs to give way to the pragmatic element. Accordingly, the study of these unconscious ideations that would appear to belong to physiology is abandoned as irrelevant speculative theorising since they ‘can only be perceived [passively] as a play of sensations’ (*ibid.* 7:136). Kant’s initial cosmological vision, which would include physiology, therefore succumbs to the critical perspective as the true methodological bond between the *Anthropology* and the *Critiques*: the knowledge and realisation of a civilised world is synonymous with the self-realisation of reason which is subject only to its own nature and its own teleology.

We may already see the difficulty Kant creates here: if there is a schism between nature and human, if nature and its truth are never reached, how can one nonetheless maintain that reason has a nature and that it moreover realises its nature in a civilised culture? This is the special problem that mobilises the postulation of ends specific to reason and the intra-teleological structure of the *Critiques*. There the pragmatic element finds a different expression as the intra-teleological synthesis between the *a priori* conditions of experience and the contingent external interactions that creates a unified world (mirroring an ontotheological synthesis between god and finite intellect that, contra the Leibnizian plurality of worlds, creates *one* phenomenal world). Nonetheless, the problem of bifurcation remains. Abstaining from any positive assertion about its nature or the truth of nature other than its inability to extend beyond its own finitude, reason becomes a crystallised structure that presents itself as the seat of truth while claiming the impossibility to arrive to truth. This structure remains at the root of the definition of the knowledge of the world, which emphasises the constitutive activity of the subject variably put in the Anthropological Didactic as the ‘*Vermögen*

*Ideen zu schaffen*’, the conscious understanding, the ‘*Bezeichnungsvermögen*’, or the ‘*facultas signatrix*’: the faculty not only using but also fashioning *signs* and hence imparting meaning and movement to phenomena (APV 7:191; 7:193).<sup>14</sup>

With the unconscious idea as the potential of nature *in* man subjected to such a pragmatic orientation, the sign will never be considered as a self-standing manifestation of a living and vocal universe: this is at once the presupposition and the result of the anthropological reflection. Although Kant’s classification of signs in the *Anthropology* is very brief and makes no mention of the classical doctrines of signification, the breach with the latter is evident. Despite their various differences, the ancient accounts of the sign – from the Aristotelian *sēmeion* (σημείον), to the Stoic *sēmainon* (σημαίνον), the Epicurean *onoma* (ὄνομα) and the Parmenidean *sēma* (σημα) – at least seem to converge in ascribing the sign to nature and abstaining from too strict a separation between the natural and the conventional or cultural.<sup>15</sup> For Kant, however, the dependency of the sign on the conventional now epitomised by the ‘subject’ which he invents is clear. Not only are signs and, in particular, symbols as a subcategory of signs a product of the subject but they indicate a ‘poverty in concepts’ as well (APV 7:191). In rapport with the logic of separation between phenomena and things in themselves, the symbol – be it a cipher, an idol, or a letter – is merely a ‘*shell*’ of the thing, a ‘formality’ or ‘*custom*’ accompanying an Idea of Reason which is the real content of phenomena (*ibid.* 7:192; original emphasis). The value of the symbol as

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<sup>14</sup> Understanding is here used by Kant generically:

The word *understanding* is, however, also taken in a particular sense, namely when it is subordinated to understanding in a general sense as one member of a division with two other members; and then the higher cognitive faculty (materially, that is, considered not by itself, but rather in relation to the *cognition* of objects) consists of *understanding*, the *power of judgment*, and *reason* (APV 7:196-7:197; original emphasis).

<sup>15</sup> For a thorough and interesting account of the ‘sign’ in classical philosophy see Giovanni Manetti ([1987] 1993) and M.F. Burnyeat, (2012).

sign therefore lies in its temporary and mediating character that facilitates the passage from an inadequate idea to an adequate concept. Should the symbol be confused with the thing in itself, the final end of reason is missed: instead of a signifying faculty containing the reason for its exercise in itself, we have the unwarranted postulation of a telos external to reason resulting in unacceptable ‘mysticisms’. Apart from falling prey to transcendental illusion, it is at best ‘enthusiastic’ to assume that the symbol, or any sign, is a manifestation of the intelligible (*ibid.* 7:191).<sup>16</sup> The sign is not the thing and it has no meaning apart from our representations of the contingent. This realisation, namely the distinction of the sign from the idea, is precisely what it means for one to be enlightened. From the beginning, then, the sign is caught within a nexus of prudential demarcations between infinite and finite, God and human, the thing in itself and the phenomenon, reason and nature, pragmatism and physiology, consciousness

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<sup>16</sup> Kant here refers to Swedenborg. Interestingly, when Peirce returns in 1906 to refine his pragmatic maxim of 1878, he counts Henry James’ *Substance and Shadow* (1863) and Swedenborg himself among his influences. Warranted by the regrettable appropriation of the original maxim by a crude and utilitarian ‘practicalism’, as Peirce puts it, the re-definition first of all clarifies that, for pragmatism, thought is the ‘*living inferential metaboly of symbols*’ (*CP* 5.412; *CP* 5.402 Fn P3; added emphasis). After the metaphysical primacy of the symbol over the subject is established, it is possible for Peirce to identify the concept with the ‘whole of its effects’ as the original maxim states (*CP* 5.412; *CP* 5.402). This definition, however, has nothing to do with the model of agreement according to which the symbol must correspond to or represent some sort of action or effect or thing in itself outside it. Rather, it exposes the nature of thought as processual activity bent upon its own self-growth. As we will argue in the penultimate chapter of this thesis, thought *is* its effects; it is the manifestation of an intellectual intuition operative in us that is inherently creative of its signs. This is precisely the line of argument that we will be pursuing mostly in connection to Kant, as Swedenborg himself remains a scarce reference in Peirce. However, as regards the putative connection between the two thinkers, we would restrict it to the degree that the latter’s ‘spirit seer’ – immediately ‘seeing’ what is produced in thought – exemplifies that manifestation of the intelligible in the symbol or thought, which Kant had reappropriated as the *focus imaginarius* transported outside the seer. While Kant reinvents the seer as the thinker simply comprehending that consciousness is part of the world, we would argue that Peirce restores the same figure as the experimenter who experiences the effects of thought as creative of a world. In this sense, we could claim that Swedenborgian mysticism is reframed into a metaphysicalised view of feeling as the precondition of thought that retains both the value of a different experience of thought and the rigor of the Kantian mode of inquiry. For a detailed account of Peirce’s engagement with Swedenborg and Henry James see Eugene Taylor (1986) ‘Peirce and Swedenborg’ in *Studia Swedenborgiana*.

and the unconscious.

But for a comment from 1902, where Peirce makes a brief reference to Kant's '*pragmatic horizon*', we do not have sufficient biographical or other evidence to show whether and to what extent the young philosopher grapples with the problematic about signs as outlined in the *Anthropology*.<sup>17</sup> No matter how obliquely these lectures may figure in Peirce, our choice to begin with Kant's passing treatment of signs is deliberate: rather than the actual content of the work, we are more interested in the direction it would seem to prescribe both for a potential semeiotics and for a future pragmatism. The core argument of this thesis is that Peirce's philosophy is to be read first and foremost as an attempt to think the sign apart from the anthropological reflection. We will have the chance to see how this concern affects the Peircean construction of problems and the way they collide with the critical project as the thesis unfolds. In any case, despite the lack of any obvious engagement with the *Anthropology*, Peirce remains an excellent reader of the *Critiques*, which, as we have shown above, share the same outlook with Kant's anthropology lectures. As we will argue in the chapters to come, what he detects in the *Critiques* is an unconscious overshadowed by the archetypal intellect of God, a world defined by the knowledge of human, and an overemphasis on apodeictic certainty to the disadvantage of metaphysical speculation. As we see it, for the young Peirce the message was clear: Kant had momentarily revealed sight of the unknown but had not fully appreciated the value of the unconscious idea. The sign as well as the cosmos had yet to be conceived.

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<sup>17</sup> Peirce writes: '*Pragmatic anthropology*, according to Kant, is practical ethics. *Pragmatic horizon* is the adaptation of our general knowledge to influencing our morals' (CP 5.1; original emphasis). He then goes on with the familiar maxim of pragmatism but there is no direct connection with the *Anthropology* or the anthropological reflection. The relation between the anthropological and the cosmological is already reversed, as the consequences of ideas are to be evaluated in terms of 'general ideas, as the true interpreters of our thought' (CP 5.4) and not in terms of a transcendental subjective structure.

It is in this insight that we find the gist of Peirce's philosophy and the core problematic of the present work.

The recovery of what Kantian epistemology had had to disown in order to preserve a conscious intellect that bows before its own limitations whilst reserving for itself a privileged role is undoubtedly of primary importance in Peirce – one might even say of *vital* importance. In a series of homonymous lectures titled 'Vitally Important Topics' in 1898, the point is made categorically: favouring reason over unconscious ideation is ignoring life itself. Of course, rational thinking is not valueless. Yet, in most cases, it is merely the self-gratifying gesture of an ego that is too eager to eliminate what does not conform to it. Peirce writes:

Reason is of its very essence egotistical. In many matters it acts the fly on the wheel. Do not doubt that the bee thinks it has a good reason for making the end of its cell as it does. But I should be very much surprised to learn that its reason had solved that problem of isoperimetry that its instinct has solved. Men many times fancy that they act from reason when, in point of fact, the reasons they attribute to themselves are nothing but excuses which unconscious instinct invents to satisfy the teasing 'whys' of the *ego*. The extent of this self-delusion is such as to render philosophical rationalism a farce (*CP* 1.631; original emphasis).

Apart from clarifying the tone of Peirce's intervention in the critical project, the above passage also gives us the opportunity to dispel any illusions about our philosopher whose posthumous reputation has sadly been burdened by logicism. It is true that in recent times, Peircean philosophy has often been taken up by certain modern minds that insist on returning the sign to the possible knowledge of a cosmos reduced to a hub of illusory phenomena. In America, and after Peirce's death, pragmatism will be subsumed under the linguistic concerns of such analytically-minded philosophers as C.I. Lewis, G.H. Mead, W. Sellars, and W.V.O. Quine.<sup>18</sup> On the other side of the

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<sup>18</sup> See O'Shea (2008) and Thayer (1968).

Atlantic, and in the aftermath of logical positivism, thinkers such as Jürgen Habermas and Karl-Otto Apel will discard the metaphysical streak of Peirce's logic of inquiry and characterise it as a 'semantic [*sic*] transformation of Kantian epistemology' (Habermas [1988] 1992, 94) or a transcendental philosophy of signs and language (Apel 1998, 64-80).<sup>19</sup> With regard to both tendencies, we need only reply that there is nothing post-or anti-metaphysical in Peirce's work. As he puts it in the essay 'Pragmatism' 1907, 'pragmatism is, in itself, no doctrine of metaphysics, no attempt to determine any truth of things. It is merely a method of ascertaining the meanings of hard words and abstract concepts' (*EP2 MS318 400*). This, however, hardly qualifies it as a logicism of a linguistic orientation. As he continues: 'the ulterior and indirect effects of practicing the pragmatic method [...] is quite another affair' (*ibid.*). Having identified this ulterior purpose as the articulation of a cosmology of signs, we will proceed to show in the following chapters that semeiotics may engulf but it is reducible neither to a theory of semantics nor a semiology. We agree with Herman Parret that the supposition of 'signs and the semiotic triads having a value in themselves, independent of their philosophical motivation and their profoundly speculative inspiration' has resulted into seriously reductive readings of Peircean semeiotic (Parret 1994, *xiii*). Indeed, to anyone familiar with the persistence with which Peirce countered these two tendencies throughout his life, such a development could not be more ironic.<sup>20</sup> To disregard Peirce's

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<sup>19</sup> For further commentary on Peirce by Habermas also see: Habermas, J. (1968). For arguments against such reception of Peirce's pragmatism see Cook (2006), Abrams (2004), Osborne (2000) and Tejera (1996).

<sup>20</sup> As he put it:

It is my fate to be supposed an extreme partisan of formal logic, and so I began. But the study of the logic of relations has converted me from that error. Formal logic centres its whole attention on the least important part of pure reasoning, a part do mechanical that it may be performed by a machine, and fancies that that is all there is in the mental process. For my part, I hold that reasoning is the observation of relations, mainly by means of diagrams and the like. It is a living process. This is the point of view from

unapologetically metaphysical orientation in favour of a more ‘scientific’ or epistemological taxonomisation of signs is to turn a blind eye to a consistent orientation throughout his work, which cannot be ignored without significant loss for the understanding of his logical writings. We wish to keep our distance from both tendencies as we find them to be rehearsing the same anthropological fallacy that Peirce detects at the heart of the critical project. In our view, they display a profound misunderstanding of Peirce’s logic, which is possible only by sundering apart the multiplicity of his thought and by rendering redundant the most important constraint which made his experiment possible in the first place and which is the core problematic in the passage we have just quoted – instinct.<sup>21</sup>

With the Peircean emphasis we have detected on instinct, the Kantian problematic of the sign is effectively pulled to a domain where it can no longer recognise itself. Peirce is not sentimental about reason and the image of Man it promises. Kant had been too attached to this image to experiment with the feeling of the unconscious *in* the human or with what might come about as result of following through the link between unconscious ideation and the concept. In its pursuit of a ‘scientific’ character, the inquiry into the knowledge of world *via* the knowledge of man had become restrictive to reason and limiting of any other possible inquiry. But

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which I am conducting my instruction in the art of reasoning. I find out and correct all the pupil’s bad habits in thinking; I teach him that reasoning is not done by the unaided brain, but needs the cooperation of the eyes and hands. Reasoning, as I make him see, is a kind of experimentation, in which, instead of relying on the intelligible laws to bring out the result, we depend on the equally hidden laws of inward association. I initiate him into the art of this experimentation. I familiarise him with the use of all kinds of diagrams and devices for aiding the imagination. I show him just what part abstract thought has in the process – a quite subsidiary one. (Fragment of a letter to J.M. Hantz, March 1887, *W6*, *xxix-xxx*).

<sup>21</sup> As the thesis progresses, it will be clarified that ‘instinct’ is a term used to denote the actualised manifestation of metaphysical intuition or the metaphysical un-conscious. In anticipation of the terminology to follow, ‘instinct’ is also used alternately to the mode of reasoning famously termed as ‘abduction’ (*CP* 1.65), insofar as they are both expressions of this un-conscious in the human.

this aspiration, for Peirce, had hardly anything to do with science. Such a vision of science could only be entertained by a ‘seminary-philosopher’, someone who does not understand science but claims to found it. For a reader of Peirce, it should always be clear that the soul of science is not judgment but experimentation and an experimenter has to be true to all that she or he brings to the experiment. Besides one’s own undisputed capacity as a rational being – which is the more ‘superficial and fallible’ department of the soul – one also brings something which has no proper name and is more ‘deep and sure’, the hunch, namely, that this or that direction is right and the faith that it will be responded to by nature (*CP* 1.647). If instinct is the most important aspect in an experimenter’s arsenal, it is precisely because it demands moving away from the false guarantees of rationality that normalise or limit the experiment itself.<sup>22</sup> It is for this reason that in his philosophical experiment Peirce will never undertake to reduce to the well-defined categories of transcendental philosophy that unconscious ‘powder of feelings’ making itself felt in such phrases as ‘I don’t know how I know it but I know it’ (*CP* 8.318; 6.497). Instinct is the *experience* of a sign being present but not presented by a synthetic intellect. It is the making sensible of something unconscious at the root of thinking which forces itself upon us at those moments ‘[when] a *vital interest* is at stake’ (*CP* 1.630; added emphasis). Accordingly, philosophy can only be an endless experimentation with such ‘vital crises’ revealed in

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<sup>22</sup> Peirce writes:

Reasoning is of three kinds. The first is necessary, but it only professes to give us information concerning the matter of our own hypotheses and distinctly declares that, if we want to know anything else, we must go elsewhere. The second depends upon probabilities. The only cases in which it pretends to be of value is where we have, like an insurance company, an endless multitude of insignificant risks. Wherever a vital interest is at stake, it clearly says, ‘Don’t ask me’. The third kind of reasoning tries what *il lume naturale*, which lit the footsteps of Galileo, can do. It is really an appeal to instinct. Thus reason, for all the frills it customarily wears, in vital crises, comes down upon its marrow-bones to beg the succour of instinct (*CP* 1.630; original emphasis).

the experience of something unthought or unknown; to extend this to Peirce's reversal of the critical paradigm, it can only be what one might call, inspired by Schelling, a philosophy of un-reason or of the un-conscious.<sup>23</sup>

We need to take the characterisation of the vital interest as 'vital' quite literally. For Peirce, the experience of something vague and unknown is none other than a sign of life on its way to self-expression or self-manifestation. Operating below reason, the ever-present instinct is a force of a self-expressive nature making this process audible and visible even for a split second. Herein lies the value of Kant's 'unconscious idea' as the key to liberating signification from the subjectivist principle. One must keep open the metaphysical window to unreason, which can only be felt as the stream of life demanding our attention. To live is to conduct the biggest experiment, it is to create but also let oneself be created by signs and by the feeling that these signs *are* a nature. As long as reason ignores such experimentation, it sets up a crisis for life without itself being able to respond to vital crises. The recuperation of the sign will therefore be co-articulated with a metaphysics of the unconscious, which is evident very early on in Peirce's philosophy.

As we will proceed to show, recovering the unconscious processes at work is the first step to a speculative understanding of the growth of the cosmic process before and beyond the anthropological reflection of which it is the true ground. Such recovery will not do away with the rational subject nor will it deny it the ability to create signs. What is done away with is the illusion that the sign-making activity

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<sup>23</sup> As we will claim in the chapters to follow, this reversal is where the intersection between Peirce and German Idealism becomes most prominent. In calling Peirce's philosophy a philosophy of unreason or the unconscious, we are joining the larger stream of commentary on post-critical thought (see, for instance, Fackenheim (1996), Bowie (1993), Behler (1987) et al.) inspired by Schelling's famous dictum that the world is not the result of logical necessity but contains in it 'a *preponderant* mass of *unreason*' (Schelling, [1833-1834] 1994, 35).

imparts meaning to an otherwise inert and dead world. The sign is as much what the subject produces as what it presupposes and requires. The question, then, changes fundamentally: instead of the epistemological dependence of the sign on a transcendental subject, Peirce will put forth the metaphysics of a novel subject that is fashioned on the basis of its signs. We call this subject novel because it will no longer be able to serve the demands of Kantian anthropology. It will be demonstrated that Peirce's tracing of the genesis of reason and the subject back to the development and growth of instinct already introduces a non-human element in the human that sullies the careful demarcations that render possible the critical project. The concept cannot be clearly separated from the unconscious idea and the unconscious idea cannot be clearly separated from the body. Accordingly, the split between the pragmatic and the physiological element is not only irrelevant but also freed from anthropology altogether. In Peircean philosophy, the unconscious is neither purely psychological nor purely physiological. It rather assumes the status of a cosmic force or a metaphysical intensive that is indifferent to such distinctions. The subject is no more a constructor and user of signs than it is a sign of the creativity of nature.

The question now arises: is reason denied its own ends? Are we faced with a return to the familiar empiricist position according to which the ends of reason are the same as the ends of Nature? In tandem with the Aristotelian definition of *telos* as a cause finding its foundation in its own effect, Kant had reserved final ends for practical reason and understandably so. In a system in which no positive statement can be made about nature other than that it is us who act as its unifying principle no proper finality can be ascribed to the physical realm without committing a metaphysical fallacy. Of course, reason may still refer to natural ends (properly conceived as causality) – that is, it can refer to the unity of things as if this unity were intrinsic to

them as reflected in the validity of empirical laws. Yet, the concept of ‘natural end’ as the foundation of possibility of unity can only be said to belong to a divine intellectual intuition. In God alone can cause and effect merge into each other. As Kant maintains in the last *Critique*, we may only *reflect* upon natural ends and posit a divine cause. Finality, then, cannot be ascribed to nature; separated from God and from us, nature remains dependent on the internal transcendental teleology of the rational subject. As we mentioned previously, in the *Anthropology* this finality manifests as the cosmopolitan pragmatic ideal to come, whereas in the *Critiques* it is tied to the question of right, which is tantamount to a problem of grounding: reason is self-determining and therefore free insofar as it is its own ground.

Let us return to our question. By uncovering the unconscious, the natural, or the non-human in the human, is Peirce repeating an empiricist gesture whereby the final ends of reason are subsumed under the ends of nature? To the extent that the question rehearses all the dichotomies described above, and which Peirce is contesting, it is largely problematic. To pose it – or rather, to pose it in this way – means that one is still constrained by anthropological concerns. Yet it is worth taking a closer look at Peirce’s interaction with the empirical tradition so as to see what new elements are introduced into the question of ends. As we have argued, Peirce indeed insists on the importance of unreason as *experienced*. Such an emphasis on experience, however, is not enough to classify his philosophy as belonging to the empirical tradition. As Didier Debaise argues, by confining experience to observation the empiricists (with the exception perhaps of Hume) had been after a science of man as much as Kant had. Nature had been reduced to ‘spectacle,’ a mere repository of sense-data given to the understanding which alone could observe and define its interactions with its environment (Debaise 2007, 14-15). For Peirce, such formulations manifested the same

disconnection of reason and nature, the same rehearsal of anthropological presuppositions. Instinct will therefore be called upon to account for a gap found both in Kantian and in empirical philosophy. For instinct may summon a ‘sensation’ – if we insist upon using the term – but this sensation is resistant to recognition. Instinct, then, is not sense-perception but invokes a universe of impersonal feelings that disclose the vital dimensions of experience as neither physical nor psychological but as properly metaphysical. Through instinctual action experience is revealed as that intensive locus of reciprocal relations where the self-creative logic of nature manifests itself in signs. In this logic, which can never be conflated with a poor image of deductive rationality, we find the root of a superior speculative empiricism whereby all existing entities – human or not – converge in the experiential composition of nature which is neither unified nor homogeneous but merely ‘common’, as Debaise puts it (2007, 9).<sup>24</sup> This common nature, which is simultaneously the *prius* and the *terminus* of multiple and ever-changing unconscious geneses, is the only concept of nature speculative empiricism is compatible with. The human subject is neither the last end nor the model of the universe but merely a node in the intersection of a vast body of variations and selections similar to those that are actualised in this or that entity, or to keep up with Peircean terminology, in this or that sign.

To say that the human, like anything else, is a sign is to say that we are

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<sup>24</sup> Although in the present work we will not be concerned with the relation between Peirce and his fellow pragmatists, it is worthwhile noting the closeness between our philosopher and William James with regard to this novel conception of experience, which the latter called ‘pure’. If we were to put it in Jamesian terms, the point is no longer to split experience into ‘consciousness’ and ‘content’ ([1912] 1996, 74-75) but to offer an account of experience as ‘yet undifferentiated into thing and thought’ (*ibid.*) – namely, as it is experienced before the ‘I’ has had the chance to impinge upon it and judge it as true or not. Differences notwithstanding, it is in this sheer facticity of experience that exposes the necessity for a metaphysics of the unconscious that we find the two thinkers to converge. As we will see, in Peircean terms, this experience or ‘feeling’ demands a role in the process of signification that far exceeds the importance of consciousness.

*continuous* with the unconscious as a living cosmic force. Underlying the doctrine of synechism, the notion of continuity is prevalent throughout Peirce's philosophy. The gist of synechism is the refusal to perform 'analyses with an axe' (CP 7.570). In the same way that 'a sharp sundering of phenomena from substrates' is not admitted, so is the sundering of 'physical and psychical phenomena' exposed as unacceptable (CP 7.569-7.570). For Peirce,

[all] phenomena are of one character, though some are more mental and spontaneous, others more material and regular. Still, all alike present that *mixture of freedom and constraint*, which allows them to be, nay, makes them to be *teleological, or purposive* (CP 7.570; added emphasis).

Dated in 1892, this last passage allows us to leap into a stage of Peirce's philosophy where the question of finality is already resolved. Freedom as *telos* is neither transcendental nor dualistically opposed to constraint. They are both principles of nature which is free in that it can simultaneously undo its freedom in each actual existence and retain this freedom for future geneses. Seeing how this vision is shaped in Peirce's early cosmology will be the focus of the chapters to follow. But we can already note that it is by reopening the question of cosmic freedom that Peirce will avoid the fallacy of positing a sameness of purpose for reason and for nature: it is because nature is free that the series of signs it creates are divergent. At the heart of a philosophy of continuous genesis or synechistic growth lies the question of evolution as the production of difference out of difference: 'nature has ideal end different from its origin' (CP 6.582). To tie finality to a pre-determined linear march from simple to complex announcing an ideal to come implies a profound misunderstanding of cosmic semeiosis. *Qua* evolved out of the un-conditioned, reason may be affirmed as having its own unique finality without this affirmation succumbing to the delusion that the human is the crown or end of creation. In Peirce's philosophy there is no fallacy in

preserving the singularity or difference of the human from other signs whilst maintaining that reason needs to seek its ground in a larger process that is as much its outside as it is its inside.

With the above we are already given a first taste of all the germinal paradoxes at the heart of Peircean philosophy. Through the logic of evolutionary semeiotics, Peirce will express the concept of finality without necessity, which is a concept of contingent necessity.<sup>25</sup> In this context, the realisation of reason will not proceed through acts of knowledge alone, but through its mixture with other types of cognition, comprising a system of the ends of a living and growing Nature. This is what makes Peirce a rather odd Aristotelian. In the Aristotelian worldview, the search for the final end of human action is the same as the search for the function of the human being in a cosmic teleological hierarchy.<sup>26</sup> Peirce will affirm cosmic teleology, yet there will be neither a desire to place the human in a hierarchical framework nor will there be a foreclosure of what we may become. That towards we move is the ‘world’, which now assumes a very specific ideal sense as a ‘common’ yet ever-changing and plural. We may summon here Félix Guattari’s ‘chaos-cosmos’ or Benjamin Paul Blood’s ‘pluriverse’; as the latter writes, ‘[the] cosmos itself is no unit, but rather an egotistic fetish, which the multiverse shall dissipate and overwhelm’ (Guattari [1992] 1995; Blood 1920, 213). In a similar manner, Peirce’s properly *cosmological pragmatism* will not demand one global cosmopolis *à la* Kant but a world as a plural and free creation of signs.<sup>27</sup>

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<sup>25</sup> We will examine this peculiar reading of necessity in the final chapter of this thesis.

<sup>26</sup> See, for instance, *Politics* 1256b7-25, where Aristotle examines the possibility of articulating teleology in an imperfect world *via* organisation of the relations of elements involved in the food chain.

<sup>27</sup> We are drawing our inspiration from Isabelle Stengers’s description of the Whiteheadian project after the example of Gilles Deleuze and Félix Guattari’s definition of pragmatism as a

In what follows we will see that semeiotic evolutionism does not simply present itself as a particular philosophy on reality. Peirce makes it clear that it extends to the mode of philosophising itself. As he writes in the ‘Architecture of Theories’ in 1891, ‘philosophy requires thorough-going evolutionism or none’ (*CP* 6.14). It is this demand that we consider to sustain the affiliated doctrine of what Peirce calls ‘fallibilism’ – that kind of ‘*radicalism that tries experiments*’ because it does not dread change and does fear to admit the fact that our knowledge is uncertain and indeterminate (*CP* 1.148; original emphasis). The philosophical method, any method, cannot be given once and for everything. As cosmic logic cannot be detached from the situations in which it is operative. Pragmatism is not a grand paradigm but a method to be constantly evolved with every single act of experimentation. This is the aspect that we will argue to differentiate Peirce from certain strands of German Idealism, with the exception, perhaps, of Schelling. Indeed, Peirce’s evolutionary unconscious is very close to the latter’s objective idealism, which calls for and requires an unconscious principle at the basis of reason. Both philosophers therefore subscribe to a philosophical method of an open or trans-logical kind. We will see that when it comes to post-Kantianism, Peirce’s distance is more evident with regard to Fichte and Hegel. While both thinkers represented a major break from Kant, Fichte had resorted to subjectivist idealism thus subjecting natural phenomena to the self-presentational activity of a conscious absolute Ego – his approach therefore remained rationalist. As for Hegel’s reworking of Schellingian objective idealism into absolute idealism, Peirce was of the opinion that it was equally susceptible to rationalism (*CP* 6.217). Hegel’s genius was the elevation of Kantian pure reason into a superior level that superseded

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‘free and wild creation of concepts’ (Stengers [2002] 2011; Deleuze and Guattari [1991] 1994). We would, however, extend such creation beyond philosophy, as for Peirce the sign extends beyond its province.

the fallacies of classical reason. Nonetheless, the dialectical method of removing the recurring contradictions in self-reflection – resulting in the necessary movement from logic to the philosophy of nature and the philosophy of spirit – had mistaken the experimental character of logic. The universe could not be the product of a logical deduction of reason even if this reason were of a superior kind. Hegelian dialectics still did not allow nature to be free. About this In 1898, Peirce writes:

[Where] freedom is boundless nothing in particular [results]. In this proposition lies the prime difference between my objective logic and that of Hegel. He says, if there is any sense in philosophy at all, the whole universe and every feature of it, however minute, is rational, and was constrained to be as it is by the logic of events, so that there is no principle of action in the universe but reason. But I reply, this line of thought, though it begins rightly, is not exact. A logical slip is committed; and the conclusion reached is manifestly at variance with observation. It is true that the whole universe and every feature of it must be regarded as rational, that is as brought about by the logic of events. But it does not follow that it is *constrained* to be as it is by the logic of events; for the logic of evolution and of life need not be supposed to be of that wooden kind that absolutely constrains a given conclusion [...] The effect of this error of Hegel is that he is forced to deny [the] fundamental character of two elements of experience which cannot result from deductive logic (CP 6.217; original emphasis).

The ‘rationalism’ Peirce proposes here has nothing to do with the anthropologically-blind rationalism Hegel adheres to. Semeiotic logic will refuse to operate in an absolute and purified intra-reflexive space and instead plunges into the great plurality of unrecognised facts and circumstances – it is in this sense that it will be characterised as abductive or hypothetical or experimental. The ground of reason need not be *deduced*. It might as well be *felt* in the non-human workings of nature within the finite. We are thus presented with the intensification of the Kantian critique of rationalist metaphysics into a critique of the deduction of the universe by absolute reason. As we will proceed to show, such intensification is bound with Peirce’s implicit but evident affiliation with the Platonic philosophy of the *topos* that enables him to put forth a sophisticated and

generative notion of experience as the basis for a post-critical cosmology of the sign.

Having given a preliminary account of this series of connections, we may now begin our investigation into the logical, ontological, and meta-critical components that will help us plot the trajectory of Peirce's thought. In the first chapter, we will be overviewing the Kantian approach to signification and the post-critical thinkers' various responses in order to situate Peirce with regard to the demand for a genesis of the concept following the crisis of reason. After singling out transcendental logic, the problem of synthesis, and the exercise of the faculties in schematism as the three main problems Peirce will need to address, we argue that his response – cross-referenced with the main thinkers of German Idealism – is driven by the recovery of a non-rational and non-psychological element in Kant that also enables him to contest the crisis of psychologism. The second chapter then examines in detail how Peirce plots a post-critical and un-psychological route to synthesis, through a special emphasis on his early metaphysical writings and especially his notion of 'uncritical transcendentalism' expressed in his [*Treatise on Metaphysics*] in 1861. In these texts, we discover that Peirce's response to the separation between reason and nature inhibiting a cosmology of the sign is founded upon his particular conceptualisation of continuity as generative of difference, which we attempt to unpack by investigating his engagement with mathematical topology. It is argued that Peirce's sophisticated framework of continuous differential relations enables a unique understanding of the noumenon as the abstract metaphysical surface of feeling – or, as we will call it, the *thing at the limit* – between concept and sensation. Immanently providing the ground for synthesis in experience, this felt surface is explained as the *topos* for the pure and natural genesis of Images and their evolution into concepts. In this formulation, which hints at the re-appropriation of the creative power of Kant's intellectual intuition in experience and

initiates a triadic rather than a dualistic definition of the concept, we witness the transformation of uncritical transcendentalism into a superior kind of empiricism that opens us the possibility for the definition of the sign along cosmological lines.

The passage from the anthropological to the cosmological conception of the sign is completed in the second part of the thesis, in which we undertake to deepen the analysis of Peirce's concept of continuity by bringing forth the philosophical, and chronologically prior, component of his topological thought. In the third chapter, such deepening is carried out by excavating the Platonic streak in Peirce's project. Based on the latter's unconventional reading of the Platonic Idea as experiential and potential, we refine the roots of his superior empiricism and explain the genesis of the concept as part of a cosmic Logic of expression by 'junction'. This metaphysical movement of 'junction', which we define as the twinning of the revelation and construction of Nature, strengthens the concept of continuity as evolutionary or generative of difference, clarifies the pragmatic method of philosophy as experimentation with signs, and prepares the understanding of how Peirce proposes to answer the question of the ends of reason. The next two chapters examine the consequences of the early expression of his cosmo-logic in a more systematic fashion. In particular, the fourth chapter traces the effects of the natural logic of expression on the concept of 'representation' up to its transformation into Peirce's signature concept of 'interpretation'. Understood in expressive terms, interpretation provides the basis for comprehending the triadic nature of the sign as cosmological, after which the qualification of cosmic logic as 'semeiotic' logic becomes obvious and the operation of the infinite in the human is clarified as a felt semeiotic impulse. Finally, in the fifth and final chapter, all the previous lines of argumentation are drawn together to elucidate Peirce's mature formulation of the Categories of the First, the Second, and the Third

with which semeiotics reaches its fullest expression as natural philosophy of the sign. We then embark to uncover the elements in this philosophy that enable Peirce's transformation of negative theology into an ethics of semeiosis in terms of which the question of what the final end of the human is may be meaningfully asked and answered.

## Chapter 1: Between (Post-)Kantianism and Psychologism

### 1. The Kantian Impact

We have noted already that Peirce's articulation of an evolutionary semeiotics has frequently been studied in terms of his deep interaction with the scientific theories of his day.<sup>28</sup> Although admitting the utmost necessity of taking these aspects into account, the course this thesis proposes to follow is different. Our aim is to bring to light the earlier route Peirce takes, one that is rooted in the conceptual landscape of the Kantian *Critiques* and is sensitive to the metaphysical tensions the latter give rise to. With this move, we stand to make the argument that Peirce's semeiotic logic expresses a distinctly cosmological orientation. Against the prioritisation of the logical-epistemological over the metaphysical components of the Peircean *opus* we have mentioned in the introduction, the ambition of the first part of this thesis is not only to show that the two components are inseparable but that metaphysics is the fundamental concern from which semeiotics sets out. It is from this vantage point that our cosmological understanding of the sign may begin to materialise. To open this reading up, we will be examining those aspects of Kant's critical philosophy that pertain to the relations between critique, teleology, and anthropology. We will see how the link between the transcendental method of the *Critiques* and the transcendental account of human culture as the realiser of the final ends of reason restricts signification to the realm of the anthropological. This link is what Peirce will have to negotiate in order to restore the sign to an intrinsically meaningful nature. By

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<sup>28</sup> For excellent commentary on Peirce and the sciences see M. Moore (Ed.) (2010), Zalamea (2003), Reynolds (2002), E. Moore (Ed.) (1999). Eisele (Ed.) (1985), Eisele (1979).

tracing the genesis of semeiotic logic in this way, we will be able to flesh out the aspects that make possible a ‘cosmo-logic’ of signs.

Although Peirce is relatively reticent about Kant’s *Anthropology*, the centrality of the *Critiques* for his project cannot be overstated. The ‘Copernican revolution’ pulsates throughout his work and is one of the rare hinges that his monumental but otherwise scattered *opus* affords. Peirce himself is explicit on the heritage of Kantian ideas informing his own philosophical ventures. Already in his 1865 Harvard lecture on Kant, he assumes an unmistakably scathing position against what he perceives to be the tendency of his day: ‘[Kant’s] preëminence’, he writes,

has attracted a class of parasites, who live by tearing him to pieces. It is a fine thing now-a-days, to pick a flaw in the great *Critic*’s reasoning. Every new man who wishes to vindicate his pretensions to philosophic power must display it by the discovery of an error in Kant. In this way, he has come to be reputed the great erratic thinker’ (*W1 MS101* 1865, 241).<sup>29</sup>

Of course, this claim should not be taken to imply any smooth influx of concepts from critical philosophy into Peirce’s work. Despite his indebtedness to the critical project, Peirce’s relationship with Kant is no less controversial and, at times, profoundly ambivalent. In more argumentative moments, Peirce’s struggle with the demands of critical philosophy brings his endeavours to a system which treats the critical project both as an inspiration and as a rival doctrine. In fact, Peirce will speak of his own system as an attempt to stretch the Kantian project to its full consequences and even go beyond it. Yet, in general, this polemic can be seen as restaging the critical project with such an impetus that it eventually brings about the genesis of pragmatism as one of the most particular schools philosophical modernity has known.

The determination of Peirce’s relationship with Kant requires intricate negotiations that may well exceed the scope of this thesis. However, if we are to

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<sup>29</sup> ‘Preëminence’ and ‘Critic’ are Peirce’s spelling.

evaluate the evolution of his logic of signs, it is essential to try to clarify some basic points of his encounter with Kantianism as the turning point *par excellence* in modern philosophy. This section will therefore focus on unearthing some important aspects of the critical project, which resonate throughout Peirce's work. Our purpose, for the time being, is to sketch out a preliminary general conceptual and historical context by attempting a first digression into Kantian philosophy that will help us bring our problematic into focus.

The impact and significance of the Kant's intervention into the adventures of modern philosophy are already well known: aiming to purify metaphysics of ill-posed problems, Kant's project represents a sustained effort of confronting the question of the *beginning* of philosophy itself. The objective, as it is put forth in the *Critique of Pure Reason*, is to secure the very right of philosophy to speculation by securing the 'highest principles' of *a priori* cognition (*CPR* A150-158/B). Before pronouncing metaphysical judgments, the philosophical process must first be bent through self-assessment: it must guarantee its own validity by questioning its 'participation in the practice of judgment' (Pippin 1989, 23) which can only be done through the scrutinisation of its own medium, reason itself. By necessity, then, the operation of reason can no longer be grounded in what is given to us in experience. For reason to be its own judge, the cognitive process through which we transcend the experiential to reach knowledge must be grounded by unconditioned yet conditioning principles which are proper to reason alone and which reason has an 'interest' in realising (Deleuze [1963] 1984, 2-3).

Logic has a key role to play, at least in the initiation of this process of realisation. The possibility of the self-critique of reason depends on the answer to the following question: to what extent can logic determine the universal and necessary

principles of reality effective for all possible experience? Or, to what extent can logic account for knowledge? We can see that for Kant the value of logic for a rigorous philosophical thought is posed precisely on the level on which metaphysics fails to become a ‘science’. Insofar as it aims to address this failure, Kant’s own engagement with the scope of ‘logical conceptions’ in effect continues a track that predates the critical project. As Richard Velkley notes, the argument that the contingent empirical cannot provide any necessary or universal structure to enable knowledge is already driving Cartesian and Leibnizian philosophies, which turn to ‘logical’ criteria immanent to the human mind as offering a safer and more ‘complete’ foundation for knowledge (2002, 82-85). In the work of Leibniz, logic is also marshalled to account for what is available *a priori* to mind irrespectively of the world of ‘real existences’. It is precisely this assumption, with its implied breach between the realms of thought and existence, Thought and Being, that adds a pressing layer to Kant’s question beyond and before deciding the value of logic for a ‘scientific’ metaphysics. For even if one accepts the primacy of logical mental principles for knowledge, there is still the persistent problem of *applying* these principles to the ‘non-logical’ real (Kerlake 2009, 106).<sup>30</sup> In other words, to claim that there are *a priori* logical concepts necessary for knowledge tells us almost nothing about the internal relation between ‘formal’ logic and the real world – or, about the correspondence between analytical/identical logical truths and synthetic/non-identical physical truths. As Leibniz would put it, we still have

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<sup>30</sup> Here is the crux: if the criterion for logical truth is the law of identity or non-contradiction, then its obvious significance for metaphysics is that all entities have to be identical or not-contradictory in order to be possible (i.e. ‘*X* is *X*’ or ‘*X* is not *non-X*’). There are, however, non-identical real truths which are not necessarily contained in the concept of the subject but whose existence alone is evidence of their very possibility (e.g. ‘*X* is sitting at the desk’, or more famously, ‘*X* crossed the Rubicon’).

not completed the passage from nominal definitions to real, and hence demonstrable definitions of things ('Source of Contingent Truths' [1685] 1989, 98).<sup>31</sup>

Kant enters the foregoing problematic by retracing and transforming the trajectories already plotted by Leibniz and Hume. To circumvent the difficulties resulting from the gap between the analytic logical and the synthetic real the latter had already advocated a non-causal (i.e. parallel and non-identical) correspondence between logical conceptions and real existence. Leibniz had proposed the ontological determination of real possibility in terms of the *non-logical* (because non-identical) principle of sufficient reason ('Monadology' [1714] 1989, 217). Hume, on the other hand, had reduced the relation between logic and the real to an epistemological problem regarding the justification of our knowledge claims. We cannot linger more on the particulars of these two great philosophical systems. But we can say, along Christian Kerslake, that insofar as they accept the necessity of an 'extra-logical' or non-identical causal connection between the concept and the real, all three philosophers agree (2009, 103). Their respective inquiries revolve around two points: the analytic/synthetic distinction qualifying the connection between subject and predicate in judgment; and the *a priori/a posteriori* distinction qualifying the modality of the connection in relation to experience. Seen in this light, the *Critique of Pure Reason* is a refinement of the above distinctions. Kant concurs that the 'reason' for the relation between subject and predicate in synthetic judgments (the determination of the principle of the real) needs to find its *ground* in laws different from those governing logical forms: the concept of causal relation needs to be equally synthetic/real. However, his investigation into the problem expresses a double objection to Leibniz

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<sup>31</sup> We are citing the title of Leibniz's essay besides its estimated date on account of the particularity of his work, which is spread into notes spanning many years.

and Hume's philosophies. On the one hand, he challenges the referral of the principle of sufficient reason to other synthetic principles with the claim that, in doing so, Leibniz avoids the question of sufficient reason's own grounding. On the other hand, against Hume he argues that the beliefs established through the imposition of logical associations upon the real are indistinguishable from the work of the imagination; as such, they cannot be regarded as objective knowledge (*CPR* A100, A112ff). In both cases, then, Kant finds that attention to the proper grounding of knowledge is missing.

The novelty of Kant's contribution lies precisely in his attempt to provide an adequate framework for the ground of real possibility. For Kant, real possibility presents us first and foremost with a problem of connection: in order for concepts which have no 'logical (analytical) kinship whatever' to connect [in judgment], there must be a 'third something' that enables the connection (*CPR* A259/B315). Famously, the necessity of this 'third something' becomes even more pressing in cases such as geometrical propositions where the relation between subject and predicate is not identical and yet it is universal. This is the paradox of the 'synthetic *a priori*', which marks critical philosophy's departure from the old distinctions and through which the *third thing* emerges as an 'empty function' expressing the need for a contingent possibility to be determined by an *a priori* principle. Initially, Kant will locate the extralogical nature of this 'empty function' to 'intuition', namely space and time, to fulfil the role of a priori non-logical principles (Ameriks 2003, 98-111). The introduction of space and time as 'ideal forms of sensibility' marks a significant turn in the logic/reality connection. Of course, the necessity of keeping the logical distinct from the real continues to hold. However, because of the *ideal* nature of forms of sensibility, the 'real' can no longer be unproblematically synonymous to 'the existing'. These ideal forms are deemed equally real. With Kant, then, existence is split into

intelligible substances and ideal forms, into the thinkable inner nature of things and their phenomenal spatiotemporal variations or accidents. But since all that is given to us are phenomenal variations, the noumenal aspect of reality is rendered unknowable. Accordingly, logical concepts immanent to mind still refer to its capacity to think noumena but the determination of 'real possibility' can only be said of the phenomenal. Nature has already bifurcated.

It is in the *Critique of Pure Reason* that the above framework matures into a full conceptualisation of the extralogical ground of real possibility. Because of the split introduced into the fabric of reality, pure understanding can no longer identify the logical thought of noumenal substance with the appearance of the latter given to us in sensibility. The difficulty, then, becomes one of specifying the nature of the relation between intelligible objects and their appearances especially where this relation is not self-evident – that is, in the case of synthetic necessary judgments. Kant's originality is to show that synthesis, in fact, expresses a determination not of the subject concept but of the object and, by extension, of any object involved in the judgment. This object, for which Kant invents the concept 'object=x', is not present in the logical subject because it contains intuitive/sensible components and hence its nature is different from the nature of concepts (*CPR* A105/B106). Synthesis, then, discloses the existence of the general concept of 'any-object-whatever' which is absolutely necessary yet differently *determinable* with every novel synthetic judgment. The problem of knowledge, the problem of relating subject and predicate, is thus answered by a *sine qua non* form of 'something general = x' (*CPR* A104) that becomes the extralogical *a priori* principle of synthesis upon which the determination of real possibility is grounded. With this configuration, Kant is able to propose a truly non-causal connection between the formal/logical and the sensible: the understanding does not cause noumenal substances

but neither do noumenal substances cause our formal representations. The connection is possible only through the ‘object=x’ relating the affection/phenomenon with the ground of the affection in a formally open way.

The particularity of such an understanding of the ‘object’, which is extralogical by having neither extension (a denoted object or class of objects) nor comprehension (a connoted object or content) but is *a priori* and empty, determinable yet always undetermined, will work to differentiate Kantian logic from ‘general’ or formal logicism. First of all, it enables Kant to convert the logic/reality distinction into a distinction between the *logical* and *real* uses of the understanding. In the *Critique of Pure Reason*, the stakes of this distinction are described in terms of the necessity for a ‘non-formal’, so to speak, kind of logic conceptualised as:

a science of pure understanding and of rational cognition [the pure cognition of reason], whereby we think objects completely *a priori*. Such a science would determine the origin, the range, and the objective validity of such rational cognitions. It would have to be called *transcendental logic*. For it deals merely with the laws of the understanding and of reason; yet it does so only insofar as this logic is referred a priori to objects – unlike general logic, which is referred indiscriminately to empirical as well as pure rational cognitions (*CPR* A57/B81–2; original emphasis).

[General] logic abstracts from all the contents of the cognition of the understanding and of the difference of its objects, and has to do with nothing but the mere form of thinking (*CPR* A54/B78).

It is important to note that Kant does not object to a logical or ‘general’ use of the understanding that is admittedly ‘formal’ in its ability to abstract from any reference to any particular object or content. However, as we have seen so far, he contends that this cannot be the last word on synthetic judgment. The mere fact that we can think ‘logically’ by representing the world through concepts is not adequately expressive of what the understanding does in its highest use as a ‘faculty of cognition’, that is, when it binds together mental representations in the unifying activity of judging. Knowledge is

not simply the *a posteriori* empirical synthesis of the given sensible but the spontaneous act by which the apperceptive subject relates this given to an object. To recall Deleuze's comment, 'representations are not united in a consciousness unless the manifold that they *synthesise* is related to the object in general' ([1963] 1984, 15; original emphasis). Without this 'object=x' as determinable ground no knowledge is possible. The object in general is to be thought as 'the correlate of the "I think" or of the unity of consciousness; it is the expression of the *cogito*, its formal objectivation. Therefore the real (synthetic) formula of the *cogito* is I think myself and in thinking myself, I think the object in general to which I relate a represented diversity' (*ibid.*, 15-16; original emphasis).

From this standpoint, if general logic cannot be unproblematically extended beyond a proper domain into metaphysical questions, it is because it is not capable of accounting for the 'object=x' without which not even itself is possible. A new kind of logic, then, is necessary to account for the 'real' rather than the 'logical' use of the understanding. This new logic, which, as we saw above, is termed *transcendental*, hinges precisely on the form of any possible determinable object as properly 'problematic', a form that occupies the line between the non-causally connected noumenal and the phenomenal aspects of reality. Given the split in the real, its task will be to account for the *empirical* use of the understanding when it is used in conjunction with a possible intuition (*CPR* A77/B102) and, simultaneously, to expose/deduce the *transcendental* use of the understanding in which intuition is not even possible.

By deducing what is necessarily and universally involved in every synthetic act of the understanding, Kant constructs a logic that is not simply every bit as traditional 'general' logic (Tolley 2012, 418); more importantly, as Velkley notes, transcendental logic emerges as 'the meta-logic which is the critique of logical thought,

that is, of the extension of formal logic beyond its own competence into questions of metaphysics' (1986, 147-8). This is because, to borrow Kerslake's words, 'the 'logical world' is [...] a problematic projection, which [...] must change its sense with each action of the real use of the understanding [...] What seem to be logical possibilities must have their shifting index in the 'real' possibility which exists for the concrete subject' (Kerslake 2009, 191). We can now understand why formal logical thought cannot account for the self-grounding activity of rational thought at the heart of the critical project. Transcendental logic represents the first step to the more general project of the immanent critique of pure reason as a logic of implicit criteria that we appeal to when we make a claim to objectivity or reality. Only then can the problem of truth come to the foreground: for even though a form of cognition may be logically accurate (by not being self-contradictory, for instance), it is nevertheless possible that it may not agree with its object. Put differently, only when relating judgments to *a priori* objects may we speak of *true* judgments.<sup>32</sup> And only transcendental logic, by referring to the ground of possibility of knowledge, can render the establishment of a formal criterion, a ground for truth possible.

It is from this angle that we can appreciate Jean Hyppolite's remark about the investigation of the ground of reason as 'the discovery of a logicity of being which replaces the being of logic' ([1952] 1997, 58). With the ground of philosophy having become 'transcendental-epistemological' we have a fundamental departure from the

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<sup>32</sup> As Kant explains:

Since transcendental logic deals with construction of objects of experience, for the purposes of *this* logic objects must have internal structure. The part of transcendental logic that expounds the elements of the pure cognition of the understanding and the principles without which no object can be thought at all, is the transcendental analytic, and at the same time a logic of truth. For no cognition can contradict it without at the same time losing all content, i.e. all relation to any object, hence all truth (*CPR* A62-3/B87; original emphasis).

Platonic legacy of philosophy as the participation of the thinker in the rational Idea through the method of reminiscence. After the discovery of the ‘logicity of being’, the right and the beginning of philosophy are determined by a different kind of participation, this time in transcendental subjectivity. This transcendental subjectivity finds its expression in the self-grounding activity of reason that provides the formal criteria for our claims about this world and to which the world itself is subject. Kant’s transcendentalism thus leaves us with the architectonic for an activity of reason no longer in need of appealing to a natural principle outside it but grounding its validity immanently in itself. Accordingly, the transcendental method becomes the proper method of philosophy, which now begins as a purified epistemology of the human aiming to determine and thus *ipso facto realise* the true nature of reason’s ends. As an analysis of human nature, the first *Critique* therefore is only means toward a higher practical end, which is the vocation of Man, and toward a higher form of philosophy, which is a moral philosophy. It is this securing of the final end of reason unto itself that is the fundamental pledge binding together all three *Critiques* with the *Anthropology*.

## 2. After Transcendental Logic

It is possible to take Kant for his word when he says that his method is constructive rather than destructive and argue, as Émile Boutroux does, that ‘[Kantian] criticism restrains in order to secure’– to secure, in a Socratic gesture, a double metaphysics of nature and of morals through the activity of human legislation in both domains (1912, 327). Or, the case can be made, as Michel Foucault notes in ‘What is Enlightenment?’, that *critique* is, essentially, an art of existence and hence a ‘critical ontology’ of ourselves carried out by us upon ourselves (Foucault 1984, 42). Yet the

premisses of such a clearly anthropological endeavour will make it very difficult for philosophy, in general, to be anything but a self-grounding activity never far from the danger of circularity. Despite its claim for the immanent realisation of reason, transcendental logic will be seen as falling short of the goal of serving as a means for a natural and a moral philosophy. The problem is first of all structural: while Kant decides to shift the determination of real possibility onto the phenomenal, he nonetheless keeps the unknowable noumenal field thus reintroducing transcendence in the process of self-grounding. The dualism between noumena and phenomena on which the immanent realisation of reason supposedly depends will be criticised for not managing to ward off the old dogmatic vision of ‘[a] second world, of the intelligible world’ (Hyppolite [1952] 1997, 58). The gap between knowledge and Being, or between human and nature that Kant appeals to eventually causes more problems for the articulation of a moral philosophy than those they solve.<sup>33</sup> The passage from a natural teleology to a physical theology, as Kant had envisaged it, stumbles upon in the paradoxes of an objective knowledge that is its own judge by referring to a transcendental realm it cannot penetrate.

This latter problem is one of the basic tenets subtending the post-Kantian philosophers’ objection to the impossibility of access to the unconditioned principle of subjectivity that must lie at the basis of knowledge. From Fichte to Schelling and Hegel, the paradoxical nature of the *thing-in-itself* as formally empty yet absolutely necessary will be taken to reiterate the old ontologies of essence, thereby impeding the truly transparent and *immanently* self-differentiating expression of reason. Insofar as Kant makes the unity of concepts depend on the *thing-in-itself qua* Idea of reason, it will be objected that the criteria for the use of concepts remain fundamentally transcendent. It

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<sup>33</sup> For various perspectives on Kant’s moral philosophy see Sedgwick (2000).

becomes crucial, then, to argue that the submission of phenomena to the apperceptive subject's operation of transcending is not the final word on philosophy. The main endeavour after Kant will be how to provide an immanent account of the transcendental field and, by extension, to reconcile the demands of critique with metaphysics by negotiating the ability of transcendental logic to express the Absolute. The problem philosophy tries to address after Kant therefore becomes not simply one of finding prior conditions but a way of philosophising capable of accounting for the genesis rather than the analysis of representation.<sup>34</sup> As Hegel puts it in his famous 'Difference' Essay, the 'need of philosophy' itself must now express itself in the surmounting of the overwhelmingly disruptive structures appearing as antinomies and separations in transcendental philosophy ([1801] 1977, 174-195).

Especially with regard to the problem put forth in the first *Critique*, the argument for genesis is that in order for the passage from epistemology to metaphysics to be completed, the noumenal must be articulated without recourse to *a priori* concepts that are simply traced from experience. Such tracing will be criticised for not being able to fully account for the proper correspondence between the concept and its very phenomenal determinations. The problem can be narrowed down to the following: if a concept can be actualised differently with every possible synthetic judgment, then it is always inevitably amplified and altered *with* its sensible variations rather than simply *applied to* them. In this sense, tracing the transcendental from the empirical only blurs the processes of concept formation and application since any judgment involves operating with incomplete concepts whose apriority is thereby challenged (Keslake 2009, 186-189). The post-Kantians will thus attempt to renegotiate the way the Kantian project proposes to circumvent this gap between representation and the

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<sup>34</sup> See Maker (1994), Beck (1978), Schrader (1967).

experiential manifold, which in the first *Critique* is fulfilled by the notion of ‘schematism’ acting as the mediator between a concept and a sensible instance.

We would not be far from the truth if we were to say that the problems of schematism are the defining concern of the post-Kantian response. Faced with the problem of the concept as rule, Kant had resorted to the transcendental schema of time as the activity *par excellence* of the a priori faculty of imagination (*CPR* A138/B177; A142/B181). The choice of time over space to play the role of the schema in this case is understandable: space may be the pure form of outer sense determining the relation of the subject to external objects, yet *in itself* it is internal. This, after all, is the caveat of Kantian philosophy for which an ‘externalist’ viewpoint can only be a metaphysical aberration. Space is therefore subordinate to time as the pure form of interiority, which is the condition not simply of external but also of internal phenomena. Drawing from the manifold, the role of the schema of time is to condition the application of a general concept to a set of sensible intuitions. ‘Homogeneous on the one hand with the category, and on the other hand with the appearance’, as Kant put it, the schema is supposed to ‘make the application of the former to the latter possible’ (*CPR* B177). In other words, schematisation involves the creation of a pure diagram by which the sensible experiential variations of a concept could be shown to be representationally *related* to it (Deleuze ‘Kant, Cours Vincennes’ 1978).

Despite the summoning of schematism to reconcile concept and appearance, the fact that Kant ultimately leaves their logical unity a mystery – ‘an art concealed in the depths of the human soul’ (*CPR* B180) – will eventually cause one of the greatest challenges to posterior thought. Including Peirce, for many philosophers after Kant, the fact that the latter postulates the synthesis of percept and concept but does not delve into how exactly it is achieved will form a serious drawback in the critical project. In

particular, the schematic correspondence between conceptual determination and a specific organisation of intuition in experience will be taken to establish a rather tentative link between two faculties that were considered by Kant himself to be fundamentally different in kind in the first place: the activity of the understanding in the concept (based on noumena) and the passivity/receptivity of intuition in the phenomenon. It is worth mentioning, here again, Hegel's famous riposte to the problem.

As he puts it in his *Lectures on the History of Philosophy*:

The connection of [understanding and intuition] is again one of the most attractive sides of Kantian philosophy, whereby pure sensuousness and pure understanding . . . are now united. There is thus here present a perceptive understanding or an understanding perception; but Kant does not see this, he does not bring these thoughts together: he does not grasp the fact that he has here brought both sides of knowledge into one, and has thereby expressed their implicitude. Knowledge itself is in fact the unity and truth of both moments; but with Kant the thinking understanding and sensuousness are both something particular, and they are only united in an external, superficial way, just as a piece of wood and a leg might be bound together by a cord' ([1840] 1995, 441).

The above comment summarises a view that sees schematisation to be rehearsing a variant of the logic/reality impasse rather than offering an adequate solution. The problem Hegel names, which becomes even more pressing for the Ideas of reason as concepts where intuition is not even possible, is first and foremost articulated in terms of 'sense'. Without a different account of the connection of empirical concepts and Ideas with their possible manifestations, which schematism does not answer, concepts remain empty, devoid of sense (Hyppolite [1952] 1997, 59-60). Interestingly, such a functional problem, which permeates Romantic philosophy, is the correlate of another yet difficulty, this time of a logical kind: if reason is a faculty different in kind from others, how is it capable of regulating both over them and itself without the activity of self-critique being rendered equivocal? From this angle, solving the problem of the

discontinuity between concept and impression becomes tantamount to addressing two interrelated aspects. The problem of sense will therefore induce a turn of attention from the *fact* of cognition to the *act* by which concepts are generated *in* experience through the synthesis of the imagination (see Sedgwick 2000). In other words, the question for the post-Kantians becomes one of accounting for the genesis of the faculties in a way that does not simply presuppose but tries to bring to view their hidden relations.

We will not dwell here on the different responses the various post-critical philosophers specifically offer in relation to transcendental schematism. We have entered the logical and functional difficulties it entails because, in our view, these are merely the formal components of a deeply metaphysical concern. Indeed, we find the demand for a genetic account of reason to be nothing but a cry for a metaphysics that would account for this fundamental vicissitude found in the nature of human intelligence. As we have noted already, in the *Anthropology* this vicissitude had appeared as the unconscious idea. By the time of the *Critiques*, however, this mode of ideation – incompatible, as it were, with the anthropological vision of pragmatic teleology – has already succumbed to the gravitational pull of the *thing-in-itself* with a nod to an archetypal intellect. Nonetheless, Kant's attempts to tame the unconscious by pushing it to an intelligible world are neither sufficient nor final. Despite having assimilated unconscious ideation to *transcendental* categories and a divine intellect, this undercurrent of human nature will return in the *Critique of Practical Reason* in 1788 to challenge the very realisation of a pragmatic human ethics separated from nature. As it is well known, in this second *Critique* the ethical problem is manifest in the relation between rational understanding and its practical use. In a move parallel to the first *Critique*, Kant's concern becomes the dependence of ethics on accepted metaphysical views. The question is 'whether the principle of morality has its basis in

experience or *a priori* in reason' (Engstrom 2002, *xvi*). Or, to use Kant's words, 'whether pure reason is sufficient by itself to determine the will, or whether reason can be a determining basis of the will only as empirically conditioned' (*CPrR* 15).

At the heart of the above problematic is the reconciliation of the two distinct concepts of nature developed in the first and second *Critique* respectively: the concept of determinable nature as the whole of phenomena and nature as the moral world where freedom is possible. Indeed, the moral manipulation of rational understanding depends on a split between the domains of the theoretical/speculative self and the practical self. Of the two, the speculative component, as Gilles Deleuze notes, corresponds to 'legislation by natural concepts' in the faculty of knowledge ([1963] 1984, 31). In this case, the understanding serves the speculative interest of reason by presiding over phenomena 'in so far as they form a sensible nature' (*CPrR* [1788] 2002, 31). By contrast, the 'practical self' corresponds to 'legislation by the concept of freedom' in the faculty of desire where reason promotes its own practical interest, its domain being 'things in themselves thought as noumena in so far as they form a suprasensible nature' (*ibid.*). Their difference is therefore put forth in the following terms: although both natures share the form of law, the practical self is not determined like the theoretical self is – namely, by objects given in experience through the senses. The 'practical self' does not have to refer to something external to itself – namely, to represent a phenomenon. Rather, it is that subjective form that can be called 'free' precisely because it 'gives itself a law by means of its reason' (Deleuze [1963] 1984, 32) and it is because of its teleological autonomy that the incarnation of the Good is possible in an otherwise deterministic nature. 'The law of this autonomy', as Kant writes, 'is the moral law, and it, therefore, is the fundamental law of suprasensible nature' (*CPrR* 97/101; 47/49); it is the purely formal and universal foundation of the

will to act by abstracting from its particular subject matter. The Idea of freedom, then, which is put forth in the first *Critique* in terms of the ‘empirically unconditioned’ concept of causality (*CPrR* 15), re-enters the critical project with a renewed importance. Contrary to the indeterminacy of the ‘Idea of freedom’ in speculative reason, moral law as the regulative principle of desire gives the ‘Idea of freedom’ a practical determination. We thus have an *a priori* synthesis of autonomous will, whereby the Idea of freedom is made into a form for external action at the same time that it is posed as an internal necessity.

That freedom acquires an objective reality *within* autonomous will does not entail that it is given in itself to the human. From the standpoint of ethics, we are indeed given regulative principles but the Idea of freedom remains inaccessible to pure reason. Through the moral law the *thing-in-itself* is given the sense of a ‘fact of reason’ that is realised in its sensible effects but cannot be speculatively arrived at through experience or intuition (*CPrR* 91). The problem, then, which returns again in the second critique, is a problem of application: Ideas of reason are called to play a legitimate and active role in the establishment of rational-practical beliefs guiding actions but it is unclear how this role is achieved. To circumvent the problem Kant resorts to ‘symbolism’. The suprasensible may be out of bounds yet we can employ *symbols* that stand for that suprasensible. Such signification works by postulating that sensible nature is merely a ‘type’ of an intelligible nature, thus permitting us to relate the higher law of freedom to our more familiar natural law lying at the basis of experience. The symbol gives the Idea of freedom an object by ‘analogy’ from an object in experience – with the proviso that it does not illegitimately transfer to this free intelligible nature any forms of intuition that do not belong to it but merely refer to it as containing ‘the *form of lawfulness* as such’ (*CPrR* 70, original emphasis).

Nonetheless, despite this ‘symbolic’ analogy, the formal correspondence between the sensible and suprasensible natures, which are different in kind, remains problematic. In other words, it remains unclear how a model operative in the faculty of knowledge can function in the faculty of desire.

The stakes of this new rupture are more clearly laid out in the difficulty pertaining to the *power* of practical judgment. As Kant admits, all moral actions can only be experienced. Yet there remains something deeply paradoxical in wanting to find a concrete application of something suprasensible in the sensible (*CPrR* 68). We are facing a problem of connecting two elements different in nature similar to the one we confronted in the determinative judgments of pure theoretical reason. Yet this time there are no means to counter the problem of the connection. However questionably, at least in the case of the speculative reason the connection between intuitions and pure concepts could be accounted for by making the forms of intuition equally *a priori* and by basing their subjection to pure concepts on the activity of schematisation. But if the object of the ‘morally good’ is suprasensible, it is easy to see that the appeal to sensible intuition is not very promising: nothing corresponding to it can be found in any sensible intuition. The power of practical judgment is subject to ‘special’ difficulties ‘due to [the fact] that a law of freedom is to be applied to actions as events that occur in the world of sense and thus, to this extent, belong to nature (*CPrR* 68).

The above returns us to the problem we encountered in the first section of this chapter, which is none other than the determination of the internally variable relation of the faculties expressed differently in the two critiques. As Deleuze explains, these two stages of the critical project, ‘invoke facts, seek out the conditions of these facts, and find them in ready-made faculties [...] [But they] point to a genesis which they are incapable of securing on their own (2004, 61). Practical reason presents us

with the suprasensible certainty of moral action that cannot be known but can only be experienced as something demanded of finite beings. Culture, the very pragmatic domain where human reason would finally realize itself and rise above nature, paradoxically invokes something outside reason proper – namely, *nature as example*.

To account for the special difficulties of practical judgment, Kant turns in the third *Critique of the Power of Judgment* to aesthetic judgment, where ‘symbolising’ as a *tertium quid* between the sensible and the suprasensible – or between physical and moral nature – is expressed as a concern about the global structure of judgment. In this last work, he delves into a kind of *reflective* judgment that should not obscure the art of connection between faculties, as is the case with determinative or practical judgment. The motivation sustaining the special emphasis on reflection in this third *Critique* is the attempt to flesh out a pure faculty of judgment prior to its usage in any particular realm. Kant’s goal is precisely to avoid the problems of application resulting from the *legislative* activity of judgment in acts of knowledge or ethical acts. What is needed to account for ‘the mediating link between the faculty of cognition and the faculty of desire’ as Kant writes in the *Preface*, is attention to a kind of judgment which is *reflective* in that it does not presuppose a certain established relation of the faculties or an *a priori* concept for its object but ‘is obliged to ascend from the particular in nature to the universal’ (*CJ* 180).

In the first part of this last work, the judgments in which the movement from the particular to the universal becomes obvious are aesthetic judgments of the beautiful and the sublime. Contrary to determinative speculative and practical judgments, which have distinct natures, interests and objects, the particularity of aesthetic judgments is that they do not point to a ‘third’ concept of nature besides those of a sensible/deterministic nature and suprasensible/free nature. Such judgments are

only meant to embody the mediation between *phusis* and moral nature (or culture) put forth in the first two *Critiques* by having an interest neither in objects of sensation nor in objects of the will. The form of the object involved in them rather refers to the reflection of a particular object in the imagination. There is, however, a paradox here: in judgments of the type ‘this is beautiful/sublime’, the form of the object nonetheless seems as though it expels us from the process of judging. The beautiful or sublime object seems to assume a life of its own, as if it was meant to please us with every contingent encounter. Yet, properly speaking, it is not the object *per se* that pleases us. What we feel is its very presentness, quality, radiance – its sheer effect on us at the same time that we feel our lack of a category with which to judge it. For Kant, then, aesthetic reflection is neither about objects nor about their prior ground of possibility. Objects are not beautiful or sublime in themselves. In fact, by experiencing the beautiful or sublime object as peculiarly autonomous and ‘meaningful’, we reflect our own condition oscillating *in-between nature and freedom*. What matters in aesthetic judgment is the feeling of our own activity of reflection, which is particular in that it does not start from an *a priori* concept. Neither legislating over its objects, nor finding its end in them, the faculty of pure judgment retreats unto itself (*CJ* Intro. 4-S). It refers to the purely subjective exercise of the faculties and thus becomes the apex of auto-affection in search of a category.

As we have hinted above, such a search already demands that the subjective relation of the faculties be reconfigured: if nothing is given *a priori* by the active faculties then, as Deleuze puts it, ‘*a free and indeterminate accord between all the faculties*’ is called for ([1963] 1984, 49; added emphasis). With a single stroke, Kantian philosophy reveals the mechanism of the faculty of feeling at the same time as it makes it prior to knowledge and desire. In theoretical and practical judgments,

faculties can enter into hierarchical relations only because they manifest a prior ability to exercise themselves freely in relation to one another. Seen in this light, to judge the given aesthetically or to reflect upon the given without a prior concept is to perform an act of genius, as Kant notes in the *Anthropology*; it is nothing less than a pure and free act of creativity bent upon the path of ‘*discovery of the universal for the particular*’ (APV 7:201, added emphasis).

The outcome of this discovery in aesthetic reflection is the very creation of a symbol. Through the usage of symbols the universal Idea is given a foothold in a particular instance of sensible nature (for instance, the beautiful is a symbol of the Good). But here the law of synthetic unity previously expressed as a transcendental principle of the understanding becomes a function of pure aesthetic experience. In other words, the creative act of symbolising refers only to the internal or subjective unity of the faculties in a way that does not point to an end outside the unity itself. Herein lies the value of aesthetic judgment as the ground of symbolisation for bypassing the ‘special difficulty’ of practical reason: as a pure subjective form of finality that rules out any natural determinate end, aesthetic judgment would seem to return to practical reason a sense of self-finality that would allow it once again to rise above sensible nature. For although nature gives us the raw material, so to speak, of aesthetic experience, it is not in itself part of the beautiful but it is contingent on the function of our faculties – it is ‘we who receive [it] with favour’ (CJ 350).

The form of internal finality peculiar to aesthetic judgment and symbolisation may point to the solution that would eventually bridge the gap between speculative and practical reason and pave the way to a moral philosophy. Nonetheless, to use Deleuze’s words, sensible nature ‘remains in some sense external to the free accord of the faculties among themselves’ ([1963] 1984, 65). Indeed, aesthetic

judgment is not the last word on the problem of the external finality of nature. The question of ends returns in the second part of the last *Critique* with the far more difficult to tackle teleological judgments – the second type of reflective judgment (*CJ* 359-361). The difficulty with this second type is that it is no longer the *form* of the judgment that is considered internally purposive. Contrary to aesthetic judgments, teleological judgments point to a purposiveness inhering in the *object* itself. The case is particularly obvious for such objects as living organisms: upon the experience of other living beings, we judge them assuming that they have been produced according to some purpose or design. Such a judgment, however, is a demand placed upon us by the object itself – the very organisation of these being as *organisms* appears as obeying a kind of intention that cannot be merely our projection. Contrary to the appearance of phenomena as intensive and extensive manifolds in the first *Critique*, in the last one we are faced with objects that dismiss us from the judgment by being ends in themselves – by being expressions of empirical laws that hold without us in the first place.

From the above standpoint, the finality of the exercise of the faculties in teleological judgment is not a purely internal affair as is the case with aesthetic judgment. The external influence of nature, which was merely hinted at in Kant's discussion on the aesthetic reflection, now comes to the forefront: with teleological judgment, we are confronted with an objective form of finality clearly referring to *natural ends*. Of course, like aesthetic judgment, teleological reflection still demands that a category or concept (in this case, the concept of reflection itself) be invented rather than be provided *a priori*. It still demands a free accord of the faculties. Nonetheless, this accord is now dependent on nature which is doing *us* a favour. Nature appears as a system of ends, 'free from all restrictions of our legislative cognitive power' (*CJ* 209'-211') as in teleological judgment nature is no longer experienced as

an aggregate of parts to be unified into a whole through the logical use of the understanding.<sup>35</sup> The experience of living organisms uncovers nature as a purposive whole from the beginning. We may therefore say that we have an *intuitive* presentation of nature containing both its own formal basis and ‘the connection of the parts that makes this form possible’ (*CJ* 408). Proceeding almost in the capacity of archetypal intellect, teleological reflection presents us with the possibility of moving from the whole of the given to the particular – not by presenting the possibility of the whole as dependent on the parts (i.e. not from universal categories to the empirical) but by presenting the parts as dependent on the possibility of the whole.

By allowing us to proceed *as if* in the standard of the intuitive or archetypal intellect, reflection opens up the possibility of this type of intellect being released from the status of a merely regulative Idea of reason.<sup>36</sup> It would appear that the unconscious, the force of production that would bring nature and culture together, temporarily escapes the province of the divine to become the true limit of our knowledge. To use Deleuze’s words, intuitive intellect is brought to ‘[express] to infinity the proper *limit* of our understanding, the point at which it ceases to be legislative in our speculative interest itself and relative to phenomena’ ([1963] 1984, 63). This is indeed a major moment in the Kantian *opus*, which we will be examining

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<sup>35</sup> Cf. ‘Though understanding asserts that there is (this system in terms of) such a principle, it does not know this principle [...], i.e. it does not know what sort of thorough connection there is among all appearances. It is judgment which fills this gap by presupposing a principle of its own’ (*CJ* 397).

<sup>36</sup> Of course, this possibility is never expressed in Kant as it would entail a metaphysical error – *our* Ideas of Reason can never be *constitutive* but merely *regulative*. As we will argue shortly, this is the reason why the question of the finality of nature is approached in a way so that the movement is always from natural ends to the idea of divine cause as their condition and not the other way round. If the latter scenario were true – if we were to comprehend a supreme intentional cause in nature and then move on natural causality – then our understanding would be of the order of God’s. As Kant puts it: ‘Physicotheology is reason’s attempt to infer the supreme cause of nature, and the properties of this cause, from the *purposes* of nature (which we can cognise only empirically)’ (*CJ* 437; original emphasis).

in relation to the Peircean formulation of experience shortly. But we may now conclude this section by saying that this limit is the very essence and significance of reflection: through the latter, it is possible for human intellect to ascribe purposiveness to nature without claiming authorship of this purposiveness. In this sense, the connective thread of Kant's last work with the first two *Critiques* remains unbroken. The immediate and absolute necessity of all things is only graspable by a divine intellect, which we must continue to refer to as the foundation of all finality if we are to avoid illegitimately metaphysical usages of reason. As finite beings, we are still operating within the limited character of our understanding and it is because we cannot *know* organisms as necessary or purposive that we can only *reflect* upon them as such. We can therefore only stretch the concept of a deterministic nature as far as we can and then admit the workings of teleological principles in it (*CJ* 385-389).

In this movement we have the first climactic point of the *Critique of Judgment*, which is the passage from a natural teleology to a physical theology as the true condition of our comprehension of natural ends (*CJ* 437). Yet the movement is not yet complete. Physical theology itself can only go so far in revealing the final purpose of creation – it can still ‘not inquire’, as Kant puts it, ‘into the purpose for which nature itself exists’ (*ibid.*) and therefore remains an inadequate theology.<sup>37</sup> For a proper theology to be articulated, one that would tell us something about the final intention of divine creation, ‘physicotheology’ would need to be supplemented by practical or

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<sup>37</sup> In Kant's words:

[Physicotheology] still leaves us without the final intention, about which nature does not tell us anything, nor ever will, while yet, apart from this final intention, we can form no common point for all these natural purposes, no adequate teleological principle: no principle that would allow us to cognise all the purposes [as united] in a system, and also to form a concept of the supreme understanding, as cause of such a [systematic] nature, that our power of judgment could use as a standard for its teleological reflection on that nature (*CJ* 440-441).

moral theology – the only theology that allows us to posit the *a priori* existence of a purposeful supreme being by virtue of accounting for the workings of practical reason within us (*CJ* 439; 443). Only through the *freedom* of our power of desire (namely, only through our independence from nature), can an adequate teleological principle, out of reach of theoretical reason, fully articulated that allow us to attain a corrected vision of natural teleology as the springboard for the practical idea of a fundamentally moral – ‘omnibenevolent’ and ‘just’ – God (*CJ* 444). It is at this point that the contribution of reflection to the advancement of a moral philosophy and an ‘ethicotheology’ (*ibid.*) finally begins to stand out. The passage from the *causal* relation of phenomena by dint of physical laws to a *moral* relation between nature and a supreme cause, showcasing the workings not just of any purpose but of a *final* purpose in nature, needs reflection as its very basis (*CJ* 445).

With reflective judgment, which, as we saw, acquires primacy over determinative and practical judgments as the function of the most basic experience, the criteria of moral conduct begin to be co-articulated with an inherently meaningful and free nature. In other words, reflection provides the smoothest possible transition from natural teleology to a moral theology. From that point onward, it becomes possible for Kant to answer definitively the question of what the final end of creation is. The final end of creation must be a being which is not simply directed to purposes but one which has a say in the determination of these purposes as independent of natural causality. That being is man ‘considered as a noumenon’ or as a ‘moral being’ (*CJ* 435) for whom the question of ‘why’ that would justify its existence is irrelevant since man is *ipso facto* the highest purpose of creation and the judge of nature. Buttressed by the ‘as if’ of reflective judgment, the supplementation of moral theology through reflection presents us with a final end that is practically determined by a being who, in that ‘as if’,

comprehends its own freedom and its status as an object of natural teleology. It is this self-reliance that ultimately allows man to occupy a superior place in the order of things.<sup>38</sup>

It is clear from the above that the passage from nature to the highest practical interest of reason still postulates *God* as a supreme moral demand (*CJ* §87). Pragmatic culture is never complete without a moral theology. At the root of the ethic of the self-reliance of reason remains the separation of God from the subject and further separation of both from nature that continues to make the dialogue between the presence and absence of ends required by reason difficult. The final end of nature remains the human. Nonetheless, we still find in the third *Critique* a proto-metacritical orientation that will define many of the concerns of German idealism. On the one hand, by staging a conflict between sheer presence and objectivity, reflective judgment is already a sign that Kant is almost on his way to a pure phenomenology of the phenomenon and thus anticipates the philosophy of Hegel, but also of Husserl and Heidegger. An effect presents itself in its full radiance, making the subject sink back into itself to mirror what looks back at it. Or to borrow Peirce's beautiful expression, an effect presents itself that makes us confront 'what stares us in the face with a glare' (*CP* 1.134). On the other hand, reflection gives us the principles in terms of which the human can aesthetically grasp nature as an organic system of ends, which enables the springing of the various natural philosophies of Romanticism. But we also find in this last work the principles confronting the human subject with the split between the sensible and the suprasensible *within* it, thus making the task of unifying these two

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<sup>38</sup> As Kant argues: 'Man is the only natural being in whom we can nonetheless cognise, as part of his own constitution, a suprasensible ability (*freedom*), and even cognise the law and the object of this causality, the object that this being can set before itself as the highest purpose (the highest good in the world)' (*CJ* 435; original emphasis).

natures the final end of practical reason while simultaneously uncovering an almost unconscious source of creativity that was hitherto reserved for the divine. In effect, then, despite the problems posed by the last *Critique* for a philosophy of nature, in it Kant also indicates the only path left for a proper metaphysics: to articulate a natural philosophy in a system of pure reason, one needs to turn to the capacities of intellectual intuition or the Absolute. If a way could be found to expound upon the productive potential of archetypal intellect, then positing a natural philosophy from the beginning without reverting to dogmatic metaphysics might also be possible.

As we will argue in the coming chapters, it is this latter the route Peirce will follow. By restoring to the finite subject a creativity similar to that of archetypal intellect, he will be able to propose a definition of the phenomenon as sign that is properly aesthetic or experiential beyond the constraints of subjective finitude. The sign will literally become the manifestation of the activity of Nature that is *de facto* purposeful or final prior to the intervention of conscious recognition. In this way, semeiotic will embody a philosophy of nature that is moreover a philosophy of the unconscious and an ethic that is not a moral theology. Correlatively, the parameters of the question of the vocation of the human being will change as the latter will no longer need to transcend Nature to fulfil its purpose. But before we have the chance to explore all these implications, it will be necessary to situate Peirce within the post-critical climate, which is the topic of the next section.

### **3. From Idealism to Psychologism**

In their attempt to bypass the confinement of philosophy within finite

phenomenal knowledge, most of Kant's successors will precisely try to pick up on the ruptures of the critical project and especially the possibilities opened up in his late work. If reflection becomes so important for the post-Kantians, this is because the invention of categories it necessitates creates a supreme opportunity: with aesthetic and teleological judgment, we seem to step out of the epistemological confines of possible experience, where phenomena are determined *a priori*, and into real experience, where phenomena contain in themselves the very possibility of being determined or reduced to objectivity. We are therefore faced with a world that is no longer transcendently pre-determined but with a world and a subject that are in the process of being simultaneously fashioned along with the discovery of the categories. In other words, it no longer makes sense to ask about the *a priori* conditions of experience. With subjective constitutive activity almost approximating in experience the activity of intellectual intuition the proper question is that of the intrinsic conditioning or self-determination of experience and, by extension, of the genesis of the subject in experience.

To articulate a genetic account of reason, many thinkers will attempt to resolve the bifurcation of the world into the phenomenal and the noumenal, the problem of *schematism*, and the special difficulty of practical reason that we have already mentioned. However, not all of them will approach the problem of genesis from an angle that will lead to a philosophy of un-reason or the unconscious expressed as such. In Fichte, for example, God becomes pure knowledge, or rather the pure content of knowledge. Containing and unifying in itself the plurality of finite intellects and wills, the divine is the absolute Ego as the unity of infinite Reason and infinite Will to which it is impossible to ascribe the form of consciousness (Fichte [1797-1800] 1994). Such impossibility, however, does not lead to the articulation of a metaphysical

unconscious that would moreover be a capacity of Nature. Although Fichte's system reintroduces a vital sense of immanence of the infinite in the finite by deducing the Kantian forms of thought from the free *actions* of the absolute, it remains largely subjectivist in orientation. The shift, in other words, to a deontology of the absolute is bound to an immanent but persistently intra-reflexive 'I' which makes it difficult for material nature to be anything else than the emanation of an acting and knowing subject, whether infinite or finite. Nature remains secondary to moral nature which finds its supreme expression in the self-realisation of practical reason in God and its finite equivalent in the unification of the self with other selves where the free and complete merging of reason and will is possible (Fichte [1800] 1987).<sup>39</sup> As for Hegel, whose criticism of schematisation we have mentioned previously, the notion that the absolute Idea *becomes* consciousness hints at the status of the absolute as unconscious.<sup>40</sup> In other words, it is possible to suggest that the notion that – after

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<sup>39</sup> We consider Eduard von Hartmann's discussion of the unconscious with regard to the various philosophers of German Idealism to be one of the most comprehensive and interesting accounts as it leads to his own Philosophy of the Unconscious (Peirce mentions von Hartmann in his chapter on 'Psychognosy' in 1902 (*CP* 7.366)). With regard to Fichte, Von Hartmann writes: '[Elements] of the Unconscious are to be found in Fichte, but they appear only casually, as vague hints scattered here and there, and these promising thought-blossoms were soon buried under the late growths without having borne any fruit' (von Hartmann [1868] 2000, 24). Indeed, at various points in his oeuvre Fichte suggests that a part of us is generally 'driven' by the reciprocity between natural forces and 'striving' or action upon these forces so that they may be satisfied. The first expression of freedom would therefore to be found in our consciousness of this drive. As this consciousness lacks a definite object, freedom could be said to dawn as unconscious (*SWIV*, 129-130). Nonetheless, this unconscious manifestation is overshadowed by our other part, which is that of free choice of action that may overcome through reflection the actions we perform due to our lower faculty of desire. In the end, even natural drives are said to arise out of reflection itself which is the higher domain of 'pure' or 'spiritual' drive (*SWIV*, 130-131). Nature thus remains separated from the free self as something that can be resisted and acted against.

<sup>40</sup> Mills gives a very interesting account of Hegel's take on the 'unconscious' in his book, *The Unconscious Abyss: Hegel's Anticipation of Psychoanalysis*, where he traces the latter's usage of the term 'Abgrund' or 'Ungrund' to influences from Schelling, neo-Platonism, and Boehme and, interestingly, Fichte (2002, 32-43). Some of the points of convergence Mills traces between Fichte's absolute ego and Hegel's subjective spirit are the primacy of action as a process of self-determination or self-grounding and the emergence of the ego or spirit from a self-enclosed or internal state *via* a process of contradiction and self-imposed tension that

externalising itself in Nature and having become its own object – the Idea returns to itself as conscious spirit in a universal historical unfolding, implies un-reason as the source of this process (Hegel [1807] 1977, 266-268; 276-278). But Hegel, too, does not fully yield to a philosophy of the unconscious that such a becoming-consciousness presupposes. The unfolding of the Idea is fully determined by reason. Consciousness is a necessary and eternal moment in the Absolute and, indeed, it governs the processes of nature, which is dialectically sublated in the concept. The growth of human culture is thus tantamount to the history of rational ideas expressed in epochal succession. Be it practical or absolute, both for Fichte and for Hegel reason comes before nature.

Of the post-critical philosophers who stretch the implications of Kantian philosophy to a philosophy of unreason and to whom Peirce maintains a greater degree of affinity, Schelling is the most noteworthy example. Against Fichte, Schelling objects to the production of natural phenomena by a conscious Ego. As he puts it, Fichte's absolute Ego is suspiciously close to the human ego ([1833-1834] 1994, 106). And in any case, 'nothing [...] [prevents] [the self-conscious Ego] from going [...] back to a stage where it was not yet conscious; to assume a region below the now existing consciousness, and in this an activity of which [it is] no longer conscious, and which enters into [its] consciousness only as a result' (*ibid.*, 109). This comment gives us the general flavour of Schelling's difference from all the thinkers we mentioned above. For Schelling, the primordial agency of a productive unconscious is not to be conceived in terms of a rift between nature and self-consciousness. Nature is neither for-self and opposed to self as nature nor it is conscious; rather it is both the breeding

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results in the abolition of all contradiction in the unity of consciousness. However, while for Fichte the self always retains an infinite longing for completion, Hegel places this longing at the heart of spirit as its motor force. In this sense, argues Mill, Hegel addresses 'the role of the abyss' in a way that is methodologically and logically more consistent than Fichte's (*ibid.*, 43).

ground and the undoing of consciousness, or a proto-self which is the pre-reflexive or a-rational force at the heart of existence. Escaping conscious recognition yet presupposed by it, this irrational pre-self is the true ground of consciousness, making it the task of philosophy to account for the genesis of reason and of things without recourse to the logical movement of the concept (Schelling [1811-1813] 2000, 44-46).

We have lingered on some of the major responses that define the post-critical mindset, since the deliberation upon a different type of intellect that could initiate a natural philosophy of the unconscious will be our guide in the genesis of Peircean semeiotics. As we will show, the root of Peirce's mature semeiotics is to be found in his early explorations of the openings contained in the Kantian architectonic, which, although not systematised, are nevertheless of extreme importance in comprehending the cosmological orientation of his philosophy as a whole. Again, regarding the affiliation of this orientation with the idealist nexus, we cannot draw definite conclusions. As we have mentioned in the introduction, his interaction with the great thinkers of German idealism does not fulfil the criteria of a detailed scholarly engagement. Of course, there are a few parallels Peirce himself draws. As he writes in a comment on the Hegelian doctrine of continuity in 1892, 'My philosophy resuscitates Hegel, though in a strange costume' (*CP* 1.42). Later, however, in 1893, in 'The Essence of Reasoning' the following appears: 'The author might with more reason, call himself a Hegelian; but that would be to appear to place himself among a known band of thinkers to which he does not in fact at all belong, although he is strongly drawn to them' (*CP* 4.21). Again in 1893, in the 'Reply to Necessitarians', we find another reference: 'I carefully recorded my opposition to all philosophies which deny the reality of the Absolute, and asserted that 'the one intelligible theory of the universe is that of objective idealism, that matter is effete mind.' This is as much as to say that I

am a Schellingian, of some stripe' (*CP* 6.605). Before these scattered references, the post-critical appeal to aesthetic experience beyond the scope of speculative cognition and practical decisions forms a springboard for the young Peirce who, in the period between 1857 and 1859, writes four essays inspired by Friedrich Schiller.<sup>41</sup> In these essays, a concern for the power of judgment as the principle enabling us to apprehend the contingent, to connect concept and feeling, emerges through an emphasis on the creative potential of 'genius' to create rules anew, almost in the manner of a different intellect.

Even though these references are not enough for one to trace a definite philosophical indebtedness to this or that aspect of German idealism, they are nonetheless important for evaluating the context within which Peirce operates.<sup>42</sup>

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<sup>41</sup> 'The Sense of Beauty never furthered the Performance of a Single Act of Duty', 'Raphael and Michelangelo Compared as Men', 'Analysis of Genius', and 'The Axioms of Intuition after Kant' (*W1* 1857-1866, 10-16, 31-36).

<sup>42</sup>At this point, we need to pause to address a possible objection. Our discussion of the *Critique of Judgment* vis-à-vis Peirce might be contested from the viewpoint of chronology and evidence. Even as an oblique influence, establishing a direct connection might well prove unsupportable, given that comments on the last *Critique* are mostly absent. This fact has often led to the view that Peirce is to not be classified either as a neo-Kantian or as a post-Kantian philosopher (see Harret 1994). His comments on aesthetics are considered to be part of a largely idiosyncratic framework, which also backed up by his own frequently professed 'ignorance' on the matter. Compared to the early and very pronounced vocation of pragmatism as an 'ethic', the rather late conceptualisation of pragmatism as an 'esthetic' is taken as proof that Peirce had not really broached the subject before 1902. Indeed, it could be argued that given the geographical and historical particularities, pragmatism might not be readily assimilable into previous continental philosophical traditions. For example, as John Stuhr notes:

although Peirce used familiar terms – ethics and aesthetics – in labelling and subdividing normative science, he assigns unfamiliar, special meanings to these terms [...] aesthetics does not determine what is beautiful or ugly, and ethics does not determine what is right or wrong. For Peirce, aesthetics and ethics (and logic) do not directly evaluate phenomena. Instead, they are theories or logics of such evaluation. They establish ideal norms in terms of which particular evaluations are meaningful and possible (1994, 6).

Idiosyncrasy aside, we have chosen to flesh out the masterly culmination of the critical project in the final *Critique of Judgment* precisely in order to avoid such reductivist readings of Kantian aesthetics as 'determining what is beautiful or ugly'. We may turn to Peirce himself for help on this point. As he writes, the conception of '[the] beautiful [as] relative to human taste, right and wrong [as concerning] human conduct alone, logic [as dealing] with human

Especially as regards Schelling, and despite technical differences, it is impossible to miss the connection. Wherever applicable, we will be drawing attention to this connection in the following chapters. For now, we need only note that, in general, Peirce finds himself confronted with many similar questions post-critical philosophers ask. One of the most telling instances of his affiliation with the metacritical program is visible in his take on the problem of schematism. From Peirce's viewpoint, the critical 'discrimination between the intuitive and the discursive processes of the mind', is too 'sharp' (CP 1.35). If the problem of the *tertium quid* is to be addressed, Kant's question needs to be transformed. In his 1898 essay on 'The Rationale of Synthetical Inference', he writes:

Immanuel Kant asked the question, 'How are synthetical judgments *a priori* possible?' [...] Not so much by his answer to this question as by the mere asking of it, the current philosophy of that time was shattered and destroyed, and a new epoch in its history was begun. But before asking *that* question he ought to have asked the more general one, 'How are any synthetical judgments at all possible?' How is it that a man can observe one fact and straightway pronounce judgment concerning another different fact not involved in the first? (CP 2.690, original emphasis).<sup>43</sup>

The question voiced in the above passage, which is to be thought within the problematic of the *formation and application* of concepts we outlined in the previous section, allows us to plot the first inroads into the genesis of semeiotic logic. As we

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reasoning' is sign of 'an almost ineradicable narrowness' of mind (CP 5.128). The implications of the *Critique of Judgment* for the formation of the concept and the genesis of representation are such that we cannot ignore its importance for semeiotics without loss of subtlety. Of course, our purpose is not to dissolve Peirce's thought in the powerful stream of Kantian project. Like any other philosopher, he returns to previous streams to reconfigure and transform them. But if Peirce is remotely serious about his affiliation to the Romantics, then the problematic of 'discovery' might give us a focus and a clue as to what the novelty of pragmatism is and why the mature Peirce turns to 'esthetics'. We agree with Joseph Barnouw that aesthetics is a 'neglected origin of pragmatism' (see Barnouw 1988).

<sup>43</sup> This passage recapitulates a comment from 1869. The earlier version reads: 'According to Kant, the central question of philosophy is "How are synthetical judgments *a priori* possible?" But antecedently to this comes the question how synthetical judgments in general, and still more generally, how synthetical reasoning is possible at all' (CP 5.348).

will see later, it is at this junction that the concept of the ‘sign’ finds its proper place. But it is here clear that, for Peirce, maintaining a clear distinction between the passivity of feeling and the activity of the understanding and tracing the very novelty of every such judgment to the conscious unity of the subject, says very little about *how* the mediation is possible or about the novelty involved in every such judgment. If anything, this gap is a ‘logical lapse’, indulging in ‘the habit of thinking that [ratiocination] only begins after [observation] is complete; and wholly fails to see that even the simplest syllogistic conclusion can only be drawn by observing the relations of the terms in the premisses and conclusion’ (*CP* 1.35).<sup>44</sup> This habit of thought to which the Kantian system is oblivious, this largely unconscious tendency to disregard precisely what is felt in reasoning is a focal point in Peircean philosophy. In particular, the Kantian decision to rest the highest principle of the representation of the manifold on the transcendental unity of the apperception will be criticised as leaving undetermined the unconscious processes at work by artificially disjuncting the relation of the faculties in cognition. The critical endeavour falters precisely on adhering to a certain image of logic and on failing to remedy the gap between logic and reality. One should first begin with ‘how logic itself arises’ (*CP* 3.154), with searching for underlying relations of the faculties that enable empirical cognition. It is with this clear nod to the problem of the genesis of reason, that Peirce’s connection with the questions defining post-Kantianism becomes prominent. As he comments schematism: ‘Kant’s doctrine of the *schemata* can only have been an afterthought, an addition to his system after it was substantially complete. For if the *schemata* had been considered early enough, they would have overgrown his whole work’ (*CP* 1.35, original emphasis). This overgrowth, which Peirce will pursue by stretching schematism to the territory of unconscious ideation,

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<sup>44</sup> ‘Premiss’ is Peirce’s spelling.

will eventually uncover nature or the non-human in the human that is at the root of a process of semeiosis.

It is important to note that Peirce's struggle with the presuppositions of anthropological reflection extends beyond his engagement with the crisis of reason. In fact, such struggle cannot be thought apart from a second crisis that most post-critical philosophers do not have to face – namely, the attack to philosophy coming from the crisis of psychologism. Peirce begins his work almost a decade before the 'anthropological turn' in psychology reaches its cusp in the 1870s to give way to what later became known as psychologism. Nevertheless, even in writings previous to the 1870s, he already anticipates the rise of a latent psychological image of thought. The adherents of this image postulated that philosophers' appeal to transcendental or dialectical logic as a foundation for philosophy was misguided. The basic psychologist argument was that a clearer understanding of psychological laws was necessarily prior to the formation of philosophical concepts. Accordingly, psychology, with its nod to a reliable 'scientific' ground, was to function as a condition for philosophy itself – as a corrective for its methods and directions.

Taking the lead of John S. Mill, who subsumed logic under psychology, several English and German logicians, such as Hamilton, Sigwart, and Erdman identified logical laws with the empirical generalisations of human reasoning.<sup>45</sup> With logic posed as 'the physics of thought' (Lipps qtd. in Kusch 1995, 3), the implication became clear that philosophical questions were to be answered through 'concrete'

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<sup>45</sup> As Mill wrote:

Logic is not a Science distinct from, and co-ordinate with Psychology. So far as it is a science at all, it is a part, or branch, of Psychology; differing from it, on the one hand as the part differs from the whole, and on the other, as an Art differs from a Science. Its theoretical grounds are wholly borrowed from Psychology, and include as much of that science as is required to justify its rules of art (Mill 1979, 359).

empirical research. It could be argued that the proclaimed empiricism of faculty psychology became possible only after the critical project had been articulated – that is, only after modern subjectivity was already split into the ‘empirical’ and the ‘transcendental I’. In a way, in their emphasis on introspection, the proponents of psychology were already Kantian, albeit of a crude kind. Indeed, the discourses of the time manifest a visible tendency to abide by the epistemologically-oriented character of introspection put forth by the critical project while contesting the apriority of the results of this introspection (see Kusch 1995; Jacquette 2003). Transcendental philosophy will therefore be re-tailored to fit the demands of a newly emerging taste for reductive physicalism and the inquiry into the *a priori* condition of knowledge and experience will be reinterpreted as a mere examination of the physiological or psychological substrates of cognition (Ash, 1980; Wundt 1889). We would not be far from the truth if we were to say that the bone of contention in all these debates is no other than a thinly disguised interest in the grounding of concepts. The novel attempt to ground concepts onto the empirical phenomenality of psychological subjectivity is directly supported by a postulated dichotomy between objective truths and subjective conceptions of the truth. In terms of that dichotomy, it will be argued that normative categories need to pass through factual categories; that the way we *ought* to think first needs to go through the way we *do* think. Consequently, *a priori* philosophical truths are postulated as ‘facts’ of the empirically verifiable introspective operations of our mind (Dreher 2003, 229). The basis is thus set for a psychologist image of thought, which will cause heated debates pertaining to the relation between logic and psychology.<sup>46</sup>

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<sup>46</sup> The rivalry between the logical and the psychological approaches runs very deep for us to do full justice to it here. Nonetheless, we may note that the preference of logic over the

Peirce will never stop criticising the genesis and fallacies of anthropological psychology and its purported link to logicism. In fact, it is out of this criticism that some of the most scathing moments in his philosophy are to be found. As he writes in 1865:

There are some erratic persons whose views differ as much from Kant as they do from each other. Thus Mr. Mill says ‘Logic is the science of the operations of the understanding which are subservient to the estimation of evidence.’ Duval-Jouve says it is the science of the facts of the intellect, of its laws, and of the rules which serve to /regulate//guide/ its exercise. Krause says it treats of the law of the activity of the soul in thought. De Morgan says it is that ‘branch of inquiry in which the act of the mind in reasoning is considered’ (W1 MS94 1865, 161-163).

Peirce’s particular problem with the above views is the supposed reducibility of logic to ‘operations of the understanding, acts of the mind, or facts of the intellect’ (*ibid.*). Inevitably physicalist and positivist in orientation, such reducibility is, as we saw, possible through the so-called ‘empirical’ method of introspection. Nonetheless, for Peirce, introspection is only pseudo-empirical. It is impossible for one to arrest the stream of thought and arbitrarily fragment it into instants for the purposes of

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empiricism of the psychological has been operative even before the emergence of ‘psychologism’ as such. It could be said that all the philosophers we have mentioned above converge in prioritising the logical element – Kant manifests this tendency with transcendental logic, Fichte with the *Wissenschaftslehre* whereby the structures of subjectivity are deduced from identity and contradiction, Hegel with dialectical logic as the ground for a phenomenology of consciousness, Schelling with the primal logic of the unconscious, and of course, as we will see, Peirce with semeiotic logic. Closer to Peirce, we may also note the Husserlian self-proclaimed logical ground of phenomenology, as well as Heidegger’s anti-psychologist outlook in the articulation of his phenomenological existentialism. The tendency is equally prominent in the analytic tradition, with Carnap, Frege, and Wittgenstein amongst the most vocal proponents of a logical method of philosophy. As it is well known, the bone of contention between continental and analytical schools of thought has been whether individual thinkers succeed in evading the psychological or not as their opponents tend to object. A case in point is, of course, Husserl’s phenomenology of whose interaction with psychology Gilles Deleuze gives a very brief but interesting account in *Cinema I* (see Deleuze [1983] 1986, 56-7). It is unclear whether Peirce is extensively familiar with the debate surrounding the Husserl’s work. Nonetheless in 1906 he does take a stance by considering it as psychological in orientation (*CP* 4.7). His decision to abandon his initial term ‘phenomenology’ for ‘phaneroscopy’ to describe his doctrine of phenomena might be read as an effort to distance himself from Husserl (as well as from Hegel, according to his claims, although his objection against the latter has to do with hyperationalism rather than psychology) (*CP* 8.298).

examination. 'Time', writes Peirce, 'will not stop for us to think' (*W3 MS198 1872*, 39). The reflection of a thought is not identical to that thought and cannot be taken as an unproblematic datum for empirical research. By proposing to put an end to 'metaphysicalist' readings of thought, psychology is blind to its own nature as a side effect of the older philosophical confrontation between materialism and idealism. For Peirce, the conviction of psychology that *qua* 'science' is free from all 'admixture' from ideas or abstractions is prey to a naïve common-sensism that in 'admitting the loose ideas of the untrained intellect' could not be further from science (*W1 P12 1863*, 101). Materialism, and more specifically the materialism of psychology which purports to be able to reduce consciousness to 'material' components and movements, 'is destitute of a philosophy'. It thus 'misunderstands its relation to idealism [and] the nature of its own logic'. On the other hand, however, 'idealism without materialism is void'; the world is not reducible to ideas-representations in consciousness either:

In one point of view indeed, pure *a priori* reasoning is a misnomer; it is a much as to say analysis with nothing to analyse? Analysis of what? I ask. Of those ideas which no man is without. Of common sense. But why *common* sense? Metaphysics stands in need of all the phases of thought of that uncommon sense which results from the physical sciences in order to comprehend perfectly the conceptions of the mind (*W1 P12 1863*, 101).

For Peirce, it will be vital that he steer away from this false dilemma of consciousness versus the thing it is supposed to represent. His response to the schism will touch many levels at once, including an inquiry into the character of science and its relation with philosophy in terms of an 'uncommon', experimental sense. This uncommon sense is none other than the experience of unreason at the heart of reasoning as part of a cosmic logic of signification.

As we will see in the chapters to follow, the appeal to the experience of the unconditioned within the human is the point where Peirce's responses to the crisis of

reason and the crisis of psychology coincide. Insofar as the infinite is continuous with the finite, the rift between thought and the thing, between the inner and the outer, that makes both critical and psychologist claims possible is exposed as a fallacy. For Peirce, if psychology is to survive at all, it can only do so as a logic of cosmic determination. As far as critical transcendentalism is concerned, continuity transforms it into an ‘uncritical’ kind. Of course, as we mentioned before, the relationship between pragmatism and criticism remains very subtle and should not be understood as an attack on Kant. As discussed earlier, Peirce never fails to recognise the importance of Kant’s most groundbreaking contributions (namely, the *quid facti/quid juris* distinction, the trisection of the faculties into feeling, desiring and knowing, and his transcendental logic) as well as the opening to the metaphysical territory of un-reason that will motivate post-critical modernity. As he puts it in a lecture, ‘the question is not whether the individual Kant be inconsistent but whether Transcendentalism his great bequest to the race be so or not’ (W1 MS101 1865, 243). His motivation behind engaging with the Kantian project is therefore not simply one of proposing an alternative to critical philosophy *tout court*. Peirce is aware that the question he poses about the sign is not Kant’s question. Moreover, it needs to be kept in mind that more often than not, it is a specific kind of Kantianism that he is most vocally contesting and, in particular, what he perceives to be as the distorted Kantianism of psychology – perhaps connected to the Kantian insistence on anthropology but nonetheless narrower in scope for having failed to see that the Transcendental Analytic is only a part of a much wider, all-encompassing architectonic.<sup>47</sup>

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<sup>47</sup> As he says:

the constructive part [of the Critic] has doubled in importance and needfulness. Here is to be found the most powerful argument against positivism which has ever been produced, – and, as many think, an irrefragable one. Accordingly, no man can hold the

From this standpoint, and despite Peirce's ambivalent relation to critical philosophy, we consider the Peircean project to be largely an attempt to rid Kantianism of its merely accidental and not essential psychological character. Our argument is that Peirce's aim is to uncover *in* Kant and cultivate a non-psychological and non-rational element in representation that will enable its substitution with signification as conducive to a different relationship with phenomena. But in order for him to spell out the new set of synthetic connections making this different relationship with phenomena possible, it becomes important to negotiate the relation of the faculties in a way that does not drive the inquiry of synthesis back to introspection. In other words, it becomes important for Peirce to stretch the Kantian framework to its consequences in order to think of the question of the possibility of synthesis, the exercise of the faculties, and representation in a way that takes into account the non-human in the human, the world in the subject, and experience in the concept. It is in this context that we argue semeiotics to arise. As we will see in the next chapter, Peirce starts with a method that is logical/pragmatic, a question that is genetic, and an orientation that is cosmological and co-articulated with a philosophy of nature as the unconscious in the conscious.

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position of a positivist with dignity who has not studied and digested and thoroughly mastered and carefully weighed this argument. Yet I should be at a loss to mention the positivist who has given evidence of having done this (W1 MS101 1865, 244).

## Chapter 2: The Uncritical Route to Synthesis

### 1. What Transcendentalism?

I have come to the conclusion that our primary conceptions are not simple but complex; that our elementary conceptions are not independent but linked complexedly together; that nevertheless properly speaking we have no *à priori* synthetical propositions and that axioms are only definitions.

C.S. Peirce, 'Private Thoughts' (W1 MS55 1860, 9)

In the previous chapter, we proposed that Peirce's response to the aporias and openings of the Kantian project is informed by his concern to restore the process of signification from the self-critical domain of anthropology to Nature. After having drawn preliminary contextual links with the tendencies evidenced in various post-critical philosophies, we argued that such a restoration is co-articulated with the demand for an unconscious genesis of reason as the vital thread running throughout Peirce's philosophy. Keeping this thread in mind, we are now in the position to begin a more detailed inquiry into his engagement with the basic metacritical questions. As is the case with many of the post-Kantians, for Peirce, too, a genetic account of reason can only begin by a systematic account of the conditions of real phenomenal experience. Insofar as experience refers to a noumenal world as something extrinsic and, in a way, 'realer' than itself for its consistency, we are in need of the intervention of schematism to mend the bifurcation between the determinist physiology of nature and the freedom of reason. By extension, the relation between the experiential and the logical is only accountable by a hierarchical ordering of the faculties that is prone to tracing transcendental structures from the acts of empirical consciousness. Already in his early writings, Peirce makes a case against this psychological tendency, which he

contrasts with a ‘thoroughly unpsychological’ view of metaphysics (*W1 MS94* 1865, 164). In Peirce’s view, experience needs to be more than an unproblematic ‘given’ to a presupposed subject and its relation to the other faculties needs to be recovered from the structure of subjection. This latter task is one of the defining features of his philosophy. As we will argue, Peirce is persistently after the possibility of extracting a properly pure or ideal genesis of mental forms (representation) in experience. As he writes, ‘experience [...] is the resultant *ideas* that have been *forced on us*’ rather than simply produced *by us* (*CP* 4.318, added emphasis). Experience is nature speaking in the human; it is un-reason felt by reason as the incessant adaptation of life to existing problems and the development of new ones through the formation of habits and beliefs. It is only after such a conception of experience finds its place in philosophy that a properly metaphysical account of semeiosis can be articulated.

In this chapter, we will follow through the Peircean re-conceptualisation of experience and the relation of the faculties as a response both to psychology and critical anthropology through a close reading of his early unpublished manuscripts. These essays – in particular, his 1861 and 1862 notes and his 1865 Harvard and Lowell Lectures – will form the first part of our focused reading of Peirce. Although Peirce scholarship has lamentably tended to overlook these texts, often dismissing them as ‘juvenilia’ (Fisch qtd. in Perez-Teran Mayorga 2007, 76), we argue that they are of vital importance for a number of reasons. First of all, although these works emerge from a period in Peirce’s work when his ties with Kant are still very palpable, they nonetheless manifest strong metaphysical tendencies foreshadowing that matrix of ideas that will eventually differentiate his own work from critical philosophy. The essays compact a lot of material and analyses, which, albeit inchoate, are a powerful exegetic tool for a better understanding of Peirce’s mature contribution to metaphysics

and logic. Furthermore, they include numerous references on the spirit of the era, especially with regard to the emerging discourse of psychology. But the primary reason we start from such an early period of Peirce's writings is the unique speculative framework offered by his [*Treatise on Metaphysics*] through which we hope to gain some insight not only into the development of experience and logic vis-à-vis the treatment of the faculties but into the very concept of the sign that qualifies this logic as semeiotic.

Understanding Peirce's engagement with the faculties is no simple matter. While there are clues on their relation and nature, these are strewn throughout masses of published and mostly unpublished material which, but for brief expository moments, mainly contain Peirce's own philosophical arguments. In his 1859 Schiller-influenced essay 'Analysis of Genius', and obviously drawing on the etymology of Kant's 'Vermögen' as put forth in the third *Critique* (CJ 167), he claims that '[a] FACULTY is an original power of doing a SPECIAL thing (W1 MS42 1859, 26; original emphasis and capitals). In a way that remains close to the Kantian formulation, the faculties *qua* powers will be grasped in terms of what they can do – that is, in terms of their respective functions. Although Peirce will later rename them into Primisense, Altersense, and Medisense, their proper objects will remain distinct and irreducible to one another: Primisense constructs impressions, Altersense relations, and Medisense concepts-habits (CP 5.241). To this extent, and contrary to the Hegelian formulation, where the faculties are subsumed under Reason, Peirce remains a Kantian. However, his discomfort with the critical distinction is expressed in the distribution of the faculties according to the relation between subject and object their respective representations presuppose.

We may recall that Kant had classified the faculties as feeling (pleasure and pain), knowledge, and desire precisely in terms of such a relation. In the faculty of feeling, the representation refers to the subject and the variation in its potential according to whether it corresponds to an increase of pleasure or pain; in the faculty of knowledge, the representation relates to the object with which it must agree; in the faculty of desire, the representation causes the reality of the desired object by inducing action for its satisfaction. Peirce's objection to such classification is explicitly exposed in his 1885 essay 'One Two Three: Fundamental Categories of Thought and Nature' (*W5 MS546* 1885, 242). The reference to Nature as well as Thought already gives us a hint of a clear metaphysical direction since the relations the faculties presuppose are not restricted to the human mind but are more importantly categories of reality. The reconstruction of the faculties to such a categorical status is first of all based on a direct challenge posed to the very psychological substratum of recognition buttressing the representation of subject-object relations. From the beginning, Peirce displays the ethos of the experimentalist. As he puts it later in 1888, the problem is to 'put the [the Kantian division] to the test by an independent examination of the facts of psychology, to see whether [one] can find any traces of the existence of three parts or faculties of the soul or modes of consciousness' (*W6* 1888, 183). As one might expect, the experiment yields quite different results. The faculty of feeling may indeed refer to the varying affections of the subject. Yet insofar as these affections are recognised, feelings of pleasure or pain are products of a reflective judgment and therefore they are not 'true'. For true feelings do not admit of characterisation as pleasurable or painful in the first place. As Peirce writes, 'mere passive feeling [...] does not act and does not judge, [...] has all sorts of qualities but does not itself recognize these qualities, because it does not analyse nor compare – this is an element of all consciousness to

which a distinct title ought to be given' (W1 MS546 1865, 245-246). On the other hand, desire involves anticipation; in other words, it involves the knowledge or the subjective expectation that its action or object will agree with its representation and furthermore that this object will be pleasurable. Such a compound should therefore be 'struck out of the definition of the third faculty' (*ibid.*). Purified of both subject and object, desire is merely a misnomer for sheer 'activity' and this is how it should survive as a faculty regardless of whether it is voluntary or not. Finally, concerning knowledge, the agreement between representation and object it presupposes is not specific to it but extends to every eruption of passion or exercise of the will however indirectly. Knowledge can therefore not be regarded as a fundamental faculty either: 'If [...] we ask whether there be not an element in cognition which is neither feeling, sense, nor activity, we do find something, the faculty of learning, acquisition, memory and inference, synthesis' (*ibid.*).

The replacement of knowledge for synthesis should not be seen as begging the question. The Kantian and Peircean syntheses do not share a common denominator and this is precisely because the parameter that for Peirce distinguishes their respective distribution of faculties is that of non-recognition. As we have suggested above, Peirce's experimentation begins with the disclosure of the non-human or unconscious at the root of the faculties of feeling, desire and knowledge. Whether a feeling, an activity or a synthesis is within or without 'we know only by secondary signs' and not by our original faculty of recognising fact' (*ibid.*). The faculties are therefore not to be distributed along an already established boundary between subject and object, inner and outer. Rather, Peirce's guide in their classification will be the inclusion of the unconscious as their metaphysical condition which sullies such distinctions.

It is worth noting that the articulation of synthesis in novel terms is manifest long before the 1885 essay on the meaning of the faculties qua psychological operations. In fact, almost every reference to the problem in the very early essays and notes from 1853 to 1861 indicates that Peirce has already made up his mind about the critical project. With this argument, we stand in opposition both to the commonplace reception of Peirce as a Kantian<sup>48</sup> and the (admittedly more informed) view within Peirce scholarship that Peirce remained a Kantian up to the composition of the ‘New List of the Categories’ in 1867 (see, for instance, Deledalle 2000, 57). Indeed, Peirce acknowledges the indebtedness to the critical thinker. As he characteristically puts it in 1898, ‘I came to the study of philosophy not for its teaching about God, Freedom, and Immortality, but intensely curious about Cosmology and Psychology. In the early sixties I was a passionate devotee of Kant, at least as regarded the Transcendental Analytic in the Critic of the Pure Reason. I believed more implicitly in the two tables of the Functions of Judgment and the Categories than if they had been brought down from Sinai’ (*CP* 4.2). Devotion notwithstanding, his relation to Kant remains complicated. There are other philosophical influences manifest in the young philosopher’s work such that whenever the question of the faculties and their division

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<sup>48</sup> Besides Habermas and Apel, whom we have mentioned previously, Richard Rorty has also famously expressed such a view. Peirce, the latter writes in his review of pragmatism, ‘remained the most Kantian of all thinkers – the most convinced that philosophy gave us an all-embracing ahistorical context in which other species of discourse could be assigned its proper place and rank’ (‘Pragmatism, Relativism, and Irrationalism’ 1982, 161). Given Rorty’s neo-pragmatist orientation such a view is as convenient as it is indefensible. While it might serve Rorty’s penchant for linguistic nominalism and relativism to classify Peirce as a naïve upholder of objective truth, the above comment merely showcases the magnitude of his misunderstanding of Peirce’s evolutionary philosophical system that, precisely in being evolutionary, puts forth a far more sophisticated thesis than that of absolute truth or absolute necessity. Suffice it to say that from a Peircean perspective, Rorty’s relativism of truth is not simply a blatant and deliberate misinterpretation of the pragmatic doctrine of semeiosis and of the nature of pragmata as signs, but also the infection of philosophy with ‘the seeds of death’ (*CP* 6.485). Susan Haack’s staged dialogue between Peirce and Rorty using their own words is a brilliant sample of what the encounter of the two thinkers would look like (‘We Pragmatists’: Peirce and Rorty in Conversation’ 1998, 31-47).

arises, he responds with classifications that are not based on human faculties at all but are unmistakably and unapologetically metaphysical. Among other instances, that this is so is especially evident in a table, composed in 1857, of what Peirce at the time calls the ‘I, Thou, and It’ impulses, persons or worlds influencing the soul:

Faculty Impulse	} The Soul	I	Reason	Goodness	Love of Order	Unity	Reality	Permanence
			Faith					
		THOU	Affection	Beauty	Love of Men	Totality	Limitation	Causality
			Love					
		IT	Sensation	Truth	Love of World	Plurality	Negation	Community
			Hope					

**Table 1:** ‘I, THOU, IT’ (W1 MS55 1857, 4)

The table is valuable if only because it gives us a glimpse into the main topics that remain a constant in Peirce’s philosophy. We can detect here the germ of Agapism and the canonical elucidation of the categories in the column of love with its three objects. As Jean-Claude Dumoncel astutely observes, ‘the love of order opens up onto a Platonic world of ideas, the love of men opens itself onto the world of encounters with faces, and the love of the world is the objective axis of landscapes riven in the torrent of time (Aristotelian element)’ (‘PEIRCE en 3 catégories’, personal communication, my translation, 7 July 2012).<sup>49</sup> Besides this early foreshadowing of Firstness,

<sup>49</sup> The original text in French reads:

On voit que cette table est construite officiellement sur les 3 transcendentaux de Kant (Bien, Beau & Vrai). Mais l’ironie de l’histoire veut que les deux transcendentaux censurés (l’Être et l’Un), normalement prioritaires, occupent intégralement la plus grande place dans la Table, à savoir les trois dernières colonnes, expressément pour l’Être (comme Réalité) aussi que pour l’Un (comme Unité). De surcroît, dans la colonne de l’Amour, les 3 Objets de l’Amour anticipent l’explication canonique des 3 Catégories : l’amour de l’Ordre ne s’adresse qu’au monde platonicien des Idées, l’amour des Humains ouvre évidemment l’axe des véritables Rencontres avec des

Secondness, and Thirdness ‘the transcendentals that Kant censures as metaphysical, namely the One and Being, end up occupying a much larger portion of the table (Being expressed as Reality; the One as Unity, Totality, Plurality) (*ibid.*). We see all these clues as precocious manifestations of Peirce’s mature thought and we will be returning to them in the following chapters. Yet we wish to make their importance for our discussion clear: the question of how Peirce transforms the faculties and, by extension, binds the Kantian problem of synthesis with a natural philosophy, is unfathomable without appreciating the metaphysical starting-point of his thought and the connections he establishes not simply with post-Kantian but also with pre-Kantian philosophy. Such a metaphysical starting-point need not be taken to indicate that Peirce reverts to dogmatism. As far as Peirce is concerned, the reconsideration of synthesis remains tied to a problem that finds its supreme expression with Kant – the distinction, namely, between inner and outer sense. Before expounding upon a philosophy of natural signification, Peirce will have to stop to re-examine auto-affection at the core of the transcendental subject, where the relation between representation and its other is at its most complicated. It is only after the Kantian distinctions are reconsidered that the question of an unconscious or non-anthropological genesis of the concept can begin to make full sense.

The first signs of this re-examination occur in the [*Treatise on Metaphysics*], which is composed in 1861. In this text, the possibility of posing the problem of synthesis is first of all tied to the demand that the *thing-in-itself* as the

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Visages, et l’amour du Monde conduit à l’axe objectif des *Paysages* pris dans le torrent du Temps (Dumoncel, personal communication, 7 July 2012 ; original emphasis). Dumoncel adds: ‘En effet, par opposition aux *jugements de valeur*, sur le Vrai, le Bien et le Beau, les jugements sur l’Être (ou l’Un) sont dits *jugements de réalité*. Ce qui présuppose l’équivalence Être-réalité’ (personal communication, 16 November 2013; original emphasis).

ground of the internal relations of the faculties be abandoned. Peirce puts matters quite explicitly:

The distinction upon which my system is based is between the potentially *thought* and the potentially *thought-of*. The common, and as I think, erroneous view of the relation of the Thing known to the Person knowing is as follows: - First, there is the Subject, the *Ego*. The thing known is known by an *affection of* the consciousness, consequently only by its effect. Therefore, a distinction is being drawn between (2) the *Noumenon* or thing as it exists which is entirely unknown (except, according to some philosophies, by reason), and (3) the Object or *thing as thought* (4) There is the affection of the consciousness or Phenomenon and (5) there is a relation of Causality between the Object and the Phenomenon.

The objections to this view are these.

- a. If the *noumenon* is thought of it is known. If it is not thought of, it has no relation to the consciousness. But it is represented as both totally unknown, yet the *ground* of knowledge.
- b. 'Thing as thought' contains mental elements, but the mind does not really affect the things that it knows. Hence the word *object* like noumenon is a mere logical form, incapable of comprehension.

I represent the relationship: - (1) There is the soul (2) There is the field of consciousness in which we know the soul (3) There is the thing *thought of* (4) There is the power it exerts on the soul (6) There is the *thought* or the idea as it appears in the consciousness (*W1 MS70* 1861-1862, 60-61).

Whence is Peirce's disagreement with the Kantian schema of determination? And what is the novelty of his own system of the process of affection? Unfortunately, we are dealing with an unfinished work full of conceptual leaps, which renders any answer a very difficult task.<sup>50</sup> Yet it is clear from this alternative conceptualisation of 'the relation of the Thing known to the Person knowing' that Peirce is gesturing to auto-affection as the most important moment in critical philosophy. As we will see, the basic challenge will be expressed in terms of the double meaning of the 'idea' and specifically how 'ideas or *impressions on the soul*' relate to thoughts 'as ideas appearing in the consciousness'. However, besides framing the novel distinction

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<sup>50</sup> Peirce's own comment about this manuscript is: 'Metaphysical. – I have had so much to say and so little time to put the words together, that I have been fearfully concise in some places' (*W1*, 538).

between the thought-of and the thought, the [*Treatise on Metaphysics*] offers little else to clarify what exactly his disagreement with the Kantian perspective is. Instead, the essay rapidly moves on to a radical and rather cryptic conclusion whereby the distinction between the thing-thought-of and the thought is transformed into a question about the nature of metaphysics:

Metaphysics is the philosophy of all that we immediately know? Its basis is obviously the distinction between what we immediately know – the thought, and what we *mediately* know – the thought-of – or that by which we know the thought-of of the of-thought.

The distinction upon which *All PHILOSOPHY* is based, lies between  
Images *à priori* and Images *à posteriori*

The distinction upon which *Psychology* is based, lies between  
Inner Images and Outer Images

The distinction upon which *Metaphysics* is based, lies between  
Images as Images and Images as Representations

These carefully drawn distinctions lying behind Peirce's system are subject to permutations:

Perhaps it will turn out that Images *à priori* are only Images *à posteriori* viewed [later becomes recalled] as Images, that those *à posteriori* are only those *à priori* excited as Representations, that to view an image as an image it must be indispensably have come from within and that such as do so come we cannot regard as representations but as immediate consciousness . . . Besides, pure metaphysics, studying images as images and not as representations, must recognise the facts of consciousness for in them it is founded but does not inquire into their *reality*, at all (*W1 MS70* 1861-1862, 62-63; original emphasis and capitals).

In turn, such permutations affect the relationship between metaphysics and psychology. Depending on which characterisation of the Image one begins with, one may assume that metaphysics is philosophy of which psychology is a branch; or that metaphysics is a branch of psychology; or that metaphysics is nothing else than psychology itself. But as we are told in the following paragraphs, the only way for one to do metaphysics and keep the faculties at the same time, is to draw 'conceptions from no system [of psychology] but from the thoughts as they present themselves in their *logical form* –

examining them logically – and finally [put] them in the right place in the mind’ (*ibid.* 63; emphasis added). Such a method supposedly renders metaphysics ‘the whole of reasoning’ and the logical examination of the truth of appearing thoughts thus becomes ‘the practice of Logic’ (*ibid.* 64; emphasis added).

What Peirce has told us so far is the following: first, the logical method is defined by what it selects, namely thoughts as they appear in their logical form rather than thoughts systematised in the mind; second, the distinctions between *a priori/a posteriori*, inner/outer, Image/Representation, immediacy/mediation are only perspectival and mutable; and finally, all this has a direct impact on metaphysics and its special relation with logic and psychology. However, at this stage it still remains a mystery how these arguments square up, how a synthesis or classification of psychology, metaphysics, and philosophy is to be achieved and what exactly the ‘logical form’ of thought is – given that a few lines earlier the Noumenon and the Object have been dismissed as ‘empty logical forms’. All we have is Peirce’s assertions and a set of seemingly unconnected dots and contradictions. While in 1861, he claims that the ‘triplicity of the conception [of metaphysics]’ stumbles upon the ‘impossibility of achieving the synthesis’ of these ‘three schools’ (*ibid.*, 65), three years later he argues that the ‘three definitions of Metaphysics [are] equally true [...] because [they] amount to the same thing’ and generate ‘3 methods of investigation, each one-sided; each needing the influence of the other two to keep it right’ (*W1 L82a*, 115). But it still not obvious at all how the above leads to a practice of Logic; neither is it clear what Logic is, what its relationship with the Image is, or what is meant by ‘practice’ in the first place. Indeed, in this work Peirce gives us too much and too little. In a sense, the source of confusion stems from the fact that we do not start with a clearly defined epistemological problem that would lead to or contest a metaphysical

view. As we saw from the previous ‘I, Thou, It’ table, metaphysics and epistemology seem to coexist from the beginning, bound together by a *logical method* which is hardly defined and which does very little in clarifying how the passage from epistemology to metaphysics – that will ultimately yield a metaphysics of semeiosis – is to be completed.

Despite the vertiginous pace of exposition, the *Treatise* is central in our attempt to reconstruct the genesis of semeiotic logic and deserves special attention. The constant repetition of the above concerns throughout Peirce’s early writings (from his Kant, Harvard, and Lowell Lectures up to the ‘New List of the Categories’ in 1987) certainly reveals that at this stage Peirce is struggling with the critical heritage. If this convoluted work is so important it is because here appears question that betrays his simultaneous appreciation of and scepticism toward the Kantian project. As he writes, ‘[we] need not ask the critical question; but still there is a question of uncritical transcendentalism with which every method of philosophy must open. It is, How should the conceptions which spring up freely in our minds by virtue of the constitution thereof be true for the outward world?’ (*W1 MS70* 1861-1862, 79). In our view, it is clear that what Peirce expresses here is a concern with the problem of the ground of the relation of knowledge to its object. The question is indeed strongly reminiscent of one that Kant asks in 1772 and which marks the breakthrough of the critical project: [if] intellectual representations depend on our inner activity, whence comes the agreement that they are supposed to have with objects? (Letter to Marcus Herz, 21 February; [1772] 2001 10:130). The nearly identical character of the two questions might make Peirce’s ‘uncritical’ orientation look rather unconvincing. Yet our argument is that their difference lies in Peirce’s distinctive take on representation, which as we saw is not founded on the subject but upon unsystematised thoughts or, as

he puts it a few lines later, ‘upon the very nature of things’ (*W1 MS70* 1861-1862, 80). That representation is founded on the nature of things has an immediate effect on Peirce’s understanding of the nature of the concept. Indeed, we will see in the second part of this thesis that Peirce will go as far as to claim that concepts are not simply *of* things but that they *are* things. We have yet to cover some distance before we reach this stage in our philosopher’s thought where we can unpack what ‘uncriticism’ is and how it resonates with subsequent formulations. Nonetheless, this much is clear: transcendentalism can be uncritical only if the ground of synthesis is not the subject, only if the subject is subsumed under a process of representation which must be reconceived beyond mere agreement.

We will have the chance when we reach the definition of the sign in terms of an uncritical genesis of reason to see that the reconfiguration of representation beyond agreement inevitably transforms the question of ends – to the extent that it will no longer be called ‘representation’ but ‘interpretation’. Doing away with the model of agreement between the thought and the thing necessitates that we refrain from the subjection of nature to the nature of reasonable beings. Instead, the nature of reasonable beings needs to be seen as part of nature. Interestingly, such an inversion will not rehearse the fallacies of the empiricist position. With Peirce, we will no longer be able to say either that nature determines the form of the intellect or that the intellect simply imparts nature with form; neither will we be able to say that two agree by virtue of pre-established harmony between sense and understanding. This is because his concept of Nature has already moved beyond the level of crude deterministic materiality. Peirce will claim that nature is already ‘reasonable’ (*CP* 2.34) but this will be the same thing as to claim that nature is living. How is reason continuous with and yet different from nature? How can we claim that reason finds the principles of its

genesis in nature and yet maintains its own ends? It is the implicit linearity that has hitherto informed the concept of end that Peirce will contest. As we will argue in the following section, for Peirce, to be continuous with does not mean to be the same as something. The point will be to move to a metaphysical level where it is possible to trace the genesis of reason in a reasonable or inherently final nature and yet demand a divergent and simultaneous evolution of reason and nature, of thought and thing, subject and object. In other words, we need to be able to account for the co-adaptation or double genesis of nature and reason according to the principles of what Spinoza would call a *Natura naturans* or what we might call a *Natura signatrix*. As we shall see, it is from this point of view that Peirce will qualify the same un-conscious evolutionary movement as properly hyperbolic. Only when the genesis of reason is addressed in these terms may synthesis be fully comprehended as ‘un-critical’.

Having laid out the general coordinates through which Peirce’s objection to the ‘critical’ character of synthesis will have to pass for it to lead to an un-critical transcendentalism, we may now return to the more nuanced layers of his inquiry into the Kantian problem. On a first level Peirce’s reconfiguration of the subject-object relation is obviously directed against Kant’s understanding of the noumenon. We may recall here that for the latter the noumenon is an Idea of Reason functioning as the suprasensible substratum behind phenomena and has two senses: on the one hand, the noumenon serves as a thing in itself, understood as the ontological substratum unreachable by knowledge; but on the other, it serves as a ‘problematic concept’ (*CPR* A254/B310) whose purpose it to ‘cohere with other cognitions as a boundary of given concepts’ and deter sensible intuition from illegitimately extending itself over things in themselves (*CPR* A254/B310). ‘The concept of a noumenon’, writes Kant, ‘as taken merely problematically, remains . . . not only permissible, but as a concept putting

sensibility within limits, also unavoidable' (*CPR* A256/B312). The paradoxical character of the noumenon is therefore revealed in the fact that it limits our cognition and 'yet [it] leaves open a place for [objects that cannot be given]' and hence for the possibility of a realist philosophy. It is that 'empty space', which limits empirical principles, but does not claim to grant access to objects other than the phenomena, which alone are what these principles allow us to grasp (*CPR* A260/B315).<sup>51</sup>

Peirce is aware that the noumenon serves such a double function. His description of it as 'totally unknown, yet the *ground* of knowledge' displays an obvious appreciation of its epistemic and ontological duality. When he claims that the noumenon has no comprehension or content, this means that the noumenon has merely extension or the broadest sphere possible by including all other spheres or objects under it but nothing in it and it is indeed from such a viewpoint that it may be considered as empty.<sup>52</sup> To comprehend his objection to such emptiness, which is only briefly stated at this stage, we need to mine his logical writings for clues. An empty term, for Peirce, is impossible. Strictly speaking, a term that is completely *empty* is supposedly also utterly *simple*. Yet if there is such a simple term, there can never be just one. Implying the distinction between simple/empty terms and complex/non-empty ones, simple terms must be many in order to account for all those terms that are composite. In turn, if there are more than one simple terms (for how else would a

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<sup>51</sup> 'The problematic thought which yet leaves open a place for [the objects that cannot be given] serves only, like an empty space, to limit the empirical principles, but without containing or displaying any other object of cognition outside the sphere of these principles' (*CPR* A260/B315).

<sup>52</sup> To illustrate this, we might we may use the example of the word 'plant'. The extension of 'plant' is every single plant we know – it is whatever plant may denote. On the other hand, the content or comprehension of the term is whatever that term may mean or *connote*: what we know of all plants as cellulose-based, photosynthetic multicellular organisms, reproducing sexually or asexually, etc. Denotation or extension is what is contained *under* a term; connotation or comprehension is what is contained *in* it.

complex term be possible), they are logically in relation to one another. For instance, if A and B be taken as two simple terms, then we may have such permutations as ‘A includes not-B’, in which case A is composite in the first place. Whatever has extension even if this is the widest extension possible (like the noumenon) is therefore always composite and can never be empty or vacuous – its very comprehension stems from the fact that it is a *relatum* in a structure. Denying the comprehension of a term is typical of confining oneself within a question of right, which focuses on what a term would be if we had no knowledge of fact at all and ignores this very knowledge of fact or what we *do* know in experience. And, for Peirce, what we *do* know in experience is the compositeness and relatedness of things and of ourselves as related to them. To presuppose *a* thing in itself as pure, empty, and unrelated, is to analyse ‘with an axe’ (CP 7.570). This is an aspect of the critical project that Peirce will never cease to contest as, in his view, it involves a misunderstanding of relation and continuity, which jeopardises the synthetic operation Kant is trying to establish in the first place.

We will have the chance to address the above problem in the following section. For the moment we need to say that inasmuch as he contests the emptiness of the noumenon, Peirce nonetheless remains ambivalent about its value. At the centre of this ambivalence is not only the employment of the noumenon as an epistemic *limit* inscribing a discontinuity between knowledge and thought but also Kant’s own ambiguity about its role in the complex mechanism of synthesis. Inquiring a little further into this mechanism will help us gain clarity on arguments we will undertake later. As we saw in the previous chapter, for Kant the problem of synthesis is articulated as the agreement of the given with the subject: the given, which *qua* phenomenal is precisely not a thing-in-itself, can only have sense for us by being subjected to *our* nature as reasonable beings. Consequently, a transcendental synthesis

is required to provide an *a priori* rule of representations. In a way, the core of such synthesis is imagination which is not itself a legislative faculty in knowledge but rather the mediating activity that relates phenomena to the understanding. The process is described in the following terms: imagination apprehends a manifold by producing particular formal determinations of space and time, which it *reproduces*. These spatial and temporal structures in turn need to be brought to unity through the intervention of the understanding which, on its part, provides not only the pure categories but also the elusive ‘undetermined yet determinable’ form of the any possible object (‘object=x’). As we have seen, the object=x is of vital importance since the categories are its predicates; without it no union between concepts and intuitions is possible in a judgment. In order for the imagined (apprehended and synthesised) manifold to be subjected to recognition, the second activity of imagination must intervene, which is no longer characterised as synthesis but as schematisation, somehow sitting on the fence between sensibility and understanding. A *schema* is created, a temporal and spatial determination, which shapes or realises conceptual relations by corresponding to the categories of the understanding ‘everywhere and at all times’ and not just for particular apprehensions of the manifold.

Yet as we have mentioned in our discussion of Kant vis-à-vis post-critical thought, we are already facing several problems connected to the formation of concepts and their application to the sensible. The concept is a formal rule that enables us to reproduce and eventually recognise unity in an indefinite series of sensible ‘samples’. However, it remains unclear how or at what stage the decision is made that a certain set of sensible instances conform to the rule. As Kerslake explains, ‘[the] rule demands: if you see a, b and c together, you must apply the concept X. A concept in this case is really an indefinite series of marks, which at any point must be distinguishable from all

other series (Kerslake 2009, 187). But if the unity of the given is really grounded in the *unifying* act of recognition rather than in a pre-unified concept, then, strictly speaking, ‘conceptual rules are in perpetual flux’ (*ibid.*). In addition to the potential indeterminacy of the concept, we also face the problem of applying the general but shaky conceptual unity to particular empirical intuitions. The transcendental schema may be supposed to intervene between categories themselves and the possibility of experience in general. It may be considered to be the third thing that makes the otherwise ‘empty’ categories to be relevant for the real. As a determination, then, synthesis is supposed to make distinct a concept which is connected with the making distinct of a something in general. However, given the non-representational spatiotemporal components of the object= $x$  and the representational nature of the logical subject, it remains unclear what there is in the object= $x$  that can actually ground the relation between subject and predicate. If the *object in general* has intuitive components then these components should logically be part of the concept. But if this so, either intuition acquires a representational status or representation becomes intuitive. We are thus confronted with a major ambiguity in the Kantian understanding of these two faculties (*CPR* A320/B377).

The problem of connecting two faculties different in nature is intensified with the ‘great variety’ of spatiotemporally structured phenomenal ‘content’ posing a challenge on top of the tentative conditions of unity. Kant himself admits that sometimes ‘even the most acute human understanding, through comparison of one with another, could not detect the least similarity’ (*CPR* A654/B682). Faced with the fragile unity of the understanding which is only distributive in character and the uncertain representational status of the intuition, Kant resorts to the Ideas of reason, which *qua* boundary or ‘problematic’ concept (*CPR* B310) are meant to provide concepts with a

much needed collective unity. In short, Ideas are meant to provide a solution to the problem of the content of knowledge, which the understanding addresses only inadequately. As Kant will suggest in the third *Critique*, Ideas expand experiential cognition by projecting the concept beyond itself into a suprasensible totality as its ‘imaginary’ focus (*CJ* 232). It is only by pointing to such an indiscernible ‘horizon’, which makes Reason superior to the Understanding, that concepts find a transcendental content or object and hence their unity (*CPR* A658/B686).

Kant’s solution to the problem of the unity of the concept allows us to pave our way back to Peirce’s objection against the noumenon. Peirce insists that the Kantian appeal to a transcendental content is not sufficient to expand the formality of general concepts onto the real. Indeed, as we have seen, the objection that recurs in the [*Treatise on Metaphysics*] is that ‘Criticism’ is ultimately unable to escape the reference to mere logical and empty forms. We are in a better position now to understand why Peirce objects to such emptiness. By referring the truth of the phenomenon to pure categories and the *object in general*, critical philosophy may well be said to deduce the *form* of our representations; but insofar as the categories find their unity in *noumena* as transcendental objects the content or matter of our representations is still not properly accounted for. For on the one hand, we presuppose the source of conceptual consistency outside the concept but, on the other, to posit any such direct causal connection between things in themselves and the concept is a metaphysical aberration of reason in the first place. In other words, we know that the connection between being and thought, matter and form, outer and inner, for Kant becomes a thoroughly interior affair, which is what the particular conception of time as

the pure form of auto-affection encapsulates.<sup>53</sup> It is thus obvious for Peirce that we have done little to step out of formalism and into the real: we have posited that we are affected by objects while maintaining the form of objectivity is supplied internally. In short, we have merely presupposed something external but only allowed the process of determination to be a merely formal affair. If no ‘mental elements’ are contained in things in themselves *qua* unknown and empty the latter cannot be said to have a ‘relation’ to consciousness without contradiction. The problem of relationality resurfaces: How can something incognisable or simple affect us or be affected by us? How can the incognisable be the objective ground of knowledge?

This is the context in which Peirce’s criticism that noumena are ‘mere logical forms’ lacking in comprehension is to be understood (*W1 MS70* 1861-1862, 61). The usage of ‘mere’ should be considered apart from its usual derogatory sense. Peirce is perfectly happy to acknowledge that Kant’s genius lies in his insight that ‘the commonest and most indispensable conceptions are nothing but objectifications of logical forms’ (*W1 MS115* 1866, 351). In this sense, he recognises that the notion of the *object in general* and the search for an objective ground are indispensable for critical philosophy – especially if one is to escape the triviality of formal logic which remains ‘too indeterminate and too simple’ to be of use in actual reasoning with its ‘involutions and resolutions of forms’ (*ibid.*). Yet, again, to the extent that Kant’s project turns on the question of right, on what we *can* know, it relies on introspection and is sensitive to its psychological pitfalls – namely, the misunderstanding of

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<sup>53</sup> We would be unfair to the complexity of the critical project if we were to disregard that the difference between being and thought, or matter and form, is interiorised through Kant’s particular understanding of time as the form of auto-affection. Indeed, this is precisely the moment of the ‘discovery of the transcendental [as] the element of the Copernican Revolution’ resulting in the splitting of the subject into two unequal halves: the empirico-transcendental double (Deleuze [1968] 1994, 86).

experienced relationality. Derived from such principles, categories can hold only for thought objects or *objects in general* and they might be valid as the necessary formal conditions of the form of *possible* experience. But as Peirce puts it five years after the *Treatise*, Kant's deduction 'does not display that direct reference to the unity of consistency which alone gives validity to the categories (*ibid.*). Such unity can only be provided by real experience, which is what discloses nature as continuous with the categories of knowledge. It is Peirce's take on such continuity, which is the very prerequisite for a different concept of synthesis and a non-anthropological philosophy of the sign, that is the topic of the following section.

## 2. Germinal Continuity, or the Thing at the Limit

Kant gives the erroneous view that ideas are presented separated and then thought together by the mind. This is his doctrine that a mental synthesis precedes every analysis. What really happens is that something is presented which in itself has no parts, but which nevertheless is analysed by the mind, that is to say, its having parts consists in this, that the mind afterward recognises those parts in it. Those partial ideas are really not in the first idea, in itself, though they are separated out from it. It is a case of destructive distillation. When, having thus separated them, we think over them, we are carried in spite of ourselves from one thought to another, and therein lies the first real synthesis. An earlier synthesis than that is a fiction. The whole conception of time belongs to genuine synthesis and is not to be considered under this head.

C.S. Peirce (*CP 1.384*)

We have argued that the Kantian account of cognition depends on the separation between the form and the matter of thought, which leads the critical philosopher to look for the consistency of possible experience in a noumenal separated from the phenomenal and restricts his project into a question of application of the

concept to the real. For Peirce, the adherence to such a divisive structure, itself symptomatic of the anthropological perspective of right, does little to shed light on the problem of synthesis. First of all, the problem is not simply the logical extension of concepts to experienced objects or the application of pure concepts to empirical intuition. The discontinuity between terms implied in the Kantian logic of application leads Peirce to a more radical conclusion. It is not simply that we have not found out how the pure applies to the empirical; more importantly, we have not found out by what right pure *a priori* concepts apply to the equally *pure* forms of intuition in the first place. As we will argue, for Peirce there is as much a problem with Kant's conceptualisation of *a priori* categories as there is with the *a priori* forms of time and space. Unless these forms are reconsidered, synthesis can never be regarded as uncritical and the passage to a *Natura signatrix* cannot be completed.

Peirce's experimentation with the abovementioned difficulties begins with a different notion of the relation between the faculties of intuition and understanding that implies a continuous passage from the intuited to the intelligible. From this standpoint, the synthesis of intuition and understanding does not necessitate a 'third something', a *schema* external to the terms it is supposed to connect. Instead, the synthesis between the matter and the form of cognition is the passage or process internal to thought itself by which 'sense can become consciousness' (W1 MS66 1861, 47). The radical character of this proposal lies in the fact that although Peirce suggests that intuitions and concepts have to be derived genetically from a common source, they are not of the same nature. Foreshadowing the irreducibility of the Categories and the evolutionist outlook of Peirce's project, one of the signature problems of most of this early period will be to find how concepts differentiate themselves from intuitions – in

other words, how the continuity between reason and experience nevertheless allows for the development into faculties that are distinct in nature.

The problem is outlined in his 1868 published essay 'Questions Concerning Certain Faculties Claimed for Man' and has to do with the particular logical problem of 'the first cognition'. The crux of the matter is the following. In the Kantian system, the understanding is given something outside it twice: it is given by the receptive faculty of sensibility both an experiential manifold *and* the pure components of intuition. Besides making synthesis difficult, since the understanding is called to legislate over something that is not *within* its productive powers in the first place, the indeterminate status of the faculty of sensibility as both empirical and pure further complicates the process of unification. For Peirce, even if we accept that the material diversity of phenomena is coextensive with the pure forms of time and space, insofar as a sensation is considered as-of-yet undetermined or unmediated by the concept, it is put forth as some sort of immediate or first kind of cognition which, as he explains, is supposed to be a 'premiss not itself a conclusion' (W1 MS131 1866, 489). The givenness of sensation therefore logically implies that at some point in the process of cognition there is a leap twice: a first leap from the material outside or things in themselves to sensation through causal affection, and then a second double leap from empirical and pure sensation to the concept where the intuited-immediate given becomes a conceptual-mediated 'taken' (Rosenthal 1967, 77).

The 'immediacy' of sensation is taken by Peirce to expose a major flaw in the Kantian system, which is the critical philosopher's taste for a discretising mode of thought. The problem, expressed on multiple layers, is one of movement. First of all, if we assume sensation to be given to consciousness as unconnected to any previous recognition, we cannot avoid the implication that its origin is outside consciousness

and that it is moreover a ‘first’ immediate cognition. In other words, unmediated sensation begs the question of the ‘outside’. We know, however, that this runs contrary to what sustains the Kantian system as a whole, which is the very idea that no definitive claim can be legitimately made about any external causal effect upon us except for the fact that the cognition of the world is a thoroughly internal affair secured by the various *a priori* syntheses and the schematism of time. For Peirce, the problem is irremediable. In implying the existence of something incognisable affecting sensibility, one is already operating in terms of a logic of discrete quanta/images succeeding one another discreetly in the mind (*W2 P33 1897, 69*). This in turn implies that since an idea is present only in the ‘passing moment’ it is *absolutely* distinguishable from any other. Such is the implicit premise that enables Kant to posit that an *a priori* synthesis must *precede* every analysis: something is presented – a non-unified discrete manifold of distinct things or parts that are the effect of things in themselves on us; in order for them to be unified the human mind must be in the position to draw on a transcendental synthetic structure already in place. It is from this perspective of discreteness of instants brought together into a homogeneous and enduring whole that Kant is able to put forth the activity of the transcendental subject as *constructive* in character: nature becomes nature because of us.

In Peirce’s view, it is dubious whether this constructive transcendental act is not, in fact, a ‘destructive distillation’ (*CP 1.384*) of what actually happens in *real* experience. First of all, it betrays how little the great critical philosopher comprehends the notion of continuity expressed in the relation of the whole to the parts.<sup>54</sup> But an

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<sup>54</sup> Indeed, from 1884 until 1900 Peirce rejects Kant’s definition of continuity, but after 1900 Peirce holds that infinite divisibility should not be considered as the main definition of continuity given by Kant. In a letter to the Editor of Science, written on March 16, 1900, Peirce states that: ‘Although Kant confuses continuity with infinite divisibility, yet it is noticeable that

*absolute* individual, separate and unrelated to anything else, can exist neither in reality nor in thought.<sup>55</sup> Even if we claim a cognition to be instantaneous, any event lasting for any time, however short, is capable of alteration as in that time it undergoes changes in its *relations*: ‘[at] no one instant in my state of mind is there cognition or representation but in the *relation* of my states of mind as different instants there is’ (*CP* 5.289; added emphasis). Every reasoning mind must have ideas that not simply follow after others but are caused by them – ideas must be *relatively* determined. Were they to unfold by discrete steps, their association or dissociation would be impossible; we would find ourselves repeating the Zenonian paradox of infinite divisibility whereby the movement from one idea to the other would be impossible. We would, in other words, presuppose the existence of an infinitely remote and hence barely vivid first cognition, which we would nonetheless be completely unable to reach. Peirce will therefore claim that it is mistaken to suppose that an idea is ever absolutely individual in the sense that is absolutely determinate or non-related to any other idea. The potential for further determinations remains as the conception enters into novel relations and as such the flow of cognition can only be continuous (*CP* 3.93 Fn P1).

Peirce’s concept of continuity, which he keeps reworking well into his mature phase, is a crucial component of his approach to the Kantian problem of cognition and deserves special attention even if its full formulation chronologically comes after the essays we are currently investigating. In a way, it can be argued that Peirce exploits an opening in the critical project, which, as we saw in the previous

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he always defines a continuum as that of which every part [...] has itself parts. This is a very different thing from infinite divisibility, since it implies that the continuum is not composed of points’ (*CP* 3.569). For an excellent account of Peirce’s development of the notion of continuity see Moore (2007).

<sup>55</sup> ‘A logical atom, then, like a point in space, would involve for its determination an endless process’ (*CP* 3.93).

section, pertains to the indeterminacy of the concept as both transcendently homogeneous *and* potentially susceptible to change as it is constantly refashioned *with* the ‘indefinite series of marks’ it unifies. Yet Peirce will argue that such indeterminacy pervades the whole of cognition. Let us return to the problem we mentioned above: if cognition is not made up of the aggregation of discrete steps, what precisely does its continuity consist in? This problem is important for the progress of our argument, for as we will see in the section to follow, it contains in it all the aspects that will enable Peirce to define the sign ‘synechistically’ – or after a doctrine of metaphysical continuity (*CP* 7.565-578). Of course, we must make clear that we cannot hope to do justice to Peirce’s extensive explorations into the algebraic and topological notions, which inform his notion of continuity. As it has been shown in recent scholarship, Peirce’s entire *opus* is strewn with numerous and complex negotiations that reveal a remarkably rich and multifaceted take on the problem (see Havenel 2008; Moore, 2007; Parker, 1998).<sup>56</sup> Nonetheless, it is vital that we offer a review, however minimal, of the Peircean take on the continuity of cognition.

## 2.a. Peirce’s Explorations of Continuity

The first definition we encounter comes in 1869 and is the following: ‘A *continuum* is precisely that, every part of which has parts, in the same sense’ (*W2 P41* 1869, 256; original emphasis). Meant to distinguish continuity from infinite divisibility,

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<sup>56</sup> Indeed, if we were to fully stray into that territory, we would need to draw attention to another yet crisis, besides those of reason and psychology, namely the crisis of formalism. To our knowledge, there has not been extensive work on this aspect. Some works which have touched upon the connection between Peirce’s thought and the subsequent program of formalism initiated by Hilbert are Brady (2000), Brunning and Paul Forster (1997).

such a definition already sets us on the path of a topological rather than a metrical notion of continuity. Indeed, Peirce objects that a metrical understanding, which lies at the basis of Zeno's paradox of infinite division, cannot cover the complexity of continuous relations. To be sure, Peirce acknowledges that a metrical point-continuum definition is possible. There is textual evidence that by the late 1800s Peirce is fully conversant with the Cantorian definition, which posits the continuum as a system of points that is 'perfect' and 'connected'. In the *Century Dictionary*, for example, he does engage with the said definition according to which in such a system of points (like the set of rational numbers) it is possible for any two given points and any finite distance between them to find a finite number of points through an infinite series of successive steps smaller than the initial given distance (*CD* 164).

With regard to our question of the continuity of cognition, it is easy to see that if we were to tackle it in terms of the mathematics of infinite series, there should not be any difficulty in assuming the existence of an original or 'first' cognition in an infinite series of cognitions. This is because the infinite and the finite here appear to be already reconciled: if an infinite series can nonetheless have a finite sum, Zeno's problem is solved before it is posed. But does this mathematical-logical solution nonetheless solve the paradox of motion? Can we ever arrive at such an origin through introspection? Can we actually move to a first cognition and affirm it as a first? For Peirce, this is the point where the mathematical conception of continuity fails. The metrical solution proposed by transfinite cardinals does little to address not only the *philosophical* but also the *physical* problem behind the paradox, which is the possibility of movement itself from a present to a previous and finally ultimate cognition. Having reduced movement to an issue of measurement, the mathematics of bounded infinite series still accepts the Zenonian conception of continuity as infinite

divisibility. The logic of transfinite series can therefore not account for a properly philosophical concept of continuity. As Peirce's precocious definition states, continuity involves relation. This means that 'it is impossible to sever a continuum by separating the connections of the points, for the points only exist in virtue of those connections' (*NEM* 3.95). Furthermore, nowhere is this relational reality of continuity more evident than in the mind where ideas follow a movement of continuous melding into each other.<sup>57</sup> As Peirce puts it, '[the] point here insisted on is not this or that logical solution of the difficulty, but merely that cognition arises by a *process of beginning*, as any other change comes to pass' (*CP* 5.263; added emphasis).

We need to be alert to the subtlety of Peirce's thought at this point. When we say that the continuum cannot be severed into points, we are not postulating that entities are swallowed up in a stream of continuous becomings thus never reaching concretion. This latter view is rather the necessary outcome of a metrical or extensive view of continuity according to which no becoming can ever be taken as concrete as it is overcome by an endless series of division upon division.<sup>58</sup> On the contrary, Peirce's process-oriented continuity puts forth a concept of becoming as intensive and primary – though not chronologically prior – to the concrete beings that become. The real problem is to see how in this 'process of beginning' ideas or things influence each other by surrendering and attaining their singularity. If this question be answered, then we may also be in the position to account for the process whereby unconscious ideation

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<sup>57</sup> Peirce insists on the point:

Logical analysis applied to mental phenomena shows that there is but one law of mind, namely, that ideas tend to spread continuously and to affect certain others which stand to them in a peculiar relation of affectibility. In this spreading they lose intensity, and especially the power of affecting others, but gain generality and become welded with other ideas (*CP* 6.104).

<sup>58</sup> This is the real paradox of Zeno's paradox: he supposes two imaginary points and a finite distance between them without however ever allowing the points and the line themselves to ever *be* there for the division to begin.

becomes concept – the process, in other words, whereby reason may be considered as a concrete instance of nature and yet different from it.<sup>59</sup>

The complex negotiations required to articulate a metaphysics of relational continuity are clearly put forth in relation to the process of cognition in the essay on the ‘Law of Mind’ in 1892 (W8 1892, 130-157). There the continuous relation between a past and a future idea is compared to the boundary between the red and blue parts of a surface that is ‘half red and half blue’. For Peirce, it is impossible to hold that the boundary is a strip that is either red or blue but not both. The boundary, properly speaking, is neither a point nor a line but a limit conceived as an infinitesimal quantity that is as small as one may choose. The importance of such a concept of the limit for understanding Peirce’s continuity cannot be overstated. First of all, we need to take into account that in Peirce’s time the limit is considered to be external to the sequence it limits. Such externalism, to which analytically-minded mathematicians such as Weierstrass, Dedekind, and Cantor ascribe to, is precisely employed in order to avoid the supposed logical absurdity involved in the classical notion of the limit as an infinitesimal quantity that is *there* yet never reached (CP 4.112).<sup>60</sup> The complex

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<sup>59</sup> Such is the caveat of Peircean philosophy, which at this point seems to us to be in remarkable proximity not only to Henri Bergson’s famous objection that Zeno’s paradox involves an unwarranted confusion of time or movement with space ([1898] 2001, 110-115; [1907] 1998, 307-314) but also to Alfred North Whitehead’s demand that the question of the ‘continuity of becoming’ be disengaged from the ‘becoming of continuity’ to which measurement restricts us. The problem, according to the latter, is not to start from *something* (a clearly defined point) that already *is* and then deduce, *à la* Zeno, the becoming of a continuity now reduced to divisibility but to think of a proper continuity of becoming in terms of which an actual occasion is subject to a continuous succession of epochal durations and yet is undoubtedly singular or ‘atomic’ (atomism here implying no further dissection and hence rising up to its true etymological meaning) ([197-28] 1978, 35; [1925] 1967, 135-136).

<sup>60</sup> Peirce’s response to the problem favours the metaphysician rather than the mathematician. As he writes:

In many mathematical treatises the limit is defined as a point that can ‘never’ be reached. This is a violation not merely of formal rhetoric but of formal grammar. True, in the world of real experience, ‘never’ has at least an approximate meaning. But in [...] mathematics is [...] ‘never’ can only mean ‘not consistently with –’. To say that a point

argument against infinitesimals is a familiar one in the history of mathematics: infinitesimal differentials were indeed convenient in determining the slope of a tangent to a curve at a single point or the instantaneous velocity of a body in motion (see Boyer 1959). However, while the differentials themselves could not be perceived, the result of the abstract difference quotient  $dx/dy$  was a definite value and hence could. This peculiar quality of the calculus had prompted such great thinkers as Leibniz and Newton to interpret differential quantities as ‘ultimate differences’, ‘quantities smaller than any given quantity’, ‘qualitative zeros’, ‘differences on the point of vanishing’, or ‘momentary increments or decrements of a flowing quantity’ or ‘evanescent quantities [that retain] the character of that which is disappearing’ (*ibid.*, 12-3; 212; 216; 219). To avoid such metaphysical implications, mathematicians attempted to give the differential calculus a logical foundation. This was achieved through the concept of the derivative, which, although based on the idea of the limit, claimed to divest the latter of any intuited components. As Carl Boyer explains, instead of making metaphysical suppositions about the ‘end’ of an infinite sequence or expressing the possibility that a moving body actually reaches a limit, the derivative  $f'(t) = dx/dy$  of the distance function  $f(t) = \Delta x/\Delta y$  posited this limit as nothing else but another independent variable in a sequence of variables (*ibid.*, 11-13). The derivative therefore became the basis of the externalist interpretation of the limit, which accompanied the

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can never be reached is to say that it cannot be reached consistently with –, and has no meaning until the blank is filled up. And thereupon, the mathematical and balanced conception must be that the point is instantly passed through. The metaphysicians have in this instance been clearer than the mathematicians – and that upon a point of mathematics; for they have always declared that a limit was inconceivable without a region beyond it (*CP* 4.118).

We see, then, that the limit implies the relative determination of at least two terms, which renders the unreachability of a limit as a point in a continuum indefensible.

disengagement of the calculus from the metaphysics of intensive magnitude and its restriction to the mathematics of extensive quantity.

In reintroducing the infinitesimal concept of the limit at a time when the derivative is more or less well established, Peirce inevitably reinserts the importance of metaphysics into the problem of continuity. His usage of the infinitesimal as a quantity as small as one may choose turns upon the deliberate blurring of quantity and quality. As we will see, the infinitesimal is primarily a felt quality and secondarily a recognised quantity. This need not be taken as an aberration or an intrusion of philosophy into the realm of mathematics. For one thing, the transfinitists had been rather vocal about the metaphysics implied in their conception of infinity and the continuum;<sup>61</sup> for another, internally to mathematics, the metrical solution to continuity had begun to be contested by developments in topology; and lastly, the concept had a history that was too convoluted to claim a distinctly mathematical or metaphysical origin. In any case, the problem that exercises Peirce is that the passage from the non-intuited to the intuited cannot be explained away by making intuition secondary to (an unexamined, as it will turn out, vision of) logic. By trying to do away with the intuitive components and avoid the question of natural variability or continuous quantity mathematicians had undoubtedly progressed in their own field. As a mathematician, Peirce always

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<sup>61</sup> Setting aside the presence of set theory and the mathematics of infinite series in the work of various philosophers in recent times, let us remember that Cantor himself is aware of and, indeed, vocal about the metaphysical assumptions of his work, especially as regards the old philosophical problem of the manifestation of infinity in the phenomenal world (for an informative summary of the philosophy of potential and actual infinity ever since Aristotle see Boyer, 1959). This is evidenced in distinction between *reellen Zahlen* (real numbers) as a formal class of numbers in mathematics and *realen Zahlen* (real numbers) as entities having an actual objective existence supporting his admission of the existence of actual infinity as complete, extended, definite, and physically existing (Cantor [1883] 1976; the distinction, lost in the English translation, is noted by Ernst Cassirer (Cassirer [1922] 1950, 63-4; 73-4)). As Joseph Warren Dauben notes, by virtue of the metaphysical hue of the distinction, Cantor will also suggest applications of the theory of transfinite numbers to other scientific fields, as well, particularly with regard to the nature of matter and ether (Dauben 1979, 125).

appreciated the fact that where is mathematics there is also number and discretisation.<sup>62</sup> Yet as a metaphysician he saw the separation of the calculus from experience as a symptom of the bifurcation of reason and nature. His philosophical response on the matter reveals a plethora of influences. From an Aristotelian perspective, Peirce will posit a framework of contact according to which adjacent parts have their limits in common (*CP* 6.166; 6.174-6.180).<sup>63</sup> He will furthermore argue that the notion that ‘all the instants before one instant, [are] *exclusive*, is in the continuous series a self-contradictory description’ (*NEM* 3.125-6; original emphasis). A look at the physical phenomenon of movement suffices to prove the point: ‘the velocity of a particle at any instant of time is its mean velocity during an infinitesimal instant in which that time is *contained*’, writes Peirce (*NEM* 3.126; added emphasis). Not only then is the limit *internal* to the series but it is also really and irrevocably ‘reached’ or passed through. It is through the very emphasis on movement that Peirce will make the notion of an isolated point irrelevant: an isolated point can indeed never be reached and hence it cannot be regarded as the proper limit of any process. But by making the limit a mere

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<sup>62</sup> Peirce extensive treatment of discretisation culminates in his published paper ‘On the Logic of Number’ in *The American Journal of Mathematics* in 1881 (*W4 P187* 1881, 299-309). In this paper – a copy of which Peirce had sent to Dedekind prior to the latter’s *Was sind und was sollen die Zahlen?* in 1893 – Peirce puts forth an axiomatic system of natural numbers. In his doctoral dissertation, Paul B. Shields has discussed extensively Peirce’s contribution to the foundation of modern mathematics in conjunction with Dedekind and Peano’s formulations, among others, drawing emphasis on the priority of Peirce’s treatment of cardinality, categoricity, and the axiom of infinity (see Shields 1981).

<sup>63</sup> Peirce refers to Aristotle’s definition in *Physics*:

The continuous is a subdivision of the contiguous: things are called continuous when the touching limits of each become one and the same and are, as the word implies, contained in each other: continuity is impossible if these extremities are two. This definition makes it plain that continuity belongs to the things that naturally in virtue of their mutual contact form a unity (*Physics* 227a10-15).

It should be clear from our argument that Peirce does not take the adjacency of borders as touching; or, rather, the touching is not literal. As he makes it clear, ‘Aristotelicity’, the special term he devises to explain what he means by adjacency, means that ‘if a series of points up to a limit is included in a continuum the limit is included’ (*CP* 6.122). We agree with Potter and Shields that ‘Aristotelicity’ defines the requirement that a continuum ‘contain its limit points’ (1977, 25).

point on a metrical continuum external to that continuum, mathematics had not only made the philosophical concept of continuity impossible but also cognition itself. If such externalism were the case, the red and blue parts of our surface, or a past and a future idea, would never be perceived as actually distinct. For Peirce, the nature of the limit had yet to be apprehended.

What is the nature of the limit if it is neither a point nor a line external to the series it limits? The answer reveals Peirce's preference for a topological mode of thought – both in the philosophical and the mathematical sense of the word. Postponing Peirce's ties to philosophical topology for the next part, in terms of the latter the limit is understood through the concept of 'immediate neighbourhood' (W8 1892, 156; *CP* 4.125). Peirce's engagement with the notion of neighbourhood is the product of a long and sustained inquiry into non-Euclidean or projective geometries, which we cannot hope to reproduce here.<sup>64</sup> It suffices for our present purposes to say that his examinations lead him to a conclusion rather reminiscent of the Riemannian formulation of continuity before him: the immediate neighbourhood is an intuitive concept that designates an open interval or open set containing a given point while the latter is no longer defined in set-theoretical terms but is seen as continuous or co-related with an ambient space. Indeed, this is what Peirce alludes to in his 'thunderbolt' example:

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<sup>64</sup> There is no doubt that Peirce is fully conversant with the developments on non-Euclidean geometry of his day, the formal inauguration of which had begun only a few years before his own undertakings with Lobachevski's and Bolyai's independent non-Euclidean trigonometries published in 1830 and 1832 respectively, Riemann's groundbreaking summarisation of the new paradigm in 1854, and Klein's 1871 integration of Cayley's projective metrics and hyperbolic geometry. Peirce's engagement with these developments is not simply metaphysical but also scientific and this is obvious in his take on the untenability of the fifth postulate of Euclidean geometry in a variety of writings including his 'Non-Euclidean Geometry Made Easy' (W8 1890, 25-29), his 'Methods of Investigating the Constant of Space' (W8 1891 229-230), his 'Astronomical Methods of Determining the Curvature of Space' (W4 1981, 425) and his review for *The Nation* (54:116) of Lobachevski's *Geometrical Researches on the Theory of Parallels* (trans. 1891), titled 'The Non-Euclidean Geometry' (W8 1892, 271-274).

Suppose [...] we have a region about like the whole surface [...]. Suppose a thunder-bolt rends this into two parts about alike, a crack separating them. Suppose a second thunderbolt similarly rends both parts; and each successive thunderbolt rends all the parts the last left into two new parts about alike. Suppose these thunderbolts to follow at the completion of each rational fraction of a minute. Then, at the end of the minute, the region will be rent into innumerable parts about alike. These parts are neighborhoods or infinitesimals [...] Even if the operation broke it up into single points, which is an unfounded proposition, still all the cracks that have been made in no wise alter the relations of the points to one another. The space the region occupies, though interfiltrated through with another space, remains the same, and the relations of its parts the same (*CP* 4.125).

It is obvious from the above that our philosopher ascribes to a concept of continuous spatiality. To borrow Albert Lautman's treatment of Riemann's analogous formulation, such a concept puts forth a local manifold constructed by bringing together infinitely near 'points' whose assemblage is nonetheless irreducible to a global (set-theoretical) characterisation (Lautman [2006] 2011, 61). The conception of a 'continuous surface', as Peirce calls it, implies that in the open intervals or subspaces the global structure, may 'interfiltrate' one another thus generating new intervals or neighbourhoods. But with a notion of space that is objectively generative of difference, even if we grant that every point has a small neighbourhood that may be treated in a Euclidean way, the same does not hold for the manifold as a whole.<sup>65</sup> Peirce expresses the problem through the differential geometry of hyperbolic manifolds of constant negative curvature (which although describable as a Riemannian manifold, are nonetheless considered by Peirce to differ in orientation from the latter's 'elliptical' geometry of positive curvature).<sup>66</sup> In hyperbolic space, curvature is intrinsic to every interval (known as a

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<sup>65</sup> Although there are conformal Euclidean models for hyperbolic space, the two spaces do not coincide in several aspects. See Cannon et al. (1997, 86-94) for the unique characteristics of hyperbolic model that demand a metric different than the Euclidean one.

<sup>66</sup> Throughout his career and in conjunction with his work on astronomy and cosmology, Peirce favoured the negative or hyperbolic curvature of space, thus aligning himself with Lobachevski against Riemannian and Euclidean geometry, which he had classified as elliptic and parabolic

‘saddle point’) and not simply a property of the ambient higher-dimensional space in which that point may be contained. Given a line and a point outside it on a hyperbolic plane, at least two lines may be drawn through the point that are on the same plane as the line without intersecting it that are asymptotically ‘parallel’ and an infinite number of lines may be drawn which are ‘ultra-parallel’ to the original line (contrary to the Euclidean model, which postulates only one such line termed parallel to the first one)

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respectively, after Felix Klein’s triple distinction of geometries (*W4 MS394*, 580). Peirce made considerable efforts to determine the constant of space, which is known as the Gaussian curvature  $K$ . When the constant is zero, the resulting space is parabolic and Euclidean and the universe flat; when positive, the space is elliptical and the universe closed; when negative, the space is hyperbolic and the universe is open (see *Appendix*). Peirce’s preference for an open universe is obvious in various instances of his work. In an undated manuscript (*Widener IA-7*), he writes:

[...] the physical geometry of celestial triangles needs examination, in order to ascertain whether the constant of space may not have a sensible magnitude. I have undertaken such an examination. I began by forming a list of all possible methods of determining this quantity by means of the following observations: 1st, the parallaxes of stars; 2nd, the numbers of stars of each parallax; 3rd, the proper motions of stars; 4th, the numbers of stars of different proper motions; 5th, the spectroscopic determinations of the motions of stars in the line of sight; 6th, the magnitudes of stars; 7th, the numbers of stars of each magnitude. My list of possible methods was long. All of them, it is true, involved some hypothetical element; but that is true of any research, whatever, into the value of a physical quantity; and it is possible so to modify the methods that the hypotheses that appear the most dangerous may probably be eliminated. I applied several methods: they seemed to indicate a hyperbolic space with a constant far from insignificant (*CP* 8.93 Fn 2 p 71)

Peirce kept on pursuing the theory of the curvature of space well into the 1900s. Seven years before Poincaré’s 1908 famous analytic explorations of hyperbolic geometry in conformal models in *Science and Method* (Poincaré [1908] 1952), Peirce will submit a manuscript titled ‘On Two Map-Projections of the Lobatschewskian Plane’, to Smithsonian Institution for presentation to the National Academy, where he will put forth a strong argument on hyperbolic nature of space. Although the manuscript will not arrive in time to be read, there is indication that Peirce has already formulated a theory of curvature:

The proper motions of the stars show very strong indications that our space is really hyperbolic, or, what comes to the same thing, that the law of dynamics, or kinematics, is such that if two stars move in the same plane with the same uniform velocity, without being acted upon by any forces, and each appears at one moment as seen from the other to be abreast with it, then as time goes on each will fall behind the other. Other indirect arguments tend to confirm me in this opinion; and thus, entertaining for this species of geometry something closely approaching belief, I have found it convenient to give it intuitional shapes by map-projections (*NEM* 1901, 3.710–21).

Having made an explicit connection between the three divisions of geometry with philosophy, in a letter to Christine Ladd-Franklin in 1891 he states his preference for the hyperbolic kind (*CP* 8.316–8.318). As the editors of the eighth volume of Peirce’s chronological studies note, it was in the latter that Peirce found an adequate model for evolutionism (*W8* 365–6). We will see at the end of the next chapter what the philosophical stakes of this choice are.

(Cannon et al. 1997).<sup>67</sup> The outcome is the creation through the exponential rate of progression of these lines of a continuous open manifold that may be embedded in a Euclidean space but is never isometric to the latter. In other words, conceptually, it cannot be considered as an unproblematic ‘unity’.

There is much about Peirce’s preference for hyperbolic geometry and its connection to his preferred mode of a hyperbolic philosophy that we will be touching upon shortly. But we can easily enough see the value of this mode of thinking for our problem of synthesis: in the same way that the continuous manifold cannot be unified by the pre-defined metrics of Euclidean geometry, phenomena cannot be unified by the pre-given structures of a transcendental subject. Synthesis must be accounted for in uncritical or metaphysical terms and it is this possibility that the inter-filtration of intervals opens up. Indeed, the adequate conception of the infinitesimal is tied with a metaphysics of continuous connections that is evident in a conception of the limit as a primitive place where ‘points’ converge only to diverge. For Peirce, such a place cannot be properly described as a line (since the latter is the product of a degenerate conic into two imaginary points) (*CP* 1.365). In terms of a hyperbolic manifold, the limit is better described as a *curve* on a surface returning unto itself as it is passed through and ‘over which an area on the surface on which it is drawn cannot extend’ (*MS1597* ‘Boundary-line’; Peirce qtd. in Havenel 2008, 100). Here Peirce’s conviction that hyperbolic geometry is not simply a formal matter but extends to physical space is visible: all lines in real projective space are self-returning – in other words, they meet at an infinite ideal point and then return unto themselves. The difficulty is to conceive of the particular metaphysical status of this liminal curve, which has a curiously triadic nature. Insofar as it is passed, the limit may indeed be seen or perceived as *actual* or

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<sup>67</sup> This is illustrated by the famous Poincaré disc model (see *Appendix*).

*existing* – namely, as separating a blue and a red area and hence as being both blue and red. Insofar as it is considered in itself, the limit is not ‘*actual*’; it is not determinate as to the property of being coloured for it does not *exist*. When considered in itself the curve or limit is pure ‘*potential*’ and, in this sense, it *may be* determinate (CP 4.127; 6.126; 6.182- 186; NEM 3.748).<sup>68</sup> Yet there is a third aspect to the limit for insofar as it separates the blue and the red areas by connecting them, it *consists* with them as pure relation or pure flow or mediation.<sup>69</sup>

From the perspective of such a subtle triadic description, the passage from the non-perceived infinitesimal to the perceived is no longer a problem for the difference between the two is not arithmetical, strictly speaking. Rather, the problem itself is exposed as stumbling upon the assumption that such difference must be recognised or that recognition is the whole of cognition. As we will show shortly, Peirce will tackle the problem with a metaphysics that goes hand-in-hand with a total redefinition of intuition. In any case, the triadically structured concept of germinal continuity should not be interpreted as the opposite of discreteness. From the standpoint of the infinitesimal limit, ‘separation involves no breach of continuity’ (CP 4.126). Rather discrete parts are determined as parts out of the continuum. Or, as Jérôme Havenel puts it, Peirce’s ‘continuum is not built out of parts but [...] the parts

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<sup>68</sup> As he puts it in the section ‘Potential Aggregates’ in the essay ‘The Logic of Continuity’:  
[...] the potential aggregate is, with the strictest exactitude, greater in multitude than any possible multitude of individuals. But being a potential aggregate only, it does not contain any individuals at all. It only contains general conditions which permit the determination of individuals [...].

[The] potential aggregate of all the abnumeral multitudes is more multitudinous than any multitude. This potential aggregate cannot be a multitude of distinct individuals any more than the aggregate of all the whole numbers can be completely counted. But it is a distinct general conception for all that – a conception of a potentiality’ (CP 6.185-187).

<sup>69</sup> It is easy to spot here the indebtedness of Peirce to medieval thought and in particular Scotus’s theory of individuation. Without denying the important connection of our philosopher with this tradition, in the next chapter we will trace this distinction to a Platonic lineage of thought.

of the continuum are built out of the continuum' (2008, 89). It is clear, then, that the point for Peirce is to conceive of a continuum that not only co-emerges (*qua* internal) with the series of individual parts but is also the principle of heterogeneity or differentiation through which these series diverge by being manifestly different from one another. We have here a first picture of a very idiosyncratic metaphysical concept of continuity as abstract variation or generative difference that is later manifest as the freedom of the absolute to self-diversify. Let us defer a detailed account of this conception for the next chapter and limit ourselves to noting that this initial concept does not simply propose a thesis on spatiality. Bearing the suggestive subtitle '[An Excursus on the Idea of Time]', the 'Law of Mind' clarifies that the mode of the being of the limit is also, and perhaps more importantly, a thesis on temporality.<sup>70</sup> Indeed, the continuous manifold elaborates a concept of time, which is not *a priori* formal but internal to or co-articulated with the series of events it limits. Once again, we need to invoke the critical paradigm in order to make Peirce's innovation visible. We have seen that with the primacy of the pure form of time as *inner sense*, Kant is able to maintain that the object is transcendently determined by the subject. Such is the double role of inner sense, which presides both over external phenomena and over itself and which marks Kant's break from the classical metaphysical notion of time. As Deleuze beautifully puts it, as a pre-given form Kantian 'time is no longer related to the movement which it measures, but movement is related to the time which conditions it' ([1963] 1984), *vii*). In other words, we pass from a cyclical conception of time that moves to a linear conception of time prior to movement.

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<sup>70</sup> In fact, as Peirce will put it in a letter to W.E. Story a few years later, 'Time [...] affords an opportunity of studying true continuity' (March 22, 1896) (*NEM* 3, vi).

The newly posited linearity of time is not lost on Peirce. No evolutionist could ever adhere to a purely cyclical view unproblematically. Peirce is not a thinker to deny the arrow of time and the process of growth. Notwithstanding the novelty of the Kantian intervention in the classical doctrine of time, the fact remains that in the context of the new concept of continuity, the *homogeneous* and *a priori* formal character of time are problematic. For one thing (as we have demonstrated previously with regard to the noumenon) the pre-givenness of time implies that it is unrelated to phenomenal events. Yet this presumed non-relatedness in fact makes the very conception of such an empty transcendental field impossible. There must be sensible events already there for us to be able to conceive of a pure form of time that is to be distinguished from them. The fact, however, that the representation of time itself is conceived by Kant as a homogeneous whole already betrays the Euclidean metrical foundation that is an impediment to the very diversity that is necessary for one to tell things apart. The problem of synthesis re-emerges. For, setting aside the equally problematic connection between *a priori* time and *a posteriori* events, how is one to conceive a pure synthesis of temporal parts if these parts are homogeneous or indiscernible like points on a line? Any synthetic unification of parts into a whole requires that the parts be *really* different and this is possible only through an understanding of Time as germinally or differentially continuous in the first place.<sup>71</sup> Our argument is that this is precisely where the philosophical value of hyperbolic geometry is to be found. If the function of hyperbolic manifolds is appealing for Peirce, it is because in contradistinction to elliptical or spherical manifolds, it is open. Coupled with the subtle metaphysical distinction we have mentioned above, this openness

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<sup>71</sup> The relation of time to indeterminacy and the process of becoming is discussed in the Logic Book of 1873, *MS* 390, 391, and in 1898 in 'Causation and Force' where Peirce calls time 'the form under which the law of logical dependence presents itself to intuition' (*CP* 6.87).

allows for the coexistence of a ‘cyclical’ and a ‘linear’ view of time: insofar as the limit is considered in itself or as potential, it is unlimited by any geometrical singularity or actual sensible event and returns unto itself. Nonetheless such circularity is not the circularity of sameness (which would be the case in elliptical or parabolic manifolds, according to Peirce) for insofar as the potential co-emerges with the actual event or *consists* in it, the implication is that the potential is not only already differential but that is further susceptible to differentiation with each actualisation.<sup>72</sup>

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<sup>72</sup> Peirce’s writings on time (the mostly famous exposition of which is found in the *Monist* papers 1891-1893) span his entire opus but it is clear that the core of these writings is the problem we have mentioned above – namely, the coupling of cyclical repetition and evolutionary change. In 1905, Peirce writes:

There are two distinct questions to be answered concerning time, even when we have accepted the doctrine that it is strictly continuous. The first is, whether or not it has any exceptional instants in which it is discontinuous, – any abrupt beginning and end [...]

The other question is whether time is infinite in duration or not. If it has no flaw in its continuity, it must, as we shall see in chapter 4, return into itself (*CP* 1.274).

To the first question, Peirce replies positively. In other words, the hypothesis of an abrupt beginning and end is conceivable, provided that we are speaking about the level of *actuality*, in which case the argument that discreteness is relatively determined in terms of potential continuity is strengthened. The reply to the second question gives us a clearer view of how Peirce proposes to couple difference and repetition. The problem is one of measurement:

The question [...] is, What is the natural mode of measuring time? Has it absolute beginning and end, and does it reach or traverse infinity? Take time in the abstract and the question is merely mathematical. But we are considering a department of philosophy that wants to know how it is, not with pure mathematical time, but with the real time of history's evolution. This question concerns that evolution itself, not the abstract mathematical time. We observe the universe and discover some of its laws. Why, then, may we not discover the mode of its evolution? Is that mode of evolution, so far as we can discover, of such a nature that we must infer that it began and will end, whether this beginning and this end are distant from us by a finite number of days, hours, minutes, and seconds, or infinitely distant? (*CP* 1.276).

Peirce’s reply to this problem is particularly interesting as it sets the tone for his hyperbolic philosophy. Peirce gives three equations corresponding to a spiral which is the visualization of evolutionary law: the first spiral is logarithmic where the universe has ‘an absolute beginning at a point of time in the past immeasurable in years’ constantly increasing toward a limit (or radius) which it will ‘never surpass until its final destruction in the infinitely distant future’; the second spiral, which is not strictly logarithmic, equally begins at a certain point in time though its evolution continues uninterruptedly; the third spiral finally posits that the universe started a finite number of years ago and ‘will go on for an infinite series of years approximating indefinitely to a state [...], after which it will begin to advance again, and will advance until after another infinite lapse of years it will then in a finite time reach the stage [...] when it will be suddenly destroyed’ (*CP* 1.276). For the full quote and a visualisation of the spirals, which Peirce does not provide, see *Appendix*. Nonetheless, we should emphasise from the beginning that none of these hypothesis aims to negate Peirce’s basic argument of germinal continuity

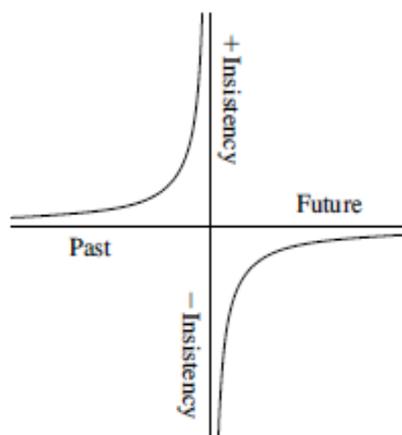
We will find the above framework of differentiation explained topologically to be at the heart of Peirce's solution to the Kantian problem of ends as it is clearly the gateway through which the explanation of the genesis of reason as continuous with yet different from Nature has to pass. For now, it is worth noting that at different points in his work, Peirce will express the above formulation as the inherent abstract variety of Firstness, thus juxtaposing the first both to the One of classical metaphysics and to its mutant version manifest in the problem of Kantian formalism. The germinal conception of Time (capitalised to stand in opposition to the Euclidean metrical conception) will be expressed according to the example of the continuous manifold as objectively productive of and made out of difference. Taking up this original intuition Peirce will write in 1908 that Time is a principle of determination of 'existents'; it is therefore internal to the relations between these existents but distinguished from them as the latter are 'perfectly determinate time' (Peirce qtd. in Kevelson 1987, 111; *MS138* 1908, 2). Moreover, such existents may be characterised as 'instants' provided that the latter are taken to refer to indivisible 'lapses' in each others' immediate neighbourhood (*ibid.*, *MS137.10* 1904). But such a conception is already anticipated in the 1892 fragment on the 'Affections of Ideas', with which we

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from which follows the continual beginning of *actual* time. Such a beginning is always a beginning, pointing to an understanding of time that is only minimally or potentially cyclical. What returns unto itself is the process of cosmic selection itself *qua* potential and not the actualities it selects. Peirce is perfectly aware of the impossibility of diagrammatising the cosmic passage from the potential to the actual in a two-dimensional surface and this is why he favours the third spiral, which is *open* both in its beginning and its end. Of course, such openness is primarily *metaphysical* and does not imply that the physical universe has no actual boundaries. In other words, the third spiral puts forth an (unavoidably inadequate) illustration of the ideality of the boundary or limit or Time which is not a point in (spatialised) time as the dominant implication of physical theories, such as the Big Bang, propose. Granting, of course, the diversity of interpretations of the latter (according to whether boundaries are admitted or not), the fact remains that in physical theories there does not seem to be a distinction between space and time as actual variables and Time as potential that would allow an adequate and non-contradictory conception of a perpetual beginning, which in Peirce's philosophy would be an adequate conception of continuity.

begun our discussion on continuity, where the notion of neighbourhood crucially appears as the concept of ‘insistency’. Peirce writes:

The insistency of a past idea with reference to the present is a quantity which is less the further back that past idea is, and rises to infinity as the past idea is brought up into coincidence with the present. Here we must make one of those inductive applications of the law of continuity [...] We must extend the law of insistency into the future. Plainly, the insistency of a future idea with reference to the present is a quantity affected by the minus sign; for it is the present that affects the future, if there be any effect, not the future that affects the present. Accordingly, the curve of insistency is a sort of equilateral hyperbola (CP 6.140).



**Figure 1: The Equilateral Hyperbola (CP 6.140)**

We have here a first glimpse of the appeal of hyperbolic curvature for Peirce’s endeavour to reconfigure the problem of synthesis in continuous terms. The limit is illustrated in the graph as the infinitesimal place between the two branches, figuring at once as the *ideal* or *potential* locus of pure flow that vanishes as the branches of the hyperbola approach the asymptotes and the *actual* boundary between ideas where the hyperbola crosses the asymptote to join the other to become a new idea in a manifold of ideas ‘covering’ each other. Yet with this diagram, the topological notion of covering acquires an additional meaning, which is conveyed by the notion of insistency, as we have said above. Insistency, in this case, should not be misunderstood as the

capacity to neatly situate ideas with regard to one another in terms of distances or temporal intervals – this is not the meaning of the infinitesimal interval. Rather, insistency refers to the very fact that ideas persist and vanish as they go through changes in intensification, as Roberta Kevelson notes (1987, 101). What Peirce writes on the subject in 1883 is the following:

We are familiar with fact that an idea of any difficulty requires time for its formations. But this is not the fact to which I have reference now. Not only does it take time for an idea to grow but after that process is completed the idea cannot exist in an instant ~~but is itself the nature of a process~~. During the time of its existence it will not be always the same but undergoes changes [...] It thus appears that all ideas occupy time so all ideas are more or less general and indeterminate, the wider conceptions occupy longer intervals' (Peirce qtd. in Kevelson 1987, 101; MS391 1883; strikethrough in original).

It is obvious from the above passage that insistency reveals a quite particular concept of time as we are no longer dealing with ideas-phenomena immersed in a subjectively structured framework of temporality. Rather, the situatedness of an actual idea in time is relative to its own inherent ability to endure changes, which reveals the nature of this idea as process and the importance of insistence as the primary metaphysical fact that the very variable of time (as well as of space) presupposes. In other words, what Peirce proposes with insistency is a society or ethology of enduring ideas that construct their unique spatial and temporal manifestations continuously or relatively to one another. In place of an empty formal intuition, we have the limit as the generative place of rising and diminishing insistency where an idea is 'already affectible and already affected' (CP 141). Crucially, such affectability provides the locus for the articulation of another important concept in Peircean philosophy – namely, of habit 'by virtue of which an idea is brought up into present consciousness by a bond that had already been established between it and another idea while it was still *in futuro*' (CP 141; original

emphasis).<sup>73</sup> The question of habit will be taken up in greater detail in the second part of this thesis, when we delve into Peirce's transformation of formal logic into a logic of relations subtending his division of the signs (whereupon the habit will be exposed as the essential character of the symbol). For now, we need to return to and refine our claim that Peirce's hyperbolic metaphysics of the limit constitutes a thesis both on spatiality and temporality. In a way astonishingly close to the Bergsonian argument about Kantian time (Bergson [1898] 2001, 232), the common application of the

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<sup>73</sup> The continuous affection of ideas is beautifully conveyed in Peirce's 'lake metaphor' in an undated fragment (ca 1900) that we are reproducing below:

I think of consciousness as a bottomless lake, whose waters seem transparent, yet into which we can clearly see but a little way. But in this water there are countless objects at different depths; and certain influences will give certain kinds of those objects an upward impulse which may be intense enough and continue long enough to bring them into the upper visible layer. After the impulse ceases they commence to sink downwards (CP 7.547).

And again:

We are going to shock the physiological psychologists, for once, by attempting, not an account of a hypothesis about the brain, but a description of an image which shall correspond, point by point, to the different features of the phenomena of consciousness. Consciousness is like a bottomless lake in which ideas are suspended at different depths. Indeed, these ideas themselves constitute the very medium of consciousness itself. Percepts alone are uncovered by the medium. We must imagine that there is a continual fall of rain upon the lake; which images the constant inflow of percepts in experience. All ideas other than percepts are more or less deep, and we may conceive that there is a force of gravitation, so that the deeper ideas are, the more work will be required to bring them to the surface. This virtual work, which the mathematicians call the 'potentials' of the particles, is the negative of the 'potential energy'; and the potential energy is that feature of the image which corresponds to the degree of vividness of the idea. Or we may see that the potential, or depth, represents the degree of energy of attention that is requisite to discern the idea at that depth. But it must not be thought that an idea actually has to be brought to the surface of consciousness before it can be discerned. To bring it to the surface of consciousness would be to produce a hallucination. Not only do all ideas tend to gravitate toward oblivion, but we are to imagine that various ideas react upon one another by selective attractions. This images the associations between ideas which tend to agglomerate them into single ideas. Just as our idea of spatial distance consists in the sense of time that it would take with a given effort to pass from one object to another, so the distance between ideas is measured by the time it will take to unite them. One tries to think of the French for *shark* or for *linchpin*. The time that it will take to recover the forgotten word depends upon the force of association between the ideas of the English and French words and upon circumstances which we image by their *distance*. This, it must be confessed, is exceedingly vague; as vague as would be our notion of spatial distance if we lived in the body of an ocean, and were destitute of anything rigid to measure with, being ourselves mere portions of fluid (CP 7.553; original emphasis).

geometry of hyperbolic manifolds to spatial and temporal intervals does imply that on the *actual* level, time is another manifestation of space (the hyperbolic metric is, after all, a metric). But on the level of the *potential*, the hyperbolic manifold supports a more sophisticated metaphysical conception of Time as objectively heterogeneous and continuously generative of difference that is primary to and required by the actual variables of space and time marking sensible events or things.

## **2.b. The First Impression Revisited**

With the above framework of germinal continuity in place we are in the position to take up again the problem of the first impression, which was the reason we digressed into the discussion of infinitesimals. We began this section with the argument that Peirce's exploration of continuity has its roots in his objection to the Kantian series of separations – between the form and the matter of thought, the noumenal and the phenomenal, reason and un-reason – culminating in the problem of unifying sensations as *immediate* or first cognitions. From the perspective of germinal continuity, supposing the existence of a very first cognition as an immediate affection by a thing in itself absolutely external to this cognition, is a not only a logical but an ontological impossibility. To say that a sensation has not been previously determined is to succumb to the logic of discontinuity which, having established discrete parts on a metrical homogeneous continuum, finds it impossible to connect them without relapsing to the lacuna of infinite division (in terms of which a sensation would be forever on its way to becoming a concept). *Qua* actual, any cognition is *ipso facto* relatively determined. It

thus already presupposes a generative crack or potential limit and other ‘instances’ – namely, other cognitions playing a part in its actualisation.

It is important, before moving on with our analysis, to address the possible objection that we have been attempting a retrospective reading of early Peirce. For we have indeed mentioned in the beginning of this section that his engagement with the differential and infinitesimal calculi comes after his excursion into the Kantian dichotomies. Yet as we have been trying to demonstrate, it is the very problem of the first cognition that prepares Peirce’s subsequent formulations of germinal continuity as the only framework adequate enough to counteract the critical series of divisions. In fact, it is our conviction that Peirce’s musings into the mathematics of continuity corroborate a metaphysical tendency our philosopher entertains long before such explorations. In the second half of this thesis, we will see that the preference for a topological mode of thought in Peirce actually begins as an engagement with the Platonic philosophy of the topos (evident in the ‘I, Thou, It’ table of 1857 we have mentioned in the previous section) thus affirming that the question of the infinitesimal is implicated with a metaphysics of the unconscious, a metaphysics of continuity between subject and nature from the beginning.

Back to our discussion, we saw that the first cognition can only be an open interval or subspace in a continuous spatial and temporal manifold of other cognitions that *exist* by various intensities of *insistency* that increases or diminishes as they cross their immediate neighbourhood to perish and become involved into novel determinations. Based on this premise, Peirce goes on to dismiss the characterisation of sensation as immediate. If anything, sensations are already instances of perceptual judgments in a chain of judgments. They are already conceptual or recognised. Like conceptions, they have a ‘logical nature’; they are ‘hypothetical predicates which the

mind affixes by virtue of a hypothetical inference in order to understand the data presented to it' (W1 MS130 1866, 473). 'Red', 'hard', 'loud' are nothing but 'mental names', 'the writing on the page of consciousness' and therefore they are 'in the mind' (*ibid.*, 473). Clearly, then, the riddle of immediacy must be tackled on a different level. To do so, Peirce decides to delve into the territory of intuition. Intuition, however, is to be distinguished from sensibility.<sup>74</sup> First of all, as he explains, the commonplace definition of intuition as 'that knowledge between which and the thing no other representation in consciousness intervenes' turns on the 'sadly equivocal' word consciousness (W1 MS133 1866, 515). We may take intuition to denote 'the presentative character of all that is within us', but insofar as we *give* this character to consciousness – insofar as we make intuition an instant or point on the line of consciousness – such definition does very little to specify where immediate knowledge ends and mediate knowledge begins:

*[Immediate] cognition* [can be taken to express] what is otherwise termed an ultimate fact; that is, a premiss not itself a conclusion, an empirical constituent of knowledge not itself containing non-empirical parts, in short, an *impression*.

Whether there be any such ultimate premisses is a difficult question. It amounts, however, merely to this; whether the *boundary* is in consciousness or out of it. In whichever way it be decided, the employment of a word to denote that *boundary* is legitimate (*ibid.*, 515; original emphasis).

Peirce's response to his own question about the boundary not only anticipates his understanding of continuity but also reveals the crucial connection of this notion to a

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<sup>74</sup> Peirce has argued against 'intuition', most famously in his 'Questions Concerning Certain Faculties Claimed for Man' (W2 P26 1868, 193-211) and in his 'Some Consequences of Four Incapacities' (W2 P27 1868, 211-242) and has put forth 'experience' in terms of secondness (CP 1.332). To avert possible terminological confusion, we use the term 'intuition' or 'experience' in the reclaimed sense of metaphysical 'feeling' and in accordance with what we have claimed to be Peirce's superior empiricism. Peirce's objection to 'intuition' has to do with the confusion of impression with sense-perception. As for the 'experience' of secondness, this is indeed sensation yet qua recognised is to be distinguished from feeling which is its irreducible substrate.

metaphysics of the un-conscious, which is the spine of our inquiry. Indeed, it is in conjunction with the beginning of consciousness that the place of the boundary is first posed:

The first impression of sense is not cognition but only the *limit* of cognition. It may therefore be said to be so far out of the mind, that it is *as much external as internal* [...] There is a paradox here. But so there is in respect to any beginning or any limit of anything continuous. Does the line of separation between black and white surfaces lie within the black or the white? Since the surfaces are contiguous, points on this line lie within one or the other, for black covers by definition all points with a certain space not covered by the white and no others. But these points are no more in one surface than in the other. Whatever may be the solution of this antinomy, it is plain that the apparent contradiction respecting our beginning of consciousness is of the same nature (W2, MS149 1868, 191, added emphasis). It is precisely in terms of the internal and the external insisting or being in each other's neighbourhood, which illustrates the peculiar mode of being of the boundary in itself as potential, that a different understanding of noumena first appears. These 'first impressions upon our senses', writes Peirce, are 'not representations of certain unknown things in themselves but are themselves those very unknown things in themselves' (W1 MS130 1866, 471). With the conception of the noumenon as an intuited infinitesimal, Peirce pursues several lines of argument simultaneously. On a first level, it becomes clear that the double-world hypothesis is abandoned as impressions refer neither to things as they 'really' are nor to a transcendental object. Insofar as they are the limit of cognition, they are not absolutely external and incognisable but reciprocally or continuously determined *with* that cognition. On the other hand, however, they are not *given to* conscious recognition. As Peirce insists, 'a recognised difference between two impressions would be a difference between them as *compared*, that is as mediately known, and not between them in themselves' (W1 MS133 1866, 515). The impression, then, retains its status as 'uncomprehended' in

itself or immediate (*ibid.*) Elsewhere called ‘idea’, ‘impression on the soul’, or ‘ideal limit’ – named so in contradistinction to ‘possible limit’ (W2 MS149 1868, 191) – it is an intensive infinitesimal duration and hence prior to any form of objectivity provided by the understanding. Strictly speaking then, we are not talking about the interval as a measurable quantity but only as a flowing ‘quantity’ or quality; the characterisation of quantity rather belongs to sensation that, as we saw, is a recognised and hence quantifiable predicate. To the extent, then, that impressions are liminal or infinitesimal, they are intensive qualities lodged *in-between* the knower (the thought) and the thing known (the thought-of) but before either of the latter are recognised as such. Impressions are continuous with consciousness but at the same time they elude it. It is this paradoxical formulation that reveals the enigmatic notion of Image *qua* Image appearing in the [*Treatise*] to be a cognate to impression or thing in itself. As Peirce says: ‘to view an image as an image it must be indispensably have come from within and that such as do so come we cannot regard as representations but as immediate consciousness’ (W1 MS70 1861-1862, 62). Yet this immediate consciousness is at the same time ‘the most external thing in existence’ (W2 MS96 1868, 191). The Image in itself is therefore conceptualised as an ‘inside-outside’ that is ‘out of the mind in the sense that the degree of consciousness in it is *zero*’ (*ibid.*; original emphasis).

The framework of vividness or degrees of consciousness reveals not only the particular stance of Peirce to the problem of the nature of infinitesimal as intensive but also his solution to the problem of the ‘matter’ of thought, which is remarkably close to Salomon Maimon’s differentials. Zeroness, or the primitive un-consciousness that will later be termed as *primisense*, literally becomes the liminal experiential ‘material’ or ‘stuff’, to use Salomon Maimon’s expression ([1790] 2010, 88), from

which reason must begin in a process that is always already continuous.<sup>75</sup> As Peirce affirms:

Our experience of any object is developed by a *process* continuous from the very first, of change of the cognition and increase in the liveliness of consciousness. At the very instant of this process, there is no consciousness but only the *beginning of becoming conscious*. It is also not a real [but an ideal] state of mind because it instantaneously passes away (*ibid.*, 191; added emphasis).

From the perspective of a becoming-conscious, the concept does not need to look for its material consistency in an imaginary focus outside it. Contrary to the Kantian formulation, Peirce brings this focus down from the faculty of Reason to the faculty of Intuition as the limit, where reason finds the real principles of its internal genesis now conceived as a gradual increase in degree. Does this increase also imply that reason eventually crosses the limit to become infinite? This is a very interesting question about Peirce's doctrine that we will touch upon later. For the moment, we only need note that by inserting a limit between the conscious and the unconscious self, Peirce offers a preliminary sketch of a theory of conscious thought being continuous with and dependent on its own unconscious operation. This is the culmination of a point Peirce has already made in 1857 according to which ideas are, properly speaking, '*unthought*'. After crossing the limit into the field of consciousness, ideas may be regarded as representations or 'true thought'. But as long as their status remains liminal, they are '*unconscious*' and as such they can be neither perceived nor recognised but only

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<sup>75</sup> As Maimon writes: '[We] cannot deny that there are different kinds of perceptions; they provide us with the matter [*Stoff*] that thinking makes into different objects: this is the Kantian transcendental idealism and empirical realism' ([1790] 2010, 88). Although we have not been able to find any indication that Peirce is aware of the former's reply to the Kantian problem of synthesis, the similarities between the two thinkers especially as regards the theory of differentials seem to us to be striking. We owe the inspiration for this brief connection to Daniela Voss's excellent discussion on Maimon's response to Kant (Voss 2011). Excepting the major difference that, for Maimon, the differentials are defined as the 'ideas of the understanding' (Voss 2011, 63) whereas for Peirce's the differentials belong to metaphysical intuition, the fact that the two thinkers converge sheds further light to the persistent problem within Kantian philosophy of the formal a priori conception of space and time.

*intuited, experienced, or felt* (W1 MS53 1859, 40-42).<sup>76</sup> As Peirce writes in the ‘Continuity of Ideas’ in 1892:

[In] this infinitesimal interval, not only is consciousness continuous in a subjective sense, that is, considered as a subject or substance having the attribute of duration, but also, because it is immediate consciousness, its object is *ipso facto* continuous. In fact, this infinitesimally spread-out consciousness is a direct feeling of its contents as spread out [...] In an infinitesimal interval we directly [feel]<sup>77</sup> the temporal sequence of its beginning, middle, and end – not, of course, in the way of recognition, for recognition is only of the past, but in the way of immediate feeling (CP 6.111).<sup>78</sup>

With the radical re-conceptualisation of intuition as unconscious limit, Peirce claims to restore that most important faculty that ‘representationalists’ have ‘denied to us’ – the ability, namely, to *feel* things in themselves as phenomena (W2 MS96 1868, 191). He

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<sup>76</sup> ‘That which may be thought-of – which is a source of influx – I call a thing. Whatever is not thought I call unthought’ (W1 MS53 1859, 40). Interestingly, the essay’s full title is: ‘An Essay on the Limits of Religious Thought Written to Prove that we can Reason upon the Nature of God’.

<sup>77</sup> The original verb used here is ‘perceive’ but since we have associated perception with conscious recognition we have chosen to replace it with ‘feel’ to avoid terminological confusion. In his early years Peirce sometimes switches to perception, which here is consistent with ‘feeling’.

<sup>78</sup> The quotation continues:

Now upon this interval follows another, whose beginning is the middle of the former, and whose middle is the end of the former. Here, we have an immediate perception of the temporal sequence of its beginning, middle, and end, or say of the second, third, and fourth instants. From these two immediate perceptions, we gain a mediate, or inferential, perception of the relation of all four instants. This mediate perception is objectively, or as to the object represented, spread over the four instants; but subjectively, or as itself the subject of duration, it is completely embraced in the second moment. (The reader will observe that I use the word *instant* to mean a point of time, and *moment* to mean an infinitesimal duration.) If it is objected that, upon the theory proposed, we must have more than a mediate perception of the succession of the four instants, I grant it; for the sum of the two infinitesimal intervals is itself infinitesimal, so that it is immediately perceived. It is immediately perceived in the whole interval, but only mediately perceived in the last two-thirds of the interval. Now, let there be an indefinite succession of these inferential acts of comparative perception, and it is plain that the last moment will contain objectively the whole series. Let there be, not merely an indefinite succession, but a continuous flow of inference through a finite time, and the result will be a mediate objective consciousness of the whole time in the last moment. In this last moment, the whole series will be recognized, or known as known before, except only the last moment, which of course will be absolutely unrecognizable to itself. Indeed, even this last moment will be recognized like the rest, or, at least, be just beginning to be so. There is a little *elenchus*, or appearance of contradiction, here, which the ordinary logic of reflection quite suffices to resolve (CP 6.111; original emphasis).

therefore takes the very step Kant had not taken upon glimpsing the operation of the unconscious or nature in the human. In other words, he allows space in his philosophy for that mode of unconscious ideation that Kant had laid aside on account of it belonging to the province of physiological anthropology. With Peirce, however, such a mode of ideation will belong neither to the physiological nor the anthropological. Rather, its liminal status will qualify it as properly *metaphysical*. For at the limit, the pre-established distinction between nature and reason upon which critical philosophy relies to separate pragmatism into physiological and anthropological becomes problematic. To return to the argument we have been trying to flesh out in this chapter, at this germinal place, reason finds simultaneously its source and the potential for its own further self-differentiation; it is because reason *is* nature than it can develop its *own* nature. Only as part of a metaphysics of the un-conscious as Nature can the unification of impressions by the categories become an immanent affair.

In the manner of a proper experimenter, then, Peirce will have to fragment the movement from the unconscious idea to the true thought while recognising such movement as indivisible and non-composite. From this perspective, the separation between immediate and mediate cognition and the faculties will be granted. But Kant will be criticised for having raised the problem of immediacy on the already discretised territory of sensation thus rendering the intervention of a problematic *tertium quid* as another yet discrete operation enabling the synthesis between sensation and intellection. For Peirce, all parts of the synthesis need to be thought as continuous yet different modes of ideation because this is precisely how they are experienced: ‘we are carried in spite of ourselves from one thought to another, and therein lies the first real synthesis. An earlier synthesis than that is a fiction’ (*CP* 1.384; added emphasis). In the conceptualisation of this real synthesis, the *tertium quid*

is transformed into the limit between Ideas as *matter* and concepts as the *form* of representations, which are in turn taken to arising through an internal genesis from the faculty of intuition (W1 MS130 1866, 473). This, we argue, is the seed of a genetic or cosmological account of reason as part of a vast unconscious process of semeiosis by which Nature determines itself.

We need to pause for a moment to evaluate the novel parameters we have brought into the problem of synthesis. For even if we accept that Peirce makes the synthesis between intuition and concept a continuous affair, it could be objected that the distinction between unconscious and conscious ideation simply transposes the mystery of schematism on a slightly different layer – that, after all, Peirce’s noumena as phenomenal impressions reintroduce an obscure and unintelligible quality in the process of cognition. To make matters worse, it could be argued that ideas-impressions in experience present us with far more serious consequences than Kantian noumena since their occult character here is not a matter of the higher faculty of Reason but runs through the entirety of the empirical. Indeed, Peirce’s claim for the genesis of reason in un-reason – the claim that all components of synthesis must be taken as arising from the same source – might be taken to sink back to the dogmatic transcendentalism of the thing in itself simply clothed in different terms. As we have seen, the conceptualisation of the impression as the ideal limit of experience refers to something in the experienced presentation of which *we* are not conscious. The impression reveals a power to be affected which, at least from the point of view of the ‘I think’, seems purely passive. From this perspective, any philosophical reflection upon the production of impressions is always already condemned to think impressions as representations since the rule of production of these impressions remains out of reach. But if this is the case, everything pulls us back again to our all-too-familiar critical problem: it is not obvious that Peirce

has avoided separating the conditions of knowledge from the conditions of being and hence moved to a philosophy of Nature. It might be objected that it is not at all certain how Peirce's transcendentalism can be 'un-critical', to use our philosopher's term.

From a certain perspective, there is much in Peirce that would seem to support this scepticism. And yet, the doctrine of continuous determination needs to be defended from the accusation that it is a mere repetition of the critical problems. Peirce's conception the unthought within thought would be contradictory only if we were to take consciousness as engulfing both the things it represents and itself totally and transparently; only if we were to demand a harmonious and hierarchical working of the faculties that would allow nothing to escape the power of representation. This is not to say that Peirce does not struggle with the harmony Kant demanded. But, as he puts it, such a conception of an all-encompassing consciousness, as the one manifest in the Fichte and Hegel or psychological discourses systems, involves a misunderstanding of Kant in the first place. As far as Peirce is concerned, the place of the Kantian 'I think' in judgments is quite complicated and not nearly as straightforward. Especially psychologists such as Mill are too eager to dismiss the distinction between 'feeling and regarding that feeling as the affection of a sensitive *Ego*' and more interested in establishing an identity between 'feeling and self consciousness' (*W3 MS69 1872, 51*; original emphasis). But for Peirce there is nothing more misguided than confusing having a feeling with the conscious recognition of that feeling. The Kantian 'I think' must certainly be '*able to accompany every judgment*' in order to unify facts. Yet even for Kant this ability cannot be stretched too far. In Peirce's view, 'it is only necessary [...] that there should be a recognised unity in the objects of thought and that there should be a unity of the ego, but not that I should always refer the one to the other' (*ibid.*). As he concludes, '[to] think consistently is one thing, to think about our selves

is surely quite another' (*ibid.*). This leads him to conclude that the critical project involves an implicit but vital 'forgetfulness of self' (*ibid.*), which in 1903 he will characterise as critical philosophy's 'luminous element':

The third moment of Kant's thought [...] only made prominent in the second edition [...] was an idea in which Kant's mind was so completely immersed that he failed to see the necessity of making an explicit statement of it, until Fichte misinterpreted him. It is really a most luminous and central element of Kant's thought. I may say that it is the very sun round which all the rest revolves. This third moment consists in the flat denial that the metaphysical conceptions do not apply to things in themselves. Kant *never* said that. What he said is that these conceptions do not apply beyond the limits of possible experience. But we have *direct experience of things in themselves*. Nothing can be more completely false than that we can experience only our own ideas. That is indeed without exaggeration the very epitome of all falsity. Our knowledge of things in themselves is entirely relative, it is true; but all experience and all knowledge is knowledge of that which is, independently of being represented [...] But Kant failed to work out all the consequences of this third moment of thought and considerable retractions are called for, accordingly, from some of the positions of the transcendental Dialectic [...] We all commit our blunders (*CP* 6.95; original emphasis).

For lack of further commentary, it is difficult for the reader to figure out what precisely Peirce's point of disagreement with Fichte is other than what we mentioned above – namely, that there *is* something 'given' (although we need to use the word cautiously) to thought which cannot be captured by consciousness. As we mentioned in the previous chapter, by making phenomena entirely dependent on the positing subject, Fichte had denied the existence of any thing in itself in spite of the ego but in doing so he had also severed the fragile link between the phenomenon and the unknowable thing in itself and hence the opportunity to articulate the independence of the phenomenon. The possibility Peirce nurtures here is therefore the inclusion of the thing in itself as an essential part of the ego but without the contradictions and dichotomies of the Kantian project. The notion of the infinitesimal un-conscious, which is part of and yet different from the conscious self, is meant precisely to alleviate the contradiction of a given that

would only call for a conscious apprehension of it. Our representations, or ideas as true thoughts, remain a vital part of the cognitive process but they cannot over-determine synthesis.<sup>79</sup> Quite the contrary, synthesis must be understood in terms of the ethology of unconscious ideas that, far from being relative to the subject, are constitutive of it. The unconscious is a world from which the subject cannot be insulated by means of its abstractions. The *facultas signatrix* must emerge from patterns or neighbourhoods of insisting and vanishing signs.

It may be rightly observed that with the reconceptualization of intuition in terms of germinal continuity Peirce stretches Kant to a territory the latter would not recognise for his own. At the same time, however, it is clear that he occupies a niche he detects in the critical project, afforded by the very internal ‘schematic’ relation between Ideas, imagination, and intuition. What our analysis has allowed us to put forth so far is that, in this way, Peirce is able to expand upon the ‘luminous element’ of the direct experience of things in themselves. As we have tried to show in this chapter, the outcome of this expansion is an interesting transformation: *things in themselves* are not beyond all possible experience; now posited as Images or what we have called *things at the limit*, they are the phenomenal matter of real experience itself thus exposing the operation of nature in the human as real condition of consciousness. Indeed, by relieving ideas/phenomena from the structures of a transcendental subject, Peirce is already paving his way to a concept of Nature as fundamentally continuous yet no less differential thus allowing for a truly genetic account of reason without supposing a sameness of ends. We have delved into the mathematical treatment of continuity precisely in order to clarify a few of the preliminary technicalities that support this

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<sup>79</sup> According to Peirce’s Kant, too, subjectivity is less ‘a perception of one’s own existence or [...] knowledge of fact’; it is only ‘a form of point of view from which objects are conceived’ but it hardly captures the whole of cognition (W3, MS203 1872, 51).

venture. But we have yet to see how this novel account of intuition affects representation, the distribution of the faculties, the development of the Categories and how it connects with a ‘practice of Logic’ as the forerunner to a cosmologic of semeiosis. Understanding these aspects in Peirce’s thought and how they affect his definition of the sign are the topic of the second part of this thesis, to which we now turn.

## Part 2: Cosmic Signification

Such experience alone evolves the reason hidden within us and as utterly hidden as gold ten feet below ground – and this experience only differs from what usually carries that name in that it brings out the reason hidden within [...].

C.S. Peirce (*CP* 4.86)

In the first part of this thesis we attempted to reconstruct Peirce's critique of the anthropological sign as the context within which the articulation of a cosmic vision of semeiosis is to be understood. We argued that the recovery of signification as natural activity can begin only after intuition has been retrieved from Kantian formalism and the affiliated program of psychologism – that is, only after the application of pre-given concepts onto the real is transformed into a question of the genesis of the concept now perceived as continuous with a metaphysical un-thought or un-reason. Specifically against transcendental formalism, we showed that this attempt is expressed in terms of a double gesture involving, on the one hand, the objection that formal thought cannot properly account for the determination of the phenomenal and, on the other, the objection that thought cannot be unproblematically restricted to conscious intellect. This double objection, which centres on the demand that thought be able to produce its own matter, is corroborated by Peirce's turn to a more sophisticated concept of continuity that he finds to be lacking in Kant. Through the mathematics of topology, Peirce is able to bypass the false distinctions riddling the critical project and to put forth a concept of generative continuity that restates synthesis as a problem of genesis or natural differentiation. Such a restatement opens up the path for our reconceptualisation of things in themselves as things at the limit, Images, or ideas-

impressions that are *felt* in experience and hence 'given' to knowledge only to the extent that they escape conscious representation. Correlatively, Peirce gives us the first intimation of a metaphysical account of intuition which no longer requires the *a priori* intervention of the categories of the understanding as it neither synthesises into a higher unity nor does it analyse what it intuits into components. Neither purely sensitive nor purely active but passive-active, intuition only experiences its own self-differentiating activity emerging as a natural or non-human limit of a pure genesis of Images where every concrete feeling exemplifies a given that arises together with its rule. Disengaged from the framework of transcendental subjectivism, the crisis of limitation is now experienced as a generative or differential limit, a curve turning unto itself to produce a world. Such is the great experiment of Nature and, as we will see, the very source of the freedom of human reason itself.

From this point onward, it becomes clear that the genesis of the concept is merely an episode in the history of the development of reason that, in turn, is nothing else but the micrography of the history of the evolution of the universe. The intensive relations of this evolution are at the heart of the Peircean transformation of critical philosophy into a metaphysics of cosmic semeiosis. But we have not yet seen how this transformation takes place. In order to make explicit how the concept of differential continuity enables natural signification, we must continue our systematic reconstruction by examining and integrating into our thread the essays that expose Peirce's closeness to a philosophical topology that we have argued to be chronologically and conceptually prior to his mathematical undertakings. In fact, it is crucial that we do so since, in these unpublished manuscripts, Peirce sketches the outline of a semeiotic cosmogony effectively anticipating and grounding his mature exposition of the pragmatic method and the Categories. By delving into these writings

according to the problematic we have established, we will proceed to uncover an unmistakably Platonic influence in Peirce's thought through which we will pave our way to a more rigorous definition of the concept of the sign (which we have been using rather vaguely so far).

In general, we may indicate in advance what we will argue the components of this early cosmology to be. First, we will find operative in Peirce a rather particular concept of experience as metaphysically topological; this notion of experience will be connected to what we consider to be an equally particular doctrine of the Idea in which we will trace be the ancestor of the conception of differential Time and of the notion of the First. Second, we will uncover the outline of a logical method of philosophising as the very basis out of which the pragmatic method evolves. And, finally, we will find an already established doctrine of powers, persons, or impulses, which we will argue to foreshadow the development of the three Categories as a whole. In exploring the philosophical complement to Peirce's early topological thought, our aim is to consolidate further an issue that is simultaneously historical and structural and which we have argued to be evident both in the chronology of the texts and in Peirce's *oeuvre* as a whole – namely, the parallel development of pragmatic thinking and cosmological speculation. In the process of this conceptual excavation, our guide will be a question that Peirce poses in 1892 as the foundation of 'a grand cosmogony or philosophy or creation', whose echo is nonetheless already audible in the texts we are about to investigate: '*How [do] things grow*'? (CP 7.267, Fn 8 Para 1/2; original emphasis). As we will argue, it is the desire to exhume the metaphysical principle of growth as the 'common root' of final and efficient causation, of thought and the thing, of logo-genesis and cosmo-genesis that energises Peirce's convergence with Plato in the first place. The problem of growth and novelty at the limit is the conceptual spine

of a philosophy of unreason that simultaneously requires and prepares for a conception of the sign as differential and evolving.

Uncovering a Platonic streak in Peirce certainly requires a considerable degree of subtlety as the confluence of the two thinkers is already inflected by what we have deemed to be the latter's post-critical orientation. We could say, of course, that Peirce does not simply return to classical metaphysics but the safety of that statement would be based on the implicit premise that our philosopher accepts the Kantian verdict about classical thought, which is not the case. As we will proceed to show, Peirce is as much of an unconventional reader of Kant as he is of Plato. Nowhere do we find in Peirce the association of the doctrine of Ideas with its classical acceptance as a rarefied noumenal realm separate from the world of appearances. Through a topological reading of Plato, he will re-evaluate the Idea as the generative junction where Nature expresses itself in signs and will thus recover a sophisticated natural philosophy not as a dogmatic relic to break away from but as a powerful conceptual framework that he re-weaves into his philosophy as cosmic semeiotic. As far as his interaction with the classical thinker is concerned, it would therefore be more accurate to say that he does return to the classical milieu but such return produces a milieu already radically differentiated from the ideal of ratiocination that Kant had accused classical metaphysics of (*CPR* A311/B368). In retracing, then, how the young Peirce approaches the principle of growth and differentiation through Plato we stand to gain further insight into how a philosophy of unconscious signification is simultaneously the reclamation of cosmology from its confinement in epistemology and its evolution into a new, pragmatic way of philosophising.

Keeping in mind the components of Peirce's early cosmology as we have listed them above, our imminent excursion into Peirce's Plato is meant to address both

definitional and methodological concerns. In particular, we will have the chance to shed further light on several of the aspects we have brought up in the first part. We will show how the notion of germinal continuity and insistency dovetails with the Platonic treatment of the Idea as ‘junction’ evident in *The Republic*, *Timeaus* and *Philebus*. We will also see that Peirce’s idiosyncratic usage of ‘Logic’ is articulated in conjunction with what will henceforth be argued to be a properly metaphysicalised Logos no different than metaphysical matter; and the distribution of the faculties along the lines of cosmic impulses. What these early texts show, and what we argue to be Peirce’s enduring philosophical orientation, is the reconstruction of the problem of transcendental constitution by means of a cosmologic of relations that aims to ease the impossibilities prescribed by Kant for an adequate conception of the genesis of Nature. To be sure, Kant had aspired in the *Metaphysical Grounds of Natural Science* in 1786 to account for a dynamic conception of matter in terms of the attraction and repulsion of forces ([1786] 2004, 33-74). Yet the step toward a genetic account of nature that such an account could have led to had been thwarted by the critical philosopher’s insistence on securing the conditions of possibility for material phenomena. As we have been stressing all along, the metaphysical principle of natural growth, which could have grounded the genesis of things and of thought without recourse to the transcendental safety of deductive reason, had not been thought for itself. For Peirce, who would tackle the issue of possibility mathematically as well as philosophically, it remained clear that where the thought of prior conditions takes over, real growth and novelty is not an option. Without indeterminism becoming a real metaphysical category, the physio-logical unconscious stream of creation could never acquire a positive significance.

It is this latter path, blocked by Kant, that classical metaphysics opens up for Peirce. As we will argue in the chapters to follow, through his twist on the Platonic suprasensible, Peirce will simultaneously put forth an understanding of Platonic philosophy in terms of what we would call a metaphysics of feeling and he will re-ground the elements of the transcendental apparatus on the cosmologic of such metaphysical experience. By tapping into the resources of a different Platonism, he will take on the challenge of re-articulating the relations implied by a *topos* that is here and now yet irreducible to the here and now, all the while retaining the basic insight of the critical project about the unwarranted reach of a metaphysical reason when the latter presumes to logically deduce the existence of the cosmos. The honing of these relations, which we consider to anticipate and support the Logic of Relatives of 1870, will express the double movement of Nature as signifying and signified, cosmos and chaos, unconsciousness and consciousness, experimental and evolving. ‘*Phusis*’, as Peirce explains in his translation of the *Cratylus* from the original, is to be recovered on the side of creative growth as its root ‘*phuo*’ clearly indicates (*R MS1161*).<sup>80</sup> Accordingly, the wondrous creation of every-thing, including the material world, is no longer to be lost in deterministic accounts of nature but to be considered as the supreme manifestation of the generative force that is simultaneously the motor power and the purpose of natural signification and that gives the Peircean doctrine its name, as a whole – Love (*CP* 6.102-305). As we will argue, signifying Love qualifies pragmatist philosophy as Agapism and the logic of Agapism is a logic of expression.

It is the step by step recovery of the amorous impulse of a self-expressive Nature – which makes the bond between Peircean thought and classical philosophy all

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<sup>80</sup> This reference to the Robin Catalogue is borrowed from o’Hara (2005, 152).

the more obvious – that the second part of this study will pursue. Having already found evidence of the connection between Love and growth in Peirce’s very first attempts to systematise his philosophy in the ‘I, Thou, It’ table of the categories of thought and nature in 1857, we will proceed to see how the connection flourishes to subtend the progressive movement toward the construction of a shifting and differential metaphysical ground beyond the self-limitation and self-sufficiency of reason. We will see how Love, variably conceptualised as Thou, purposiveness, or Thirdness – that most enigmatic category in the Peircean *oeuvre*, assists the development of an open, hyperbolic and properly speculative philosophy whereby the construction of Images is refashioned as the *experiential* or *intuitive* and hence extra-logical and extra-reflexive construction of signs. And, in accordance with the argument we put forward in the previous part, we will argue that the first correlate and consequence of such construction is the preparation for a post-critical metaphysics that follows the direction of what we have called a metaphysical or superior empiricism. With regard to such superior experience, we will see that the next major consequence is the permanent disengagement of the sign from agreement. Defined as the site of Nature’s auto-constitution, or as an experiential multiplicity of impulses, the sign is not simply *of* something but it *is* something. In this sense, the sign – be it a symbol, an index, or an icon – is not a mere ‘shell’ of the thing, as we saw Kant to describe, in need of referring to a suprasensible ideal focus or thing in itself beyond it for consistency. As we have seen, Peirce does require a suprasensible layer but this is not the layer of noumena. Rather, it is the experiential ground of signification that the sign necessarily involves. From this perspective, our philosopher will be able to claim that all is phenomenon and ‘all is sign’ – even the consciousness that was hitherto supposed to produce them.

It is worth lingering for a while on this last statement if only because it allows us to contextualise Peirce's endeavor in relation to another crisis, besides the crisis of reason, that begins to take shape in his time – namely, the crisis of psychologism. As we will see, Peirce's reconfiguration of the sign in superior empirical terms will be confronted with the crude empiricism of a nascent discipline that purports to be able to separate inner and outer, idea and matter, logic and experience, consciousness and thing, immediacy and mediation or representation.<sup>81</sup> Against this series of false distinctions, which will reenact from a much less learned perspective than critical philosophy the ideal of thought as purely formal in nature, Peirce's 'all is sign' will make it very difficult to draw a hard line between thing and thought. The dualisms of empirical psychology will be bypassed through a triadic logic of junction that transforms the concept of representation into that of 'interpretation' – namely, that relation whereby something is transformed into something else for someone or something else, or, to use Peirce's words, that relation whereby something is brought to stand *to* something *for* something else (W1 MS105 1865, 257).<sup>82</sup> Defined as that triadic relationship where a sign, its object and its interpretant are *conjoined*, interpretation, in its deceptive simplicity, transforms representation because it embodies what agreement cannot. First of all, its power is not re-presentative but rather transformational and expansive (an interpreted something acquires novel value for

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<sup>81</sup> Almost all of his extant writings on logic from 1865 to 1879 contain references to the fallacies of psychology and insist on the unpsychological nature of Peirce's semeiotic logic. See, for example, 'An Unpsychological View of Logic to which are appended some application of the theory to Psychology and other subjects' (W1 MS109 1865, 305-321)

<sup>82</sup> In yet another instance Peirce defines interpretation as a 'mediating representation which represents [a] relate as standing for a correlate with which the mediating representation is itself in relation' (W1 MS133 1866, 523). As we will proceed to show, the usage of term 'representation' is drastically different from the classical dualistic acceptations of it as agreement between subject and object and should therefore not be seen as an instance of inconsistency in Peirce's treatment of it. From Peirce's point of view, such a conception of representation fails to comprehend the transformative potential mediation as the junction of three distinct elements – namely, the sign, the object and the interpretant.

something else). Second, interpretation does not necessitate that the interpretant be a 'subject'. In the logic of junction the subject is merely a component and, if 'all is sign', then the subject is by definition interpretable by any other sign and is therefore not an invariant *a priori* formal source of consistency. Finally, by virtue of signs being interpretable by others *ad infinitum*, it follows that the sign carries a significance beyond its immediate *content*, or what it is supposed to mediate – this significance, as we will see, is precisely its 'involution' and 'evolution' of unconscious experience deemed superior exactly because it is generative of reality (*CP* 1.493). In other words, what the psychologistic model of agreement cannot comprehend is the fact that the sign grows, that is is first and foremost a metaphysical junction of transmutation where the universe expresses itself in signs. As a concept, then, interpretation is specifically tailored to express the metaphysical activity of the suprasensible unconscious in signification that empirical psychology suppresses. The gist of Peirce's pragmatic superior empiricism is a profound refusal to succumb to the psychological 'image of thought', to use a Deleuzian expression ([1968] 1994, 129). As we will see, if psychology is to survive the test of pragmatism, it will have to be transformed and allocated a place in a much larger cosmic order of things.

We may briefly note that, in resisting psychologism Peirce will join, from a distance and in his own unique way, those voices in the continent that will also oppose the propositions of that particular image of thought. In a way, the corollary of the thesis 'all is sign', which by the mature formulation of pragmatism is compressed in the maxim 'all thought is sign, all thought is of signs' (*CP* 5.253), seems to combine the Bergsonian maxim 'all consciousness *is* something' and the Husserlian maxim 'all consciousness is consciousness *of* something', as Deleuze succinctly puts it ([1983] 1986, 58; original emphasis). Of course, as there is no direct dialogue between Peirce

and these thinkers, one has to be careful, and especially with regard to the latter. On the one hand, ‘all thought is *of* signs’ can be said to entail the same securing of consciousness in the living present or the world of things as Husserl’s maxim does. In other words, Peirce seems to agree with the idea that the groundedness of consciousness in the perceptual field is the ground in which the ego does not participate but upon which it relies for its constitution, as Husserl might put it ([1931] 1991, 117). Yet interpretation does not allow for the notion that intuition is organised by the intentional variation of a consciousness free to traverse intuited essences of things until it grasps in them invariant conceptual patterns. In other words, intuition, which for Peirce is not to be confused with perception in the first place, is not the secondary function of a paradoxically situated yet disengaged intentional consciousness on its way to its own constitution through the establishment of concepts – or, ‘eidetic’ universals (Husserl, [1929] 1978, 219). Interpretation never implies the freeing of consciousness from the actual through the imposition of universals from the outside. As an expression of the power of the unconscious, to interpret is to be swept by and allow for the spontaneous generation of patterns called ‘signs’ within an experiential field that already contains in it the signs whether conceptual or not that make sense of it. That ‘thought is *of* signs’ does not mean that the thing or the sign (since there is no essential distinction between the two) is given *to* consciousness (Husserl [1931] 1991, 99). For Husserl the constitution of the ego is phenomenological while for Peirce – to simultaneously introduce and explain a term he is famous for – it is ‘phaneroscopic’.<sup>83</sup> Phaneroscopy is precisely the study of appearances as inherently

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<sup>83</sup> For an interesting intersection between Husserlian and Peircean thought, see Joseph Ransdell’s ‘Peirce est-il un phénoménologue?’ (1989). Reading into Husserl’s affiliation with Cartesian philosophy, Ransdell takes care to separate the latter’s concept of representation and intentionality from the Peircean notion that one does not “[read] meanings into” the signs but

and actively significant and as such a study it draws on and seeks to articulate a kind of experience close to the capacity of an intuition that is also intellectual, to use Kantian terms, in its capacity to generate differential patterns in experience and think them at the same time.<sup>84</sup>

The above reading of interpretation, which we will examine in itself in greater detail when we reach the fourth chapter of this thesis, finally brings us to the second connection we attempted to make this time the one between Peirce and Bergson. Again, we will not be dwelling on the connection extensively. However, we do consider Peirce's maxim 'all thought *is* sign' to resonate with the latter's notion of all consciousness *being* something, or 'all thought [being] a movement', as Bergson puts it ([1896] 1988, 125), in that none of the two lines of thought seek to overcome the dualisms of empirical psychology by anchoring the free variation of consciousness in a field of experience à la phenomenology. Instead, both seem to converge on the notion that the differentiation of consciousness, which is no different from any other thing or sign, needs to be traced to the differentiation of nature manifest in intuition as the metaphysical site of this differentiation. If conscious thought is able to establish those enduring structures that we call concepts amidst the overwhelming variation of the worlds, it is because this activity is already part of 'Life', as Bergson puts it ([1907]

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[perceives] the actualizations of the generating powers of the signs themselves'. (The English translation is the author's and can be found on his website, which we provide in the Bibliography). In general, we agree with the latter that if phenomenology were to take the direction of phaneroscopy it might no longer recognise itself as such.

In this thesis, the outlook of phaneroscopy as the metaphysical study or as the 'logical analysis', to use Peirce's words (*CP* 8.305), of the phenomenon as sign will be covered by the general discussion of his semeiotic cosmology and will thus be a secondary current in our investigation, appearing mostly in the footnotes.

<sup>84</sup> Notice the difference in the passive and active voice involved in the terms 'phenomenon' and 'phaneron', respectively. In our view, Peirce opts for the latter to confer precisely the power of what appears to express its own significance but involving in it the potential to generate the concepts that understand appearances as an experiential field. For the sake of exposition, we will be using the conventional term 'phenomenon' after reclaiming it from the transcendentalist premises of its articulation.

1998, *xiii*). In other words, we find that for both philosophers the process that enables the genesis of concepts is the same as that which enable the genesis of phenomena – or phanera – which already contain in them the potential to express themselves in a concept that grasps them as phenomena. Against empirical psychology, Bergson will argue for the necessity of looking at ‘experience at its source, or rather above the decisive *turn* where [...] it becomes properly *human* experience’ (Bergson, [1896] 1988, 184; original emphasis). To revert to Peirce, this is the ability of Nature to signify itself, or to express its own sense, in the un-conscious experiential junction of interpretation which, as we will see, answers our question about Peirce’s particular usage of Logic by qualifying it as logic of junction or a logic of expression.

Peirce’s response to psychologism in superior empirical terms is simultaneously a conceptual and a practical matter. To think in extra-reflexive terms is *ipso facto* to philosophise differently. In the analysis to follow, we will show that the movement guiding Peirce and animating his thought always refracts the sway of a Logic that is specific to the unconscious and that has discriminatory power over the claims of formal logicism. But we can already see that the effect of interpretation as the logic of unconscious semeiosis is such that it induces a wholesale rethinking of the power of deductive and inductive reason and a reclamation of thought on the side of hypothesis or ‘abduction’, in Peirce’s words, as the experimental mode of thinking *par excellence*. To think abductively is to inhabit the movement – the hyperbolic movement – of signs felt in the excess of connections that not only exceed the determination of the ‘I’ but form that complex of relations without which the ‘I itself cannot even begin to materialise. Operating at the limit of conscious cognition, hypothesis is not simply what vitalises the evolution of creative thought but what is at the heart of the genesis of the sign. Testifying to the facticity of the unconscious,

abduction is, as Peirce will say, not *about* facts but that operation, that insightful junction, that constructs or ‘gives us our facts’ (*W1 MS106* 1865, 283). In other words, by interpreting from sign to sign, by inferring from fact to fact, abduction introduces that vital element of differentiation or transmutation in Nature in terms of which the interpreted sign-facts become different in kind from their premises (*CP* 2.642). As we will argue, this is where the source of novelty in the universe lies for Peirce.

The facticity of the unconscious felt and constructed in abduction opens up the path to understanding how the cosmo-logical method evolves into a pragmatic way of philosophising. As we will proceed to demonstrate, pragmatism is defined as the experimentation with the living consequences of our thought precisely insofar as the philosopher as experimenter allows herself to be abducted by these consequences before deducing them. This, in our view, is what makes pragmatism a *practice* of thought, a meeting of the speculative and the practical upon the common ground of experimentation. It is on this aspect of Peirce’s philosophical method that Plato will make another interesting appearance for we often find Peirce to compare his method to the Socratic dialectic (*CP* 5.406). Of course, we will find that Peirce’s logical practice is dialectical in very unusual terms. Exposing experience and growth at the heart of the Platonic philosophy comes with the extraction of dialectics from the clutches of intellectual progression and claiming it on the side of pragmatic experimentation with the unthought.

The importance of the reclamation of dialectics on the side of experimentation becomes obvious when evaluating Peirce’s thought as a whole, which reaches its culmination with the doctrine of the Categories subtending the genesis of the sign. To resume the focus of this thesis, which is the situatedness of semeiotics within a post-critical philosophical milieu, this peculiar dialectics is what enables

Peirce to demarcate his pragmatic method from Hegelian dialectics. As we mentioned in the first chapter, with his rationalist progression of sublating contraries in the concept, the latter had circumscribed time, existence, history, and life in the pure predetermined territory of the absolute Idea. For Peirce, Hegel's view, was as effective in accounting for real growth as Kant's. The Hegelian supposition of the return of the Idea unto itself after its externalisation in the world might be articulated from an invaluable metaphysical standpoint ([1831] 2008, 227-228). With Hegel, as well as other post-critical thinkers, the rehabilitation of a self-positing Absolute – which would prove vital for the articulation of a cosmology of semeiosis – had begun. Yet for Peirce the basic problem remained: why would an already logically complete Idea, as Hegel has envisaged it, venture out in nature and history? In a way, Hegel had rendered the genesis of the sign impossible. To anticipate the terminology we will be using in the chapters to follow, Hegel's absolute reflection had rendered interpretation, the very extra-reflexive movement at the heart of semeiosis null. By subsuming the irrefragable existential components that, as we will see, abduct the Idea out of its territory into concrete actualisations (what Peirce terms Secondness), he had rendered the genesis of actual signs unnecessary. For Peirce, the very extra-logical facticity of existence needed to be thought as equal to the logicity of the Idea, demanding the latter to be expressed in and alongside the signs of the world.<sup>85</sup> Real evolution, as the pre-logical generation of signs, remained precisely what absolute reflection could not explain or

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<sup>85</sup> As Peirce puts it, again embodying the spirit of the experimentalist:

By far the most interesting aspect of the history of science, is that it shows how an important department of human thought has been developed from generation to generation, with a view of comparing this growth with the historical development of art, of religion, of politics, and of institutions generally, and not only with historical development but also with the growth of the individual mind, and not only of mind, but of organisms both in their geological succession and in their individual development, and with the formation of worlds, and even with the gradual coming into being and crystallization of the fundamental laws of matter and of mind (*CP* 7.267).

allow space for and what pure thought needed to accept as that which demands to be known and explained because it is already felt in intuition (*CP* 7.511; 8.41).

Of course we are not suggesting that Peirce considers the Hegelian Absolute Idea is unimportant. Throughout his philosophical career, Peirce remained aware not only that of the importance of Hegel's break from Kantian epistemology but that his system contained the hint that the self-launching of the Idea in reality may be read as unconscious or intuitive, as we have seen in the first chapter. And yet, the roots of such intuition remained constricted by a framework that we have seen Peirce to call 'parabolic'. The Hegelian system was seen by Peirce to circle back to its starting point, to not allow differentiation and change and, thus, to be closed to that higher empiricism where he would find a metaphysical intuition as the true ground of the self-evolution of Nature and the answer to the genesis of reason and the question of ends. It is for this reason, as we will see, that Hegel will be characterised by Peirce as a 'seminary philosopher', unwilling to admit in his philosophy the force of the unconscious that makes the process of philosophical thought itself risky (*CP* 8.110). The task of the philosopher *qua* experimenter will therefore be defined as a call to open up to this intuition and it is indeed through this opening through that Peirce will transform the premises of the Hegelian endeavour. In place of a logical process circumscribing the actual process of signification, the Logos will be reclaimed as Nature, as the extra-logical current of creation – this, we will argue, is the supreme result of Peirce's abductive thought as the way of pragmatism and of the cosmos.

This opening up of philosophical thought to intuition in abduction is the aspect that perhaps speaks the loudest in favour of a productive junction between Peirce and Schelling. Respecting the fact that, as we have pointed out, Peirce's commentary on Schelling is even sparser than that on Hegel, the two thinkers

nonetheless intersect remarkably. What for Peirce is abduction, for Schelling is ‘wonder’ as that mode of superior experience that is ecstatic insofar as it makes thought stray from the barren, self-explanatory territory of rationality to experience itself as a source of novelty. In a reference which brings us back to the importance of Plato *via* another route, the great post-critical philosopher writes:

‘The pathos of philosophy is wonder’. The need for wonder is universal to all humans, [and] for this reason they esteem the artist, the poet. A consequence, a merely logical necessity, truly produces a disposition opposed to such an affect. *Only that which comes from the deed of an incomprehensible will generates wonder* (Schelling, [1842] 2007, 53; original emphasis).

Wonder, for Schelling, is completely incapable of producing the apodeictic certainty Kant or Hegel demand, yet in it lies the possibility of novel problems being articulated (*ibid.*, 73). Embodying a deep respect of wonder as a valid method of philosophising – a method which requires no other proof other than that it is moved by the unconscious growth of thought-signs – Peirce’s system hinges on the reconnection between the production of signs and the ‘surprising facts’ of this world (*CP* 7.36).

But there is yet another consequence of the subtle redefinition of intuition in superior empirical terms that will occupy us in the following pages. In our view, Peirce’s transformation of human faculties *via* the exposure of a non-human power within is always already a transformation of the concept of God. Manifest as the constructive power of Nature, intuition is simultaneously the site where *our* part in the infinite operation of creation is felt. This possibility is opened without falling back into the trap of equating the infinite and the finite: God is felt but ‘we’ are not God. God is there from the beginning as unconscious constitutive stream of intuition but can be reduced neither to finite manifestations of this intuition nor to consciousness (*W1 MS78* 1864, 155). In the vast cosmic process of unconscious signification ‘[a human] is a wave, but not a vortex’ (*CP* 1.220). In this sense, we will find Peirce to be

remarkably close to the Spinozist ontotheology of the Substance and its various modes expressed in the *Ethics*. Accordingly, the only theology possible will be an ethical theology where what we would like to call a 'God-Nature' is immanently experienced in the *relations* of its signs. The restoration of the sign to Nature brings with it an experience of God *in* the production of signs – God-Nature, for Peirce, is felt in what it *does* in signification through us but also without us. In place of Kant's negative theology and Hegel's ultra-rationalist theism, we therefore have a real middle: the God-Nature of pragmatism is the immanent un-conscious finality of an evolving cosmos inhering in each and every sign – including, as Peirce famously puts it, the human as another yet sign of God's purpose. We therefore arrive pragmatically, by paying attention to our 'instinctive attraction for living facts' (*CP* 5.64), at a natural pantheism and a speculative cosmology where purpose is neither confined to the territory of reason nor is it at war with causality but becomes the principle through which the world converges in the ever-diverging production of signs. As we will see in the final chapter of this thesis, it is in the realisation of this fact and in the exercise of the faculty that comes with such realisation that the evolution of the human hinges.

## Chapter 3: The Practice of Logic

### 1. The Expressive Logos

No science can compare with logic for the smallness of the minds it has  
produced.  
C.S. Peirce (*R* 413, 239)

We ought to begin by considering how logic itself arises  
C.S. Peirce (*CP* 3.154)

As demonstrated in the previous chapters, Peirce's experimentation with the problems of the critical project results into a novel conception of continuity which subtends a notion of intuition as the gateway to a metaphysics of the unconscious. It is now time to see in greater detail what this metaphysical scheme is and how it paves the way toward an open or hyperbolic logic of creative semeiosis. This necessitates that we weave back into the fabric of our discussion the thread of logic. For with the transformation of the internal genesis of the concept into the natural genesis of reason, we are already faced with a peculiar logic that is proper to the operation of the unthought in intuition. First of all, since intuition is done referring to a world of essences and pure forms of space and time, this logic cannot be of a transcendental kind. The unthought does not demand the transcendental deduction of categories since all it 'gives' is prior to the categories. But neither is this logic of a formal kind. As we have seen, with the idiosyncratic conception of intuition as the unthought paradoxical limit between the inner and the outer we are on our way to what would seem as a violation of the law of the excluded middle. Indeed, in Peirce's philosophy, formal logic can only go so far. As a place of potential – which is neither in nor out, neither

body nor mind but their ideal meeting point – the unthought reveals a paradox that in the long run proves to be irresolvable by the calculus of propositions. Our argument is that the unthought in thought challenges the law of identity to such a degree that a deduction of a contradiction in Peircean metaphysics does very little to solve the paradox. In fact, from Peirce's perspective any attempt to reduce the germinal ambivalence of the limit to exclusive binaries would betray not only a profound misunderstanding of his metaphysics but would also be a sign of an unwarranted faith in the validity of formal deduction as the instrument of reason *par excellence*. As we will show, it is because of the inability of formal logic to account for metaphysical speculation that the creation of a new logic of relatives is deemed necessary to account for the relations of the continuous manifold of signs. Chronologically, a full articulation of the logic of relatives does not appear until 1870, almost nine years after the *[Treatise on Metaphysics]*.<sup>86</sup> Yet we have already demonstrated that its seed is already contained in the reworking of the thing in itself. The unthought brings us face to face with a hypothesis that stretches formal logic to a problematic domain exceeding it precisely because it is indifferent to the dichotomy between the matter and the form of thought, between physiological causality and rational finality. With the unthought in thought, we are already faced with a curious reversal of formalism from within, stemming from the disclosure of nature in reason. From this standpoint, formal logic is as much problematised as transcendental logic.

In this context, what would a preliminary definition of Peirce's logic be? If not a logic of essence what exactly is this logic of the unthought? How does it affect the internal relation of the faculties? Where does it leave us in terms of formulating a

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<sup>86</sup> The first outline of such a logic appears in the 'Description of a Notation for the Logic of Relatives, resulting from an Amplification of the Conceptions of Boole's Calculus of Logic' (W2 P52 1870, 359).

properly ‘uncritical transcendentalism’? What happens to his conceptualisation of representation? And how do all the above pave the way toward a cosmic semeiotics? All these questions, which find their common root in the problem of genesis of reason, will define the ramifications of this chapter. Since their answer is inextricable from the possibility of articulating a different concept of subjectivity, it is crucial that we reintroduce the problem of anthropological psychology and Peirce’s early 1865 criticism of it. In doing this, we are merely following his work’s natural trajectory, as his definition of logic is crucially co-articulated with the challenge to a psychological image of thought.

We have already argued in the previous chapters that Peirce’s challenge to psychology has to do with its degeneration into an exacerbated and cruder version of Kantian formalism – exacerbated, because in proposing to uncover the psychological basis of formal thought in general, psychology renders logic secondary and accepts the definition of thought as formal; and cruder, because it is oblivious to its own unacknowledged metaphysical convictions. In fact, it is this form of Kantianism rather than Kant himself that Peirce is more expressly against. For, although there is a connection between Kant’s anthropological orientation and the fallacies of psychologism, at least the critical method presents itself as transcendently logical. Nonetheless, the fact remains that a different conception of the subject, which follows from a genetic articulation of reason, can begin to take shape only by divesting logic – even of a transcendental kind – of its very last psychological traces.

Our philosopher’s response to psychology reflects his conviction that this nascent discipline is a re-enactment of the crisis of reason. Indeed, for Peirce, psychology picks up and reproduces a series of fallacies about subjectivity that leaves us with a theatre of false distinctions. The most important of these distinctions is the

very conceptualisation of the inner and the outer as ‘two distinct chambers’ (*W1 MS94* 1865, 167). This duality is the basis upon which empirical psychology depends to summon the testimony of the ‘introspective I’ according to the authority of which we perceive immediately only our conscious representations. As Gilles Deleuze comments on the same problem, after this distinction is in place, one can easily assign movement to matter and image to consciousness ([1983] 1986, 56-7). Peirce’s metaphysics of the limit or Image in itself as pure movement will not allow for such a distinction. As he makes it clear in his first Harvard Lecture in 1865, what subtends this distinction is the very bifurcation between nature and reason, dressed as a bifurcation between the philosophies of matter and the idea. As he puts it, the failure of materialism consists in its positivist reduction of movement of consciousness to matter; the failure of idealism consists in the subordination of the universe to consciousness. Both, however, agree on the gulf between natural or physical causality and rational finality. However narrow or wide, the boundary between the two remains and every attempt to combine the two causes is led back to an Aristotelian framework of orderly dualistic distinctions. The problem with psychology is that its stance on the distinction between these two forms of causality is a matter of convenience. On the one hand, as a study of psychical phenomena, it is affiliated with idealism and places its faith in the evidence provided by the mediating ‘I’. But insofar as it also poses as a science, psychology affiliates itself with materialism by claiming to be able to localise mental functions in the brain (*CP* 7.363-7.365). Hovering between the determinism of natural causality and the finality of rational introspection, psychology shuts out unconscious activity and does not explain the localisation of something psychical onto something material. Accordingly, the sign remains the province of a signifying subject that is obscurely reduced to some material state.

It is easy to see that the conceptualisation of the Image as germinal limit is an attempt to return the sign to an inherently meaningful and living nature both against Kant and against psychology. For Peirce, the psychological reduction of mental acts to matter showcases the immaturity of a discipline that, in remaining equally stuck within a Euclidean model of thought and a false concept of continuity, is under the impression that the science of dynamics can offer a hard and fast answer to the problem of mental phenomena arising out of dead matter. Of course, it is not to be denied that brain-matter plays a vital role in the mental process.<sup>87</sup> Nonetheless, localisation only makes sense within a topological framework of insistency – it is not to be confused with situatedness at one determinate point in a given instant. As Peirce puts it, '[it] is localisation in a sense in which a thing may be in two places at once' (*CP* 7.336). This is merely a restatement of the thesis we encountered in the previous chapter that a phenomenon or an idea insists throughout its immediate neighbourhood or open interval and may therefore be said to insist throughout a larger pattern or manifold (or

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<sup>87</sup> Peirce is known to have investigated the physiological aspect of cognition in his experiments with his student Joseph Jastrow, with whom he published the results 'On Slight Differences of Sensation' in the *Memoirs of the National Academy of Sciences* (W5 1885, 122-135). Designed to test the assumptions of famous psychologist Gustav T. Fechner about the correlation of psychical and physical phenomena (Fechner [1860] 1966), these photometric experiments set out to explore whether the latter's minimal differences in sensation (*Unterschiedsschwelle*) are of any psychic importance – in other words, whether an infinitesimal increase in a given stimulus warrants the assumption that its corresponding sensation may be *measured* as greater than what it was before the increase. Peirce and Jastrow's experiments evaluate Fechner's psychophysical identity negatively as the evidence of sensation, upon which the experimenter relies to make the measurements, is fundamentally unreliable: first because sensation is introspection or inference and not immediate as it is falsely supposed by the empirical psychologist; and second because sensation cannot be unproblematically considered as a physical quantity. The latter view violates what we have seen to be the case for Peirce in the previous chapter – namely, that the infinitesimal is an intensive and unrecognised change in quality and as such, it cannot function as empirical evidence of the reducibility of mind to matter. The relationship between the two can only be accounted in metaphysical terms and Peirce's objective idealist conclusion that 'matter is effete mind' (*CP* 6.25) can only be seen as a total transformation of Fechner's psychophysical identity as this 'identity' is, in fact, secondary to the self-differentiation of Nature. For an interesting and informative account of psychophysics, with a view on Fechner's metaphysical inclinations as well as a commentary on Peirce, see Heidelberger ([1993] 2004, 260-270).

throughout Nature as a whole) although in different degrees. Thought is therefore as localised in the brain as on the ‘pen and inkstand’ that enables one to write down that thought. We see here that the very topological thinking that opens up the understanding of spatiality and temporality as a continuous manifold extends to the neighbouring relations not simply between phenomena of the same kind but also between phenomena of a different kind – psychical and physical. In other words, Peirce employs the affordances of continuity to think across dimensions (if we were to visualise them in this way) to claim that ‘the inkstand and the brain-lobe have the same general relation to the functions of the mind’ (*CP* 7.367).<sup>88</sup>

The same argument extends to logic, which can no longer be taken to derive from ‘operations of the understanding, acts of the mind, or facts of the intellect’ (*W1 MS94* 1865, 164). Logical forms do not have an exclusive relation either to the brain or to the human; they belong as much to a syllogism written on a blackboard as to the consciousness that may or may not interpret it as logical. For the syllogism forces upon the interpreter a certain logical character, a certain number and link of logical steps, that remain the same no matter when and by whom it is read; ‘[it] does not belong to thought, *peculiarly*’ but is ‘already realised in the symbol’ itself (*ibid.*, 164-5; original emphasis). Logical character is therefore not an unproblematically immediate or inner affair. To repeat the point we have made in the previous chapter, the separation

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<sup>88</sup> The quote continues:

The early students of electricity, who assumed that an electrical current resides in the metallic circuit, had infinitely more reason for their mistaken opinion. Yes, without exaggeration, infinitely more; for the ratio of something to nothing is infinite. I admit that the notion that phenomena of consciousness are the objects of psychology has caused a disproportionate development of certain departments, and has caused other departments to be much neglected. Nevertheless, I hold my ground. For if psychology were restricted to phenomena of consciousness, the establishment of mental associations, the taking of habits, which is the very market-place of psychology, would be outside its boulevards. To say of such departments of psychology, — from every point of view, the most essential parts of it, — that they are studies of consciousness, is as if the ichthyologist were to define his science as a study of water (*CP* 7.367).

of the inner and the outer is not immediate but the product of a conscious comparison that somehow implies that one already knows that the inner is not the outer. The representation of the distinction itself is a mediate judgment and not proof of the immediacy of an 'I' free to intuit logic as an internal operation. The consistent unity of the 'I' is at best an inference of thought that cannot be described as ours; for it is rather the case that, since 'it belongs to the judgments of all mankind', we belong to it instead of it belonging to us (*ibid.*, 167). The world of the immediate, which is the world of intuition properly understood as the unthought, 'is not a world of self but of instances [or infinitesimal intervals] of self' and this world, which feeling alone discloses, cannot be separated 'into two parts one of which is in space and the other not' (*ibid.*, 167). For Peirce, then, our feeling of the inner and the outer needs to be regarded as inevitably 'mixed' (*ibid.*, 168). We find here further support to our argument that Peirce's concern with the Kantian legacy of synthesis is a consistent one from the very beginning as well as a foretaste of his subsequent formulation of differential continuity: the relation between subject and object cannot be crystallised in terms of a transcendental framework of auto-affection. Rather, it is auto-affection itself that needs to be seen in the light of a larger metaphysical framework of the immanent 'affections of ideas' exemplifying the interfiltration of intervals in Nature.

It is at this crucial point, when Peirce clearly articulates the necessity for a non-dualistic metaphysical take on auto-affection, that the circumstances are deemed ripe for a first positive definition of logic in his first 1865 Harvard Lecture. As the relevant excerpt, which is rarely discussed in Peirce scholarship, contains crucial information for our discussion, it would be helpful to quote it in full:

There is a third world, besides the inner and the outer; and all three are coëxtensive and contain every experience.<sup>89</sup> Suppose that we have an experience. That experience has three determinations – three different references to a substratum or substrata, lying behind it and determining it. In the first place, it is a determination of an object external to ourselves – we feel that it is so because it is extended in space. Thereby it is in the external world. In the second place, it is a determination of our own soul, it is our experience; we feel that it is so because it lasts in time. Were it a flash of sensation, there for less than an instant, and then utterly gone from memory, we should not have time to think it ours. But while it lasts, and we reflect upon it, it enters into the internal world. We have now considered experience as a determination of the modifying object and of the modified soul; now, I say, it may be and is naturally regarded as also a determination of an idea of the Universal mind; a pre-existent, archetypal Idea. Arithmetic, the law of number, was before anything to be numbered or any mind to number had been created. It was though it did not exist. It was not a fact nor a thought, but it was an unuttered word. *Ἐν ἀρχῇ ἦν ὁ λόγος*. We feel an experience to be a determination of such an archetypal LOGOS, by virtue of its //depth of tone/logical intension//, and thereby it is in the *logical world*.

Note the great difference between this view and Hegel's. Hegel says, logic is the science of the pure idea. I should describe it as the science of the laws of experience in virtue of its being a determination of the idea, or in other words as the formal science of the logical world.

In this point of view, efforts to ascertain precisely how the intellect works in thinking, – that is to say investigation of internal characteristics – is no more to the purpose which logical writers as such, however vaguely have in view, than would be the investigation of external characteristics.

Some reasons having now been given for adopting the unpsychological conception of the science, let us now seek to make this conception sufficiently distinct to serve for a definition of logic. For this purpose we must bring our *logos* from the abstract to the concrete, from the absolute to the dependent. There is no science of absolutes. The metaphysical logos is no more to us than the metaphysical soul or the metaphysical matter. To the absolute Idea or Logos, the dependent or relative *word* corresponds (W1 MS94 1865, 168-9, original emphasis and upper case).<sup>90</sup>

<sup>89</sup> 'Coëxtensive' is Peirce's original spelling.

<sup>90</sup> As of now, we have only been able to find a part of this excerpt quoted in Murray Murphey's *The Development of Peirce's Philosophy* (1993). Whereas Murphey also detects a connection between Peirce's explanation of the determination of experience and the Kantian problem of auto-affection expressed in the relationship between inner and outer, he reads Peirce's point as essentially repeating the Kantian formulation. He then goes on to argue that this indicates Peirce's elevation of Kant's transcendental unity of apperception to a unity of apperception in the divine mind – Peirce's usage of the 'I' thus becomes a reference to the 'I' of God (1993,

With this dense passage we find ourselves at the original crossroads, where all the concerns we have voiced so far first make their appearance. Under the banner of a distinctly metaphysical problematic, which is clearly genetic in orientation, Peirce puts forth a different notion of space and time, the irrelevance of inner and outer at the limit, the primacy of relative determination (word-Logos), and a concept of the Absolute as the proper *prius* of auto-affection. It is also here that for the first time in his philosophy, Peirce gives us an answer of what logic is: both against psychology and against transcendentalism, logic is tied to the experience of the manifestation of the *archetypal*; more precisely, it is the science of the laws of the expression of the absolute in experience. We will have to leave in indeterminacy how this understanding of logic differentiates Peirce from the Hegelian system until the end of this chapter when the comparison can be made fully. For now, we must understand how this logic foreshadows a metaphysics of continuity and in order to do this we must first uncover what is included in the predicate of the definition – namely, we must understand what it means for experience to be ‘a determination of the archetypal idea’ and what exactly a science of such experience entails.

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89-91). From that point onward Murphey claims that Peirce’s solution to the problem of how the manifold becomes a unified concept *for us*, is found in the fact that the manifold has first found its unity of consistency in God in whose mind sensory data are connected to the pure idea. This, in his view, makes Peirce a rather extreme idealist since the essence of the sign remains an abstract divine idea (*ibid.*) Given the hasty pace of Murphey’s exposition, we consider several points in his argumentation to be rather vague – for instance, it is unclear how Peirce is supposed to apply sensory data, which are the province of the constitutive subject, to God; or, again, it is unclear what happens to the distance Kant had envisaged between infinite and finite intellect and how Peirce deals with it. Yet in the analysis to follow, we show that such a reading neglects the many clues, abundant in Peirce’s early writings, that testify to the fact that he extracts auto-affection from transcendentalism and the Idea from idealism – to the degree that the God is no longer an ideal locus of conceptual consistency unreachable to the subject but the real metaphysically material (hence properly logical) stream of Nature’s auto-constitution of which the subject is merely an expression. This we achieve through the excavation of influences other than Kant operative in Peirce. From this standpoint, we would consider his diagnosis of Peirce as an idealist as misguided.

It is easy to see that even at this early stage the notions of space and time, object and subject, which we have discussed in the previous chapter, are profoundly transformed. The clue to this transformation is evident in the usage of the verb ‘to feel’ as well as in the distribution of the epithets ‘modifying’ and ‘modified’, which apply to the object and the subject respectively. In effect, as Peirce describes the encounter, to feel some thing out there is to be modified by it right here – it is to produce oneself by feeling what one is not or to bestow upon the modifying object as *other* the capacity to assist one’s own auto-affection. On the other hand, in order for the experience of something right here to be felt as one’s own, it needs to be affirmed as passed but not perished. The past *insists* as it moves toward the future. Because of insistency, the ‘I’ may be inferred from past ‘instances of self’ resonating and surviving in the present. Clearly, we do not simply have an object felt by a subject with the aid of *a priori* forms but the outline of a process by which the *object* and the *self* are wielded together in experience in order to give rise to the subject. Apart from the ‘Affections of Ideas’, this precocious conceptualisation of auto-affection will be consolidated thirty-eight years later in 1903 in a letter to William James on the Categories. As Peirce writes, subject and object are born of a ‘*double* consciousness of effort and resistance. That is something which cannot properly be conceived. For to conceive it is to generalize it; and to generalize it is to miss altogether the *hereness* and *nowness* which is its essence’ (CP 8.266; original emphasis).

With the first two determinations of experience, we thus have an additional layer to our previous argument about synthesis: subject and object, inner and outer are continuously determined; such determination presupposes not only experience (or intuition) as the paradoxical limit between them but also the relation between them as the actuality of duality. Foreshadowing Secondness, the mutual

determination of subject and object adds further support to our argument that Peirce's mature conceptualisation of the Categories is inseparable from his early response to the problem of synthesis and auto-affection. However, besides the re-affirmation of this important connection, there is another aspect to this passage that we find of even greater importance. We are referring to the third and most intriguing, in our view, determination of experience, which is characteristically termed as *logical*. The interest in this determination is not simply to be found in its obvious exposition of the fundamentally triadic character of Peirce's philosophy. More importantly, it is to be found in the fact that Thirdness – which is crucial for completing our discussion of the nature of the ideal limit – is surprisingly classical in character. We consider this last determination, put forth as the *junction* of the archetypal and the concrete, to disclose Peirce's indebtedness to a Platonic line of thought whereby a third genus or *topos* is invoked to join two others. Leaving the issue of terminological compatibility between Plato and Peirce aside for the moment, our argument is that Peirce's conception of an experiential junction is indeed reminiscent of the exquisitely elusive structure variably appearing throughout the Platonic dialogues either as the junction of knowledge and the known by the Idea of the Ultimate Good (*Rep.* 6. 507e-508c); as the union of soul and body by the 'place beyond heaven' (*hyperuranius topos*; ὑπερουράνιος τόπος) (*Phaedr.* 247b-c); or as the union of the intelligible and the sensible by a cosmic 'ensouled bond' (ἔμψυχος δεσμός) (*Tim.* 35a). Individual details notwithstanding, the peculiarity and allure of such bonding is precisely that this third binding genus is not itself of the nature of 'essence' or *ousia* and therefore it cannot be said to *be*; however, it is the generative *topos* that is simultaneously different from and beyond the terms it binds and yet permeates them like rays of light. In other words, its value lies in its being immanent in the natures it joins and, as we intend to argue, this is precisely the

aspect that informs the Peircean philosophy of continuity in general and his conception of the third, in particular.

At this stage, we need to address objections that might be raised both from a contextual and a conceptual front. The contextual objection might find its root in the rather commonplace tendency in Peirce scholarship to consider his connection with Plato of lesser importance compared to his admittedly more vocal affiliation to Aristotle.<sup>91</sup> It is certainly true that Peirce acknowledges the Aristotelian vein of his thought quite often, especially as regards the scientific character of inquiry, the logic of the *Organon*, and the value of empirical observation, whereas his references to Plato are less frequent. However, given Peirce's general antipathy to the systematic exposition of his sources, we do not consider this to be posing a special problem. Kant and Aristotle may figure more prominently but it cannot be said that their treatment is more systematic. What we find more important to address, in this case, is rather the conceptual objection the Plato-Peirce encounter might elicit, which has to do with the canonical reception of the theory of Ideas in the history of philosophy. We should

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<sup>91</sup> Even Whitehead, in a letter to Charles Hartshorne, had compared James to Plato and Peirce to Aristotle but without pushing the correspondence too far. As he wrote:

European philosophy has gone dry, and cannot make any worthwhile use of the results of nineteenth century scholarship. It is in chains to the sanctified presuppositions derived from later Greek thought [...] My belief is that the effective founders of the renaissance in American philosophy are Charles Peirce and William James. Of these men, W. J. is the analogue to Plato, and C. P. to Aristotle, though the time-order does not correspond, and the analogy must not be pressed too far' (Whitehead qtd. in Hartshorne 1972, ix).

In a similar manner, we do not mean to suggest that Aristotle should not be taken seriously as one of Peirce's major influences. Our emphasis on Plato is meant to expose some sort of contradiction between the two classical thinkers (which has assumed the proportions of a canon and is, in itself, debatable) but to recover one of those episodes in the formation of Peircean thought that might give us a better idea of how several traditions converged into the articulation of semeiotics. Their differences notwithstanding, Peirce tended to see Aristotle's logic as a useful supplement that could be read alongside Plato's. In the early 1900s, for example, and having embarked upon a study of Plato in Greek, Peirce admits on several occasions that Plato's logic anticipates Aristotle's *Organon*. See Peirce on Plato's development of syllogism in the *Charmides*, MS988; MS434.38 on the development of Plato's logic. For a detailed review of Peirce's treatment of Plato and Aristotle see o'Hara (2005).

make it clear that except for a cross-reading of key aspects of Plato *vis-à-vis* Peirce, we will not attempt to enter the discussion of Plato and Platonism. The reception of Plato, burdened by issues of authorship, translation, theology and other problems, has been well recorded and contested. Let us merely say from the beginning that Peirce is an extraordinary and deep reader of the classical thinker and it is this depth of engagement we have hinted at by claiming an immanentist account of the *topos*. Undoubtedly, there are points of divergence between the two philosophers. However, Peirce traces in Plato's thought a supreme example of a philosophy of triadicity defying the tired separation of Ideas as transcendent Forms from the realm of sensible becomings.<sup>92</sup> As he writes in his lecture 'Philosophy and the Conduct of Life' in 1898: 'Plato's whole philosophy is a philosophy of Thirdness — that is to say, it is a philosophy which attributes everything to an action which rightly analysed has Thirdness for its capital and chief constituent' (*EP2 MS437*, 38). Such acknowledgement comes with a radicalised understanding of the Idea (of the Good) as plastic and potential that, in Peirce's mind, reveals Plato's sophisticated understanding of continuity beyond the clutches of Heraclitean transitoriness and Parmenidean eternity thus opening up the possibility for an evolutionary account, which is what Peirce expresses a sophisticated conception of metaphysical Feeling and Time as generative of difference.<sup>93</sup>

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<sup>92</sup> In this sense, we are tracing another 'bacillus' in Peirce's thought, despite the lack of explicit reference to the classical thinker.

<sup>93</sup> Plato's definitive philosophy', he writes, 'results from the correction of that error of Heraclitus which consisted in holding the Continuous to be Transitory and also from making the Being of the Idea potential' (*EP2 MS437*, 38). Very interesting, in this respect, are his comments from 1902:

If you ask what mode of being is supposed to belong to an idea that is in no mind, the reply will come that undoubtedly the idea must be embodied (or ensouled — it is all one) in order to attain complete being, and that if, at any moment, it should happen that an idea — say that of physical decency — was quite unconceived by any living being, then its mode of being (supposing that it was not altogether dead) would consist precisely in this, namely, that it was about to receive embodiment (or ensoulment) and to work in the world. This would be a mere potential being, a being *in futuro*; but it

We will shortly see that the potentiality of the Idea trickles down to Peirce's reconfiguration of natural philosophy as semeiotic when we see how it contributes to his definition of the sign as the manifestation of a self-evolving Nature. Yet we do not need to stray too far into Peirce's evolutionary cosmology to uncover the sophistication of his interpretation of Plato. The passage on Logic we are currently investigating contains evidence not only that Peirce's reception of Plato is intricate but that it also involves a uniquely semeiotic orientation. We argue that the productive ambivalence of the Platonic *topos*, where the archetypal Idea is suspended in a place neither *below* nor *above* any 'world' but generative of this world, is precisely the aspect that Peirce latches onto to outline a preliminary contour of a properly metaphysical or ideal experience. This experience, as we saw, emerges as the intensive junction, where the potential unuttered variety of the Idea acquires a certain uttered

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would not be the utter nothingness which would befall matter (or spirit) if it were to be deprived of the governance of ideas, and thus were to have no regularity in its action, so that throughout no fraction of a second could it steadily act in any general way. For matter would thus not only not actually exist, but it would not have even a potential existence, since potentiality is an affair of ideas. It would be just downright Nothing.

It so happens that I myself believe in the eternal life of the ideas Truth and Right. I need not, however, insist upon that for my present purpose, and have only spoken of them in order to make my meaning clear. What I do insist upon is not now the infinite vitality of those particular ideas, but that every idea has in some measure, in the same sense that those are supposed to have it in unlimited measure, the power to work out physical and psychical results. They have life, generative life.

[...]I may be asked what I mean by the objects of [a] class deriving their existence from an idea. Do I mean that the idea calls new matter into existence? Certainly not. That would be pure intellectualism, which denies that blind force is an element of experience distinct from rationality [...] (CP 1.218-1.220)

We have quoted this passage in full not only because we consider it as a magnificent sample of Peirce's peculiar Platonism, showcasing his belief in the potentiality of the Idea but also because it anticipates our argument that this potentiality is nonetheless not to be confused with Hegel's logical Idea out of which existence is supposed to derive. The potentiality of Peirce's Idea is never put forth in terms of causal emanation – the Idea works itself in the existential world but does not cause that world. This conceptualisation offers further proof to the comment we made in a previous footnote about Murray Murphey that Peirce's philosophy is not an Idealism, or what in this instance he calls 'intellectualism'. In the sections to follow we will have the chance to refine just what the mode of being of the Idea is in relation to matter and how the two are brought together by means of a cosmology of triadic relations buttressed by what we call – inspired by Peirce – a 'metaphysical' or 'abstract' materialism.

*tone* that is not recognised but merely *felt*. Something is created, an experienced *topos*, sign, or ‘word’ that in its enduring tonality signifies nothing else than its co-emergence or continuity with the potential Logos. It is also from the perspective of this co-emergence that the ‘pre-existence’ of the Logos must be taken *cum grano salis*: the Logos does not ‘exist’ prior to the relative experience for its mode of being is not that of existence anyway. Rather, it is a ‘might be’ which the relative sign must simultaneously engulf and which it cannot exhaust. With this conceptual move, we have a first indication of the involvement of the three categories in experience, an example of which we have previously seen in the case of the infinitesimal limit: an experience is the junction of a First here manifest as potential Logos or archetypal Idea, a Second appearing as actual subject-object or relative word and a Third, which is elusively characterised as the logical world or as the intensity necessary for the passage to occur from the First to the Second.

We have been admittedly much more concise in our exploration of this early manifestation of the categories than Peirce himself. Let us merely note that we will be returning in the next section to tidy up their distribution since it seems as though the Logos assumes the positions both of the First and the Third. Yet we need to conclude this section by saying that we already have the new foundations on which the problems of synthesis must now rest: we are no longer asking how a transcendently created sign is relevant for the manifold of experience but how it is genetically derived from a tripartite experience, intuition, or feeling, as the metaphysical *topos* of signification.<sup>94</sup> Having given a preliminary account of the topological character of experience, we have yet to clarify how this affects the concept of Logic and its

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<sup>94</sup> We will return to this point in the second part of the thesis to flesh out the importance of the *Cratylus* for Peirce’s conception of signification.

scientific status. Nonetheless, so much is clear: by treading upon the metaphysical territory of the *topos*, the young Peirce is already paving the way for the re-grounding of the transcendental apparatus on a speculative philosophy of a cosmic auto-affection which is generative of difference. Such a problematic affords a first intimation of what he means by Logic: neither transcendental nor formal, logic needs to look for its own genesis into the experienced phenomenon. It is a logic of intensive experiential becomings and *qua* intensive, it is the voice of Nature.

## 2. The Formula of Thought and Nature

The metaphysical logos is no more to us than the metaphysical soul or the metaphysical matter.

C.S. Peirce (W1 MS94 1865, 168-9)

In the previous section we argued that the three determinations of experience open up an understanding of auto-affection in terms of a wider logic through which the archetypal is uttered in experience. From this standpoint, experience ceases to be merely receptive and becomes a highly creative place that involves the potential Idea as part of its determination. Insofar as this potential is only *felt*, this determination signifies an unconscious activity that operates beyond and before the strictures of recognition. In other words, we are in the province of a metaphysically understood Feeling as a *thing at the limit* exposing a speculative indifference for the distinction between the real and the ideal or the supposed distance between knower and known. Everything so far seems to suggest that Peirce appropriates the central doctrine of Platonic philosophy according to which, as he notes in his definition of ‘Platonic’ in

1885, the ‘processes of mind and the process of nature are one’ (*CD MS1604*, 4540-1).<sup>95</sup> Raised on the territory of synthesis, this oneness (which, as we will see, is speculative in that it is not to be confused with the Parmenidean identity of thought and being), lies at the root of the possibility of articulating a cosmic process of semeiosis in terms of which the distinctions we encountered in the [*Treatise on Metaphysics*] between *a priori* and *a posteriori*, inner and outer, image in itself and image as representation are only different perspectives of the same ‘metaphysical soul’ or ‘metaphysical matter’.

This latter characterisation of the Logos as a primitive genetic substratum that co-emerges with determinate things should not be taken as an unproblematic return to dogmatism. Quite the contrary, we argue that it is the first step toward the reinterpretation of the Kantian intelligible ground of appearances from a genuinely philosophical point of view that, in reactivating certain aspects of the Platonic philosophy, aims to re-cosmologise the question of knowledge by restoring to Nature the dynamism and finality of sign production. How does Nature speak through Logic and what is this Logic that allows Nature to be heard? By delving into this question a little further, we stand to gain better insight not only in the metaphysical conceptualisation of Feeling but also the degree to which the critical project is transformed into a topologically inspired cosmology of the sign.

Peirce’s engagement with the classical philosophy of the *topos* is evident not simply in the Harvard lectures, where the first commentary on the status of logic first appears, but also in the series of important but rarely examined texts surrounding this first exploration. Partially because of their sketchy character, these manuscripts are sadly dismissed as ‘unpublished juvenilia’ (Fisch qtd. in Perez-Teran Mayorga 2007,

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<sup>95</sup> See *Appendix*.

76). Yet, in our view, their importance lies precisely in the sheer speed with which the critical question of synthesis is clearly articulated as the question of the genesis of consciousness, itself subsumed under the cosmo-logical process through which the archetypal Logos (which must be conceived as having three faces) works itself into experience. The understanding of experience as a *topos* or junction, which we mentioned in the previous section, is most vividly illustrated in the essay ‘The Modus of the IT’, which is composed right before the [*Treatise on Metaphysics*] in 1861. The importance of the text is precisely to be found in the fact that the ‘*modus*’ etymologically puts us on the path of a metaphysical movement. Indeed, the opening question of the essay quickly sets a tone of becoming that unambiguously orients the discussion around a genesis of the concept: ‘how shall sense *become* consciousness?’ (W1 MS66 1861, 47; emphasis added). Without further ado, this question of becoming is answered in terms of a process by which sense, consciousness and abstraction are folded into each other. However, none of the three components are to be taken in their usual acceptance: sense is not sensation; consciousness is not subjectivity; and abstraction is not form. The three elements are rather three worlds that are equally ‘celestial’, each having their unique ‘manifestation’: sense is the world whose heaven is a speck, consciousness is the world whose heaven is extension, and abstraction the world whose heaven is immensity (*ibid.*).

It is easy to discern in the vocabulary of the essay the Platonic undertones. With the characterisation of the three faculties as ‘heavens’, Peirce seems to be staging a cosmological narrative similar to that found in the *Timaeus* or the *Philebus*. What in Plato, for instance, appears as the harmonic composition of the whole Heaven or Cosmos out of the visible and the intelligible or as the mixture of *apeiron* and *peras* by/into the *koinon* (*Tim.* 28a-29d; *Phil.* 23d, 24a, 26d, 30a), in Peirce appears as the

junction of the three ‘Persons’, ‘faculties of the soul’, ‘elements of Thought’ or ‘Impulses’, as we have also encountered them in the table of 1857.<sup>96</sup> To uncover the parallels as well as the differences between the two thinkers, it is worth taking a closer look at the distribution of the faculties. As Peirce explains, ‘that which is in the sensible world can only enter the mental world by having *in it a revelation* which is in the abstract world’ (W1 MS66 1861, 47; emphasis in original). The first thing to note is that sense does not simply contain the abstract. Peirce’s statement is structured around a double inherence: sense contains in it something that is already in what is termed as the ‘abstract’, the significance of which will become clearer as we move on with our analysis. According to this logic of redoubling, that this something is a revelation, as Peirce cryptically asserts, not only qualifies the abstract world itself as a revelation but also implies that the abstract contains in it another revelation that may be *in* and *of* another world. Indeed, the abstract undergoes a further division into another triad of which it is the revelation. By dint of this division, the abstract is more specifically an abstract world of space or dependence. In turn, the latter is the revelation of absoluteness *in* time. In a similar fashion, and as this distribution by redoubled revelation proceeds, there emerges a pattern of nested triads in terms of which the third and most abstract element or reveals itself into the first to give rise to the second element.

The complexity of this fractalised distribution does not stop here. Beyond the challenge of multiplied revelations creating a rather intricate structure, the most demanding aspect of this pattern is the nature of revelation itself as, throughout the essay, Peirce freely alternates between the terms ‘revelation’ and ‘conjunction’ (W1

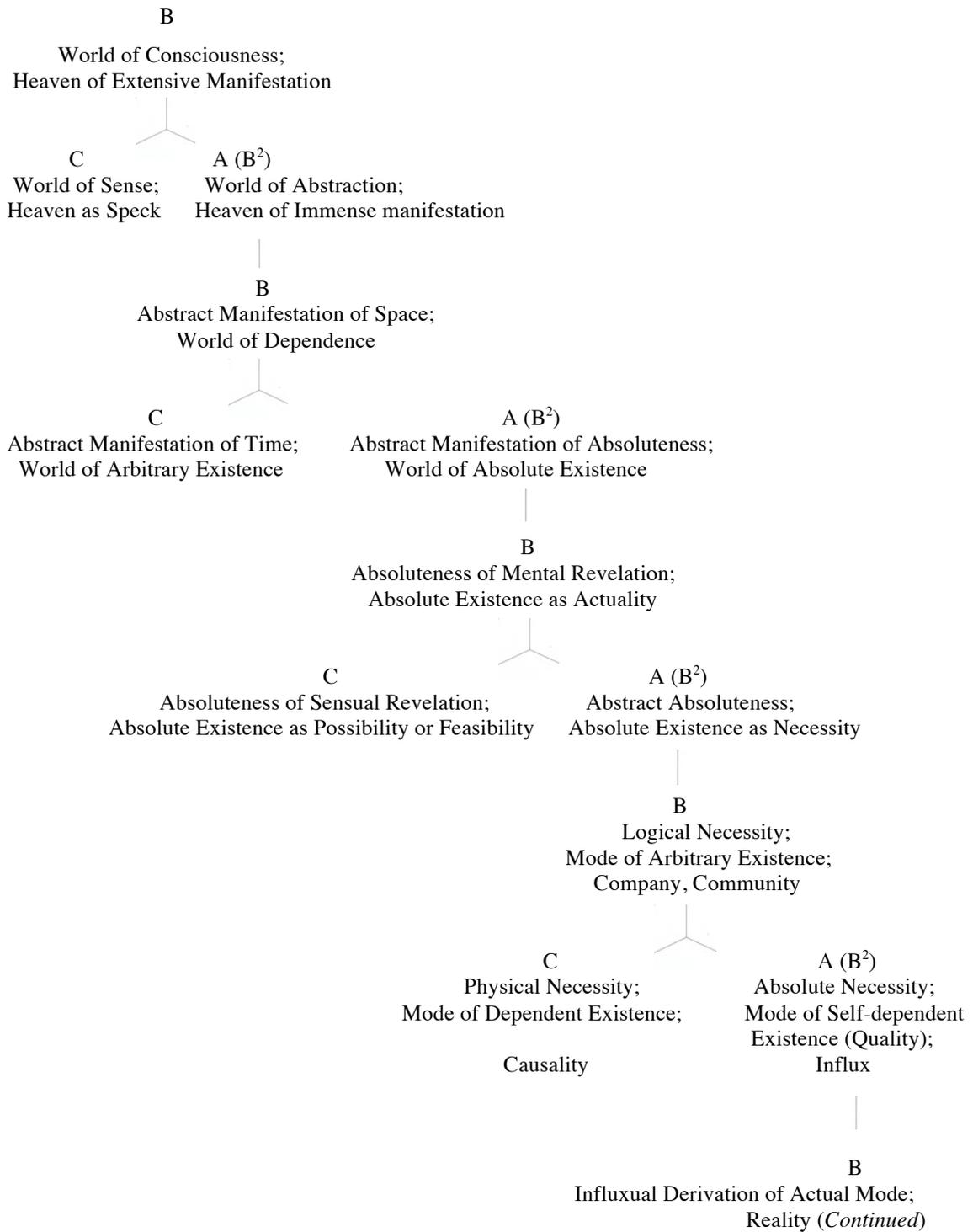
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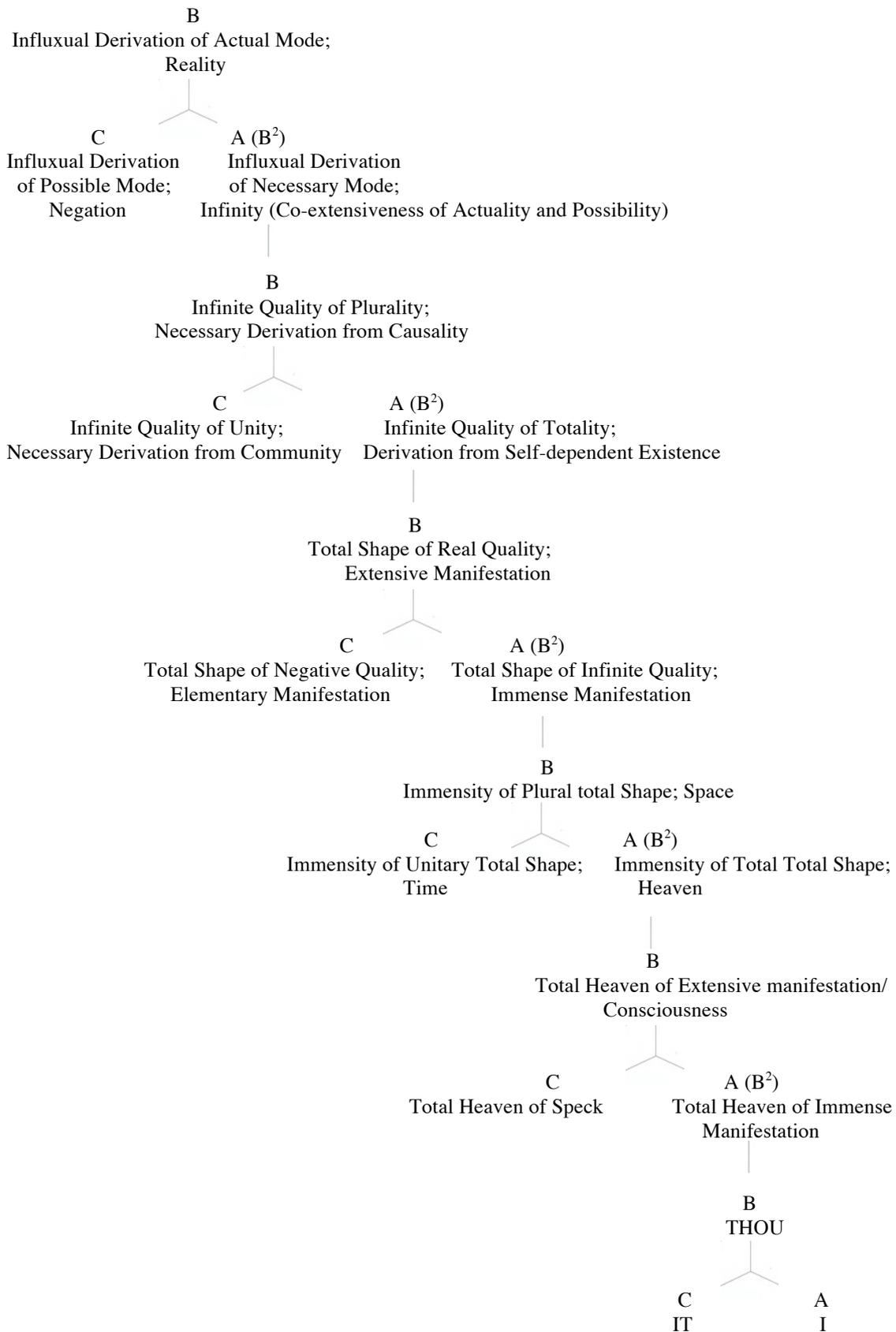
<sup>96</sup> Manuscript 65 in which the discussion of the ‘I, Thou, It’ first appears bears the subtitle: ‘A Book Giving Instruction in some of the Elements of Thought’ (W1 MS65 1861, 45).

MS66 1861, 48). Rephrased accordingly, the statement that ‘sense contains *in it* something that is *in the* abstract’ could read: that which is in the sensible world can only enter the mental world because to the sensible *is joined* something in the abstract world. We are thus presented with what appears to be a very idiosyncratic topological usage of the term ‘revelation’ which brings us face to face with the difficulty of the seemingly incompatible logics of revelation and junction: something that is revealed should not need to be *added to* a thing pre-existent and external to it (sense) – at least not without driving us back to the problem of emanation. If, for example, sense reveals something that is in the abstract, sense would seem to derive or emanate from the abstract. Here, however, we are told that the worlds are distinct. We will see that when pragmatism is fully articulated, the two logics which have deemed incompatible return as the two complementary strands of the same cosmic movement – ultimately involved in junction – of discovery and construction, in terms of which the human simultaneously awakens to the infinite signifying power already existing within and actively cultivates it by taking a part in the creation of signs. It is in this interimplication, which finds its conceptual foundation in the disengagement of the Platonic Idea from eternalism we are currently investigating, that we will therefore find an understanding of the human as sign grounded in and constructive of Nature and, as such, the ethical streak of Peirce’s thought: after the realisation of our place in the cosmic play between revealing and adding, the determining factor for the evolution of the human will be the cultivation our unconscious power of signification.

It is vital for our current discussion to attempt an initial diagram of the rather tortuous relations between the worlds that Peirce invokes. The diagram, the triangulations of which we have reconstructed from Peirce’s original writings, may be read both in top-down and in a bottom-up manner as by the end of it we come back full

circle to the beginning, which is meant to indicate the metaphysical particularity of the power of 'junction'.





**Figure 2:** ‘The Modus of the IT’ (Unfolded Diagram) (W1 MS66 1861, 47-49)

Having diagrammatised the connection of the ‘heavens’, we are now in the position to return to our core problematic of junction and revelation *vis-à-vis* derivation. To unravel the connection between the two, we need to elucidate the final and most abstract triad at the bottom of the diagram as it is in terms of the junction between these three elusive categories that the Platonic influence is most obvious. Peirce’s initial attempt to describe them is as beautiful as it is cryptic: I is ‘simple and sublime’, IT is ‘protean and comic’, THOU is ‘beautiful and pathetic’ (W1 MS65 1861, 45). Despite their pronominal character, the triad has nothing to do with the grammatical order of personal pronouns and their resolution into familiar terms is rather difficult. It is clear, however, that in their distinctness all members are fundamentally relational, thus exemplifying the trait of continuity at the core of Peircean philosophy: ‘THOU is an IT in which there is another I. I looks in, It looks out, Thou looks *through*, out and in again. I outwells, It inflows, Thou commingles. I is self-supported, IT leans on a staff, THOU leans on what it supports’ (*ibid.*, 45; original emphasis). Elsewhere, the ‘I’ is described as the Intellect, ‘THOU’ as the Heart, and ‘IT’ as Sense. But the interesting thing is that apart from their mutual relations the three categories are ultimately ‘incapable of definition’ (*ibid.*, 45). If we were to draw a first parallel with Peirce’s take on the categories, we could correlate I with Firstness, It with Secondness and Thou with Thirdness as it is the middle node or the product in the trifurcation.

At this stage, the relationship between the categories is admittedly puzzling. Yet it allows us to note that while the middle element appears to be the product of the junction, it is nonetheless described as irreducible to its components. To express this irreducibility, Peirce summons an example from arithmetic: the second or middle term is not ‘1+3 [...] just as in arithmetic 7 results from 3 *and* 4, though not the same as three *with* four’ (W1 MS21 1857, 15; added emphasis). At the point of the junction we

thus have a new thing, which is the very ‘*and*’ paradoxically introduced by the union while enabling that union at the same time. In other words, we are presented with a sum or whole that is more than its parts. The nature of the THOU as ‘I and IT’ implies that contrary to the merger implied by the dualistic logic of the ‘*with*’, Peirce is already flirting with a topo-logic of the ‘*and*’ posing as a fundamentally triadic logic of novelty. We do not begin with two things to come up with a third that is isomorphic, identical or equal to its components (as, for example, the equation ‘THOU = I + IT’ would imply). Rather, we begin with three elements that are distinct, irreducible, and non-sublatable yet whose middle term is both what is introduced in the triad and what becomes part of it as a novel element; and while none of these worlds can ‘be expressed in terms of each other’, they are continuous with each other and may enter in variable relations. For example, ‘IT may even become I – in Pantheism’ or ‘THOU may become I – in Love’ (W1 MS65 1861, 47).<sup>97</sup> In fact, each element may only be seen from the perspective of the other two.

The full importance of pantheism and Love will become obvious in the final chapter when we take up the consequences of these early formulations for Peirce’s mature formulation of the Categories. We have taken our time over these complex formulations because it is here that we find Peirce’s indebtedness to the Platonic philosophy of the *topos* to be most prominent. The parallels between Plato’s

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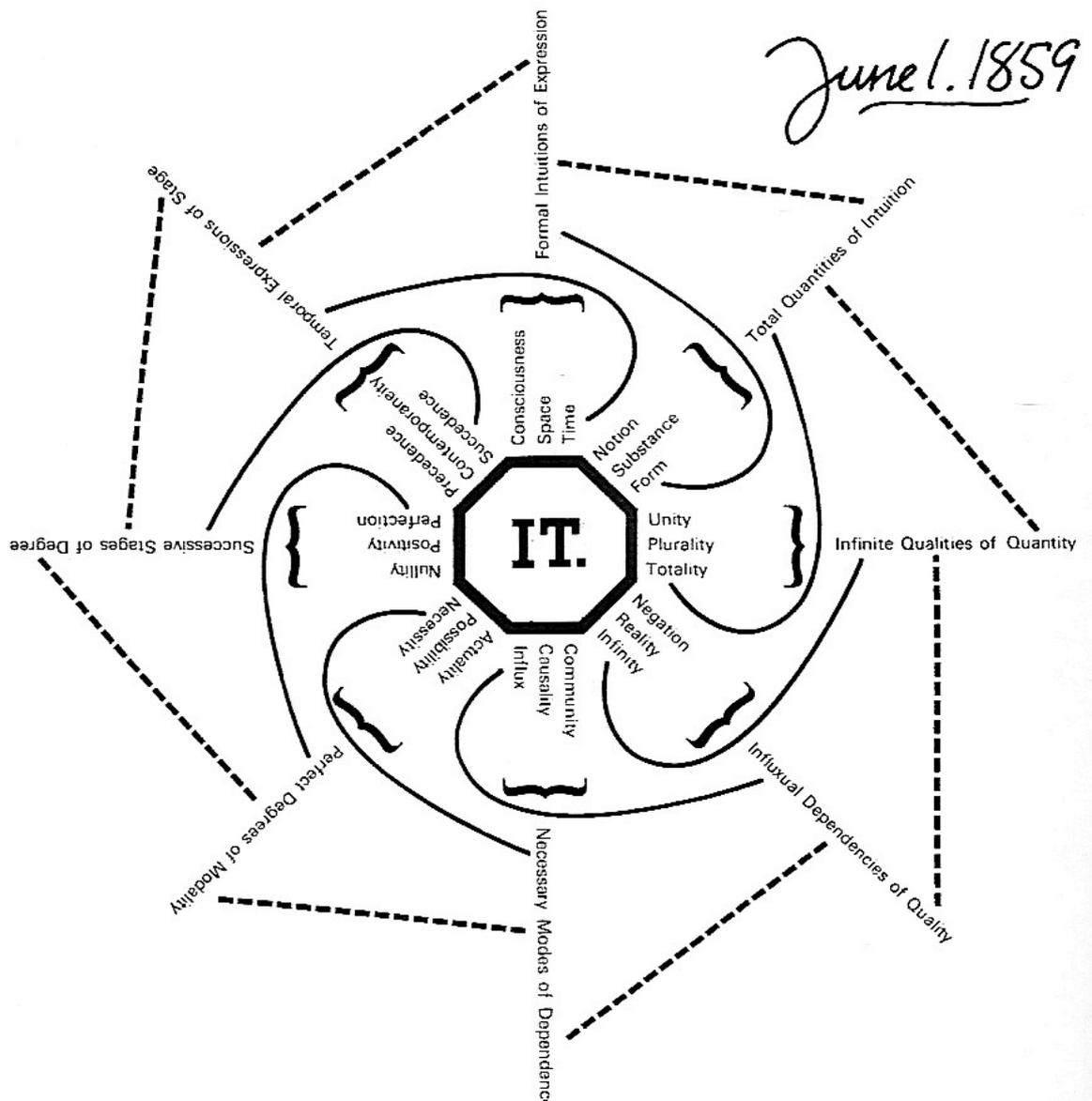
<sup>97</sup> As Peirce writes:

The Three Persons have nothing in common. True the I may be IT - as when we think of ourselves objectively. The IT may become THOU – in apostrophe. The THOU may become IT – in cruelty or rather hardness. The IT may even become I – in Pantheism. The THOU may become I – in Love. Or the I become THOU. Yet in all the cases. The IT of the I contains nothing which either the I of the I contains, nor which the THOU of the I contains. Nor have these anything in common with each other. The THOU of the IT contains nothing which either the IT of the IT contains, nor which the I of the IT contains. Nor have these anything in common with each other. The IT of the THOU contains nothing which either the THOU of the THOU contains or which the I of the THOU contains; nor have these anything in common with each other. The I, the IT, and the THOU are therefore in Three different worlds (W1 MS65 1861, 45-6).

middle and late metaphysics and Peirce's early attempts are indeed striking. In the complex admixture of two natures (I, It) by means of a third (Thou) partaking of both, we may readily recognise the classical account of 'mixtures' (finding its most sophisticated expression in the *Philebus*) in terms of the junction of two elements that would be impossible to relate were it not for a third particular genus or nature whose particularity is that it neither 'is' nor 'becomes' but paradoxically generates and presupposes the elements it joins. We may recall here, for example, Plato's enigmatic account of the bond between vision and the visible things by means of *Helios* as the source of light, which although is neither *ousia* nor *genesis* in itself nonetheless aids the becoming of vision and the visible things as 'helioid' (*ἡλιοειδῆ*) and comprising a visible *topos* (*Rep.* 507e-509a). Or we may invoke the even more complicated analogy of the Idea of the Good, which is again not *ousia* nor *genesis* but is meant to by its nature (*ιδίᾳ ἐπ' αὐτὸ τοῦτο πεφυκός*) to bind knowledge and the known things as the *noeta genera* (*νοητὰ γένη*) that are good in kind (*ἀγαθοειδῆ*) into a *noetos topos* (*ibid.* 509a-d). Setting aside the implications for the familiar separation of being and becoming and the transcendence of the Forms for the moment, we can see that in the same way that Plato makes the respective three elements into 'real substances' – so to speak – out of which the world is composed so Peirce grants his categories the same plastic qualities so that they may be mixed with one another (through without the theological overtones of a *Demiurgos*). With Peirce, however, we can see with greater clarity that the immanence of the third element in the other two extends to all the categories which are locked within each other. A First may be abstractly taken as 1, a Second as a 1/2, and a Third as a 1/2/3 thus implying some sort of hierarchy (*W1 MS130* 1866, 476). However, in reality the elements are conceivable only in terms of what appears to be a syndesmotiic triadic immanence of the categories to each other.

Strictly speaking, a pure First and a pure Second without a Third do not make sense. All categories are relatively determined; they are immersed into the inescapable and irreducible triadic relation while retaining their metaphysical independence.

That the categories operate and are to be conceived dynamically is evident in Peirce's own 1859 depiction of the diagram of the 'It', which we are reproducing below:



**Figure 3:** The Diagram of the IT (folded diagram) (W1 MS52 1859, 530)

The faces of the octagon that comprise the 'It' result by bending the spine of the trifurcations of the unfolded diagram into a circle (what we have denoted as 'C'). Although there is no explicit reference to the other two categories, it may be said that the 'It' is relatively determined by being contrasted with its outside as first or 'I' and the boundary between them generated by so many lines as thirds or 'Thous'. Such schematisation is admittedly complex but we consider it to be one of the most telling instances of the nature of the junction as cosmogenetic, foreshadowing what Peirce will later call 'the ovum of the universe' (*CP* 6.204). Contrary to Murray Murphey, who has taken it as a 'merry-go-round' showcasing academic immaturity (1993, 49), we find the diagram valuable because it affords a glimpse into the logic of reduplication (denoted in the unfolded diagram as 'A/B<sup>2</sup>') in terms of which the middle or third term is continuous with the two and yet enters novel relations as a First.<sup>98</sup> This sort of mobility sheds some light to our previously mentioned problem of the Logos appearing both as a First and as a Third and we will turn to the details of this particularity shortly but, ultimately, the problem boils down to the fact that there is and can be no neat conceptualisation of the categories. After all, Peirce's diagram is no mere circle but a hyperboloidal dynamic structure, a moving vortex where the central octagonal boundary (depicted as the crystallised 'Thou' lines) may extend to and recede from the edges (depicted as the more fluid 'Thou' lines), thus showcasing the impossibility of a clean separation between the 'internal' and 'external' components or, in our case, between the 'I' and the 'It'.

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<sup>98</sup> Again, Murphey's discussion of this early period in Peirce's philosophy is one of the very few Peirce studies as a whole has to offer. Although he makes interesting connections between Peirce's categories with Kant and Aristotle's, his analysis nonetheless presents this classification as a take on the theory of knowledge, thus obscuring the metaphysical orientation which we argue to be at the core of Peirce's early endeavours (Murphey 1993, 49).

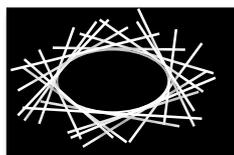
Again, an absolute intellect or ‘I’ and an absolute sense or ‘It’ do not exist. Instead of two inexpressible and unconnected absolutes, we have a middle locus where a hyperbolic movement of growth actively relates a spontaneous or first ‘I’ and an actual or second ‘It’ through the construction and resolution of habitual patterns.<sup>99</sup>

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<sup>99</sup> It seems to us that a different version of the diagram, incorporating our previous discussion about the curvature of the limit, appears in a series of essays written in 1898, when the categories are more clearly expressed as Firstness, Secondness, and Thirdness. Peirce writes:

All that I have been saying about the beginnings of creation seems wildly confused enough. Now let me give you such slight indication, as brevity permits, of the clue to which I trust to guide us through the maze.

Let the clean blackboard be a sort of diagram of the original vague potentiality, or at any rate of some early stage of its determination [...] This blackboard is a continuum of two dimensions, while that which it stands for is a continuum of some indefinite multitude of dimensions [...] There are no points on this blackboard. There are no dimensions in that continuum. I draw a chalk line on the board. This discontinuity is one of those brute acts by which alone the original vagueness could have made a step towards definiteness. There is a certain element of continuity in this line. Where did this continuity come from? It is nothing but the original continuity of the blackboard which makes everything upon it continuous. What I have really drawn there is an oval line. For this white chalk-mark is not a *line*, it is a plane figure in Euclid's sense – a *surface*, and the only line there, is the line which forms the *limit* between the black surface and the white surface. Thus the discontinuity can only be produced upon that blackboard by the reaction between two continuous surfaces into which it is separated, the white surface and the black surface. The whiteness is a Firstness – a springing up of something new. But the boundary between the black and white is neither black, nor white, nor neither, nor both. It is the pairedness of the two. It is for the white the active Secondness of the black; for the black the active Secondness of the white [...]



**Figure 4:** The Blackboard Diagram (adaptation of diagram existing in *CP* 6.206)

The whiteness or blackness, the Firstness, is essentially indifferent as to continuity. It lends itself readily to generalization but is not itself general. The limit between the whiteness and blackness is essentially discontinuous, or antigeneral. It is insistently *this here*. The original potentiality is essentially continuous, or general.

Once the line will stay a little after it is marked, another line may be drawn beside it. Very soon our eye persuades us there is a *new* line, the envelope of those others [...] The new curve, although it is new in its distinctive character, yet derives its continuity from the continuity of the blackboard itself. The original potentiality is the Aristotelian matter or indeterminacy from which the universe is formed. The straight lines as they multiply themselves under the habit of being tangent to the envelope gradually tend to lose their individuality. They become in a measure

Such relatedness does not deny the absolute but it does transform it profoundly: instead of a relative absolute we have the absoluteness of the relative in Nature. Between the solipsistic 'I' and the empirical 'It', we have the connective movement of the ever-evolving Heart or 'Thou'. This 'Thou' may manifest itself through this person or that rock or that plant but such accidental manifestations aside its essence is the sign that grows by virtue of evolutionary Love.

The peculiarity of the vital impulse of Love as a connective triadic activity corroborates our central claim of Peirce's structural indebtedness to Plato, as it is clear that the Kantian and Aristotelian categories in the diagram are brought together under the structure of the *topos* which emerges as primary. Notwithstanding the value of the platonic philosophy of the *topos* for such a conceptualisation of the categories, it could still be said that the analogy between Peirce and Plato cannot be stretched too far. Insofar as it is vortical, the Peircean distribution of the faculties and the categories would appear to be incompatible with Plato's famous example of the vertical divided line separating sensuousness from intelligibility. Furthermore, nowhere does Peirce liken the three categories with transcendent intelligible Forms. On this aspect, he will distance himself from Plato, reproaching the latter for having made the triadic nature of *topos* indispensable yet not fully appreciated its importance for a more sophisticated experience (*EP2*, 38). Such criticism notwithstanding, we still consider Peirce's

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more and more obliterated and sink into mere adjuncts to the new cosmos in which they are individuals (*CP* 6.203-6.206; original emphasis).

We may now see how the universal categories that constitute the spine of Peircean philosophy find their seed in this early attempt to account for a self-expressive absolute and that although the 'I' and the 'Thou' are not designated in the 1859 diagram, the three elements are nonetheless impossible to be thought apart from each other. We may say that only the second, or the 'It', can be known as crudely 'actual' or existent. But the octagonal (or oval) surface that is the 'It' is relatively determined by being contrasted with its outside as first or I and the boundary generated by so many lines as thirds or 'Thous'. The overall surface is a First in itself but so are the blackness and whiteness and every single line, which in being Seconds nonetheless include Firstness. In turn, insofar as all of them appear as a structure (an oval, a circle, an octagon, etc.), they are simultaneously Thirds enfolding a Second and a First.

position to be an evolution rather than an overturning of the Platonic formulation. If Peirce is able to put forth a metaphysicalised unconscious or liminal feeling beyond mere sensuousness this is exactly due to the philosopheme of the *topos* as a place of higher capacity in comparison both to the sensible and the intelligible. After all, it is debatable whether in fact Plato ‘misunderstands himself’ as Peirce puts it, since with the *topos* the classical philosopher puts forth a relation between being and becoming far more complicated than that of a simple dichotomy. On the contrary we would argue that the immanence of the Idea in the intelligible and the sensible combining *genesis* and *ousia* into a ‘mixed and generated reality’ (*μεικτὴ καὶ γεγεννημένη οὐσία*) (*Phil.* 27b) leads to the late manifestation of the Idea as potential or ‘meontic’ (*Soph.* 246a-251a), which is the very view Peirce retains from Plato and which Kant misses in his critique of the Idea in the *Critique of Pure Reason* (*CPR* A311/B368).<sup>100</sup> It is by means of such a notion of Idea as potential and capable of becoming concrete that the being-becoming contrast is ultimately refined into a contrast between process and its result as the mixture that represents the purpose of the process (*Phil.* 53c-54d). It is because of such refinement that Peirce is able to adopt the Platonic maxim of the *processes* of the mind and nature being one without necessarily supposing that their results are identical except, of course, in their essence as processual. This is not simply crucial for positing that an unconscious or natural process may nonetheless yield something different to

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<sup>100</sup> Peirce does not explicitly mention Plato’s distinction in the *Sophist* between *οὐκ ὄν* (non-being) and *μὴ ὄν* (not-yet-being) (*Soph.* 260b), which many post-critical philosophers such as Schelling have famously deployed to expose a more sophisticated streak in Plato that reveals the classical philosopher’s understanding of the being of the Idea to beyond clear-cut distinctions between being and non-being. Yet we may infer from the early writings we are investigating that Peirce is mindful of the distinction and that he seems to take the side of the potential ‘meontic’ being. We have reason to believe that this is so as in 1892, Peirce will clearly refuse to replicate the Parmenidean and Hegelian dilemmatic interpretative gesture hovering between either being or non-being and will refuse to define Firstness as the ‘nothing of negation’ (*CP* 7.569). We will turn to this detail in the final chapter of this thesis.

itself – namely conscious thought. More importantly, the capacity of process to self-differentiate in its results enables Peirce to avoid both the all-encompassing monistic sameness of nature and reason and their dualistic separation or – to revert to the terminology of the previous chapter – their discontinuity.<sup>101</sup>

The affinity of the process of thought and the process of nature is made clear in 1861 in an essay written in parallel with the *Treatise* and the *Modus* and bearing the interesting title ‘Analysis of Creation’. There, the topo-logical process of redoubling according to which any component of the triad may be repotentialised for the next is given by means of the following formula:

*Formula of Thought.* 1 Whence is *B*. 2 *B* pure and simple is *A*. 3 *A* is no longer *B*. Why. 4 *A* to become *B* must be joined to *B* in its *null* form *C*. What *C* is. 5 What is the process by which *A* is combined with *C*? It is  $B^{2nd}$  (*W1 MS71* 1861, 85; original emphasis).

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<sup>101</sup> In this sense, we would be more inclined to trace the difference between the two philosophers in the Platonic assertion that there is a ‘fourth’ involved in the mixture which is the ‘cause’ of the third in the compound (*Phil.* 23d). For Peirce, no relation is of a higher nature than the triadic relation and no fourth is necessary because his logic is not the numerical logic of compounds. In Peirce, the ‘cause’ Plato demands is already involved in the triad, which as we have argued is paradoxically product and element of the junction. We see how Peirce is influenced by and elevates Plato’s inspiration at the same time by giving fuller expression to the metaphysics of the junction. Tetrads, pentads, hexads, etc. may all be analysed into the triads of which they are constituted (*CP* 1.292; 1.347; 6.323). The highest unanalysable relation therefore remains the triad which irreducible to a dyad. We will have the chance to examine the three categories in greater detail in the coming chapters. But it would be useful to see how Peirce conceives of the triad in relation to the dyad and the monad, the three categories of Nature. As he puts it:

[A] triadic relationship is of an essentially higher nature than a dyadic relationship, in the sense that while it involves three dyadic relationships, it is not constituted by them. If A gives B to C, [...] A, acts upon B, and acts upon C; and B acts upon C [...] But these three acts might take place without that essentially intellectual operation of transferring the legal right of possession, which axiomatically cannot be brought about by any pure dyadic relationships whatsoever. Just as much, but no more, is a dyadic relation – or the sort of fact expressed by a two-subject predicate – of a higher nature than any fact expressed by a one-subject predicate, such as ‘is blue’. For the two-subject fact involves two one-subject facts, but is not constituted by them. If A acts upon B in any way, something analogous to a strain, or stress, takes place within A, and something of the same sort in B; but these two happenings might take place irrespectively of one another, without any action of A on B (*CP* 6.323).

That this formula is characterised as one of thought should not be taken to restrict us to the human or the psychological. Again, to the extent that consciousness needs to become, it is already implied that it is part of a much larger process of revelation by involving sense and abstraction; the presence of nature as the immense manifestation of the unconscious in reason is there from the beginning. The particular interest in the formula rather lies in the fact that this process is also termed as a process of ‘combination’ or ‘concretion’ (W1 MS78 1864, 145). We are once again faced with a peculiar notion of revelation whereby what is revealed is revealed by way of combination as a relative or continuous determination. With regard to the particular concretion that a concept is, Peirce uses the following example: We may substitute a certain ‘modification of consciousness’, such as the concept ‘causality’, for B. Yet ‘causality’ pure and simple is an abstraction A. As such, it is ‘no longer a modification of consciousness at all, for it has no longer the accident of belonging to a special time, to a special person, and to a special subject of thought’ (W1 MS71 1861, 85). In order for an abstraction to become a concrete modification of consciousness, it needs to be *joined* with something that is not yet related to consciousness, a ‘null form’, which is the ‘perfectly unthought manifold of sensation’ or C. As Peirce further explains, A may be considered as ‘Ideal Form’ shorn of its matter and hence as ‘mere meaning’ without expression; C may be considered as ‘Partial Form [...] permitting the ideal form to become a realisable form’ by being the unthought matter or what expression is before it acquires any meaning; and B may be seen as the realised/actualised form (*ibid.*).<sup>102</sup>

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<sup>102</sup> We may classify the components of the formula in the following way:

A: B as pure and simple; form beyond consciousness; free Expression/mere meaning i.e. no longer expression because shorn of its matter regarded as such by the intellect; formal only by abstraction; ideal form.

C: B in its null form; form as of yet unrelated to consciousness; expression before it has any meaning; partial form which permits ideal form to become a realisable form; an operation of

The insistence on forms should not be taken to repeat the Kantian problem of formalism or to refer to transcendent intelligible Forms. As Peirce makes it clear, it is a logical mistake to consider the distinction of form and matter to be anything else than an abstraction of reason. Like any other of the triads we have been investigating so far, the components of the triad of Ideal form, partial form, and formed matter are distinct yet such distinctness results from their continuous and mutual determination. Within this framework of metaphysical continuity, abstraction cannot be said to be *really* shorn of its matter: ‘form in its purity being deprived of matter is only form because the intellect regards it as such and not really’ (*ibid.*, 86; original emphasis). Like any other member of the triad, abstraction can only make sense with reference to a *topos* through which it becomes and is involved in other becomings. Instead of relapsing to the problems of formalism, the importance of the above-mentioned process of revelation *qua* junction of ideal form, partial form and formed matter is that it puts us on the trail of a speculative conception of the Logos as abstract or ‘metaphysical matter’, or ‘Meaning’, as Peirce puts it in anticipation of semeiotics, that becomes through a ‘machinery’ of revelation or ‘realisation’ (W1 MS71 1861, 88).

The particulars of ‘realisation’ begin to coalesce in a subsequent essay called the ‘Analysis of the Ego’. In this text, and according to the logic of realisation, a concept is clearly defined as the ‘incarnation’ or ‘materialification’ of an abstraction in consciousness. As such, a concept is first and foremost ‘a realiser’; it is not a mere formal vessel or medium for the abstraction it incarnates since it does not realise something external to itself. Rather, a concept ‘expresses its [own] realisation’, or, to revert to the terminology we have employed so far, it expresses its own matter *qua*

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determination.

B: B actualised; modification of consciousness as expression; determined ideal form; meaningful form.

continuous with the Logos or Meaning which is the very stream of the unconscious. As Peirce asserts, in ‘*doing* or expressing something – [the concept is] working itself out – and expresses the particular working out that it does’ (W1 MS78 1864, 148). It is from this latter standpoint that the concept is also defined as a ‘Function’ which may be said to ‘[disregard] the abstraction worked out and [to disregard] that in which it is worked out [but to look to] the ‘identity or difference of the working out function itself’ (*ibid.*).

Crowning a set of different characterisations of the process as ‘combination’, ‘conjunction’ and ‘concretion’, the novelty of ‘realisation’ as function, is evident in the fact that it founds the transformation of ‘representation’ into ‘interpretation’, which as we have seen in the introduction to this part will be defined by Peirce as a triadic activity of junction between the sign, the object and the interpretant (W1 MS133 1866, 523). Indeed, the function of realisation of the concept enables us to understand the logic of reduplication implied in the ‘B<sup>2nd</sup>’ as anticipating such a triadic operation of signification and the definition of the sign along these lines. First of all, we need to note that the concrete concept B is a function does not mean that it is defined by a pre-existing function. Such an option would do nothing else but aggravate the *a priori* problem. Moreover, its status as a function does not entail that it has a starting point in the conscious ego or in a divine principle. As the folded diagram of the IT shows, we are dealing with a cosmogenetic function returning unto itself. It is here that we encounter the conceptual ancestor of the liminal curve: any concrete concept is a self-determining or self-expressive function marking the singular points at which it may be re-potentialised for the next becoming. In other words, any concrete concept marks the process of determination that brings it to existence. It is precisely from this point of view that attention may be paid to the ‘identity or difference’ of the function, as Peirce writes: a concretion plays different roles and may or may not lose

its identity depending on whether or not it endures in the series of continuous connections. A concept B may therefore be said to enfold two elements and their immediate neighbourhood or interval as the third element: insofar as it is thought at a given interval, B is actual or concrete; but taken in itself – as it is purely and simply or abstracted from its actualisation in consciousness – it is not even identical to this actual interval. In other words, the B is a becoming-actual which, at the limit, may be re-potentialised as the most abstract term of the next concretion.

With the characterisation of the concept as self-expressive function, our discussion on the logics of revelation and junction comes to a head. Our question was: why does Peirce find it appropriate to conflate the two? Is not revelation always too close to ‘creationism’, an indication that we are caught in a dogmatic framework of emanation or derivation from the divine? We may now bring together the clues we have uncovered in Peirce’s early oeuvre to answer all these questions definitively in the negative. Creation or revelation, as employed by Peirce in this instance, has nothing to do with emanation but is the self-determining function whereby the Universe is immanently expressed in the genesis of the concept. The difficult task, then, is to provide an adequate metaphysics of the same cosmogonic or natural function as that which simultaneously brings to existence the experienced as well as the consciousness for which there is a determination. From the perspective of such a self-determining cosmic functionalism, we are confronted with a redefinition of revelation or creation itself not only in non-transcendent but in non-psychological terms. If we use the term ‘creation’, this is so only to the extent that ‘[the] first condition of creation is [...] *expression*’ (W1 MS71 1861, 85; added emphasis). With this clarification, the nature of Peirce’s Logic is finally disclosed: neither transcendental nor formal, it is precisely a

Logic of expression which is nothing else than the expressing or reduplicating logic of the ‘*B<sup>2nd</sup>*’ through which the absolute or Nature fashions itself.

The importance of such a logic of expression for our reconstruction of Peirce’s semeiotics lies in the fact that it qualifies this semeiotics as a cosmic process irreducible to and prior to semiological considerations from the beginning. Foreshadowing the definition of the sign as such an actual or phenomenal concretion, expression is not language, conventionally understood. Rather, language itself is what requires the Meaning or the inherent finality of Nature. As Peirce writes:

1 Whence is expression? [...] 2 Expression perfectly free from the extraneous and accidental is mere meaning, which is of course no longer expression at all, because it will be shorn of its matter altogether. Expression is form but mere form in its purity being deprived of matter is only form because the intellect regards it as such and not really. Meaning to become expression needs to be combined with what expression is before it has any meaning, or Language. This Language is not matter but is a partial form which permits the existence of that ideal form Meaning to become a realisable form. The means therefore by which meaning enters into language, is the determination, the *regulation* of language (W1 MS71 1861, 86; original emphasis).

The degree to which the cosmic process of genetic self-differentiation is indifferent to epistemological or linguistic restrictions is evident in Peirce’s choice of examples. While examining the nature of the concept along these terms, he also finds it relevant for his analysis to include various entities such as a ‘curve’ or ‘the animal kingdom’. As he explains, ‘[a] curve is an expression, in which the meaning regulates the language – which is geometrical form. The animal kingdom is a Language. The four types are the regulation of the Language by the Meaning’ (*ibid.*). It is clear, then, that genesis, re-conceived as the coming to concrescence or experiential actuality itself is not and cannot be exclusive to the concept. If this is to be a proper metaphysics, the process of redoubling must be common to the thought and the thing; to borrow a term from medieval philosophy, the process must be predicable in the same sense of

*everything* that is, whether infinite or finite, though not necessarily in the same experiential tonality. From this perspective, a concept and a feeling are different though continuous determinations of the same cosmogenetic process: formally, a concept is a redoubled ‘idea of the idea’, an ‘idea of Feeling’ or a ‘true idea’; materially, however, it enfolds Feeling at its core.

It should be clear by now that Peirce’s logic of reduplication is nothing else than the attempt to re-cosmologise the problem of knowledge. What we have reconstructed above as the Platonic strand in Peirce’s thought is not the process of consciousness peculiarly (be it transcendental or not) but the process of an unconscious metaphysical movement, which Kant approximates with the *tertium quid* of schematism and the aesthetic experience of the third *Critique* but fails to articulate immanently as his philosophy, according to Peirce, remains attached to discontinuity (as we saw to be the case with the problem of synthesis). If in Peirce there is no reference to a formal transcendental schematism it is because experience has become inherently operative or ‘schematic’. The point, then, is not so much one of analysing the synthesis of external terms (*partes extra partes*) but of asking how the terms (sense, consciousness, abstraction) are continuous and yet different. Synthesis needs to be thought uncritically as a problem of the internal determinations or self-differentiations of Nature into modes that are continuous yet irreducible with a ground in experience otherwise the move from criticism to metaphysical speculation that Peircean semeiotics presupposes is impossible.

A final question arises, giving us the opportunity to return to and to conclude our Kantian problematic of schematism: could the process of cosmic self-differentiation be called Imagination? Peirce does not use this term to describe the process. Nonetheless, we argue that Imagination finds its equivalent in the Logic of

Becoming, the B<sup>2nd</sup> as the process of production of Feelings or ‘Images as Images’. What in critical philosophy remains the hidden constituent of our finitude is transformed into the positive ground of the manifestation of nature or the infinite in the human. Imagination, then, applies in Peircean philosophy in the sense Novalis gives it, as the ‘magical’ or ‘extramechanical power’ through which things express themselves (Novalis 1997, 135).<sup>103</sup> Something in the mind is unveiled after it has been revealed in the world. As Peirce beautifully puts it: ‘Mere imagination would indeed be mere trifling; only no imagination is *mere*. ‘More than all that is in thy custody, watch over thy phantasy,’ said Solomon, ‘For out of it are the issues of life’ (*CP* 6.285; original emphasis). The *topos* that is the Image therefore faces us with a vital totality that we experience but for which, properly speaking, we have no concept. The liminal does not represent anything but merely incarnates or reveals the absolute in its own way. We can therefore talk about the Image as concept or representation only after we have affirmed the metaphysical activity of junction.

### 3. A Practicing Intuition

We have seen that Peirce’s early response to the post-critical problematic of the genesis of reason is expressed through the conceptualisation of an expressive logical movement by which concepts, like any other concretion, realise the absolute in their own particular way. Something, be it a thing or concept, is created as ‘new’ precisely insofar as it carries over and overcomes its past determinations in an immense manifold of relative determinations. In this sense, everything is paradoxically

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<sup>103</sup> It is perhaps for this reason that the latter also writes: ‘Physics is nothing but the theory of the *imagination*’ (Novalis 1997 153, original emphasis).

continuous with and yet different from the process through which it comes to be. Or, to rephrase according to the Kantian problematic that has been our focus all along, every new thing is new precisely in relation to the logical process that grounds it. The first important requirement of such formulation is that unconscious experience be the metaphysical and logical minimum of this expression. As we have demonstrated, this experience is not to be confused with the collection sense-impressions subjected to unity by *a priori* subjectivity. Subjectivity itself explains nothing. Rather, it is what must be explained through experience now posited as the topos where Nature generates or realises itself. For Peirce, the question ‘How does anything which exists, exist?’ is synonymous with the question ‘What are the conditions of subjectivity?’ (W1 MS78 1864, 144). The crisis of grounding is therefore transformed into a superior empiricism: as a metaphysical junction experience is not simply a standpoint on the world but generative of a world. The standpoint is neither active nor passive but, to borrow Duns Scotus’ term, ‘operative’;<sup>104</sup> it is a pure and *liminal* site of construction, the unconditioned ground zero, where the archetypal emerges with its phenomenon or – to repeat the point we made at the beginning of this chapter – the ground where the given immanently emerges with its determining function.

It is at this point that we may prepare the ground for another important influence of the concept as function, which we will be examining in the last chapter but

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<sup>104</sup> As is well known, in his effort to solve the problem of the Aristotelian doctrine of sensation as a formal ‘impressed species’, the scholastic master will try to avoid the easy ascription of activity and passivity to either of the components of the soul-body composite. His intervention will crucially involve the separation of *action* as ‘productive [...] which in some fashion *causes* its term to exist’ from *operation* as ‘an *intrinsic* act by which the operator himself is ultimately perfected’ (Scotus [1306/1307] 1975, 285). With this distinction in place, the uniqueness of operation as an *exercise* drawing *attention* to its own *work rather than its object* will be precisely predicated on its nature as *intrinsically automatic*. In other words, an operation does not need to be set in motion by some thing external to it but sets itself in motion by being *parallel* to yet tending toward its object. Consequently, *qua* operative ‘intuitive cognition’ may be considered as a passive potency that nevertheless contains its own capacity for movement (*ibid.*, 305-307).

which we must nonetheless bring up as it is the connective thread between the two parts of this thesis. After the peculiar functionalism of cosmic expression is in place, after the triadic logic of reduplication has disengaged the concept from agreement, the question about the nature of the concept inevitably shifts. Instead of asking ‘what is a concept?’ Peirce seems to us to be posing the question ‘what does a concept do?’<sup>105</sup> Echoing the problematic we established as the guideline of our inquiry – namely, ‘what does a sign do?’ – this approach showcases, besides Scotus, another influence we find in Peirce, which the reader may have already recognised as Spinozist. Indeed, Peirce’s re-cosmologisation of the sign may be said to approximate Spinoza’s ontological process, put forth in the *Ethics*, of Substance being actualised into different essential and existential modalities which are affection of its attributes (*Ethics* I.11, I.14; I.20; I.21; I.23).<sup>106</sup> In a way highly reminiscent of this system, Peirce’s sign – every sign as any-thing – is the product of an idiosyncratically ‘logical’ process of concretion, as we have seen our philosopher to call it, through which the passage of the abstract or metaphysical matter that is Nature into actual expression is effected. We cannot hope to do justice here to Spinoza’s philosophy, which is too complex and sophisticated to be the object of a casual comparison. However, we already have in the title of Spinoza’s masterpiece, the gist and the inspiration of our conjunction of the two thinkers. As will see, as for Spinoza so for Peirce the production of actual modes or

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<sup>105</sup> It is worth noting, in passing, the interesting ways this question has been tackled in contemporary philosophy. We have in mind Gilles Deleuze and Félix Guattari’s work in *What Is Philosophy?* where pragmatism is productively thought alongside a variety of other philosophical influences, including Spinoza, to restore to the concept a capacity that is not *a priori* representational but immanently creative of habits or territories that are so many different expressions of ‘chaos’ conceived as the archeogon potential of creation ([1991] 1993, 103-106). Although Peirce does not make an explicit appearance in this work, this thesis could be seen to agree with and complement, from a Peircean semeiotic perspective, such a view of the concept.

<sup>106</sup> The numbers here do not refer to pages but to Spinoza’s propositions, while the Latin numeral *I* refers to the first part of the *Ethics* ([1676] 2001). Unless preceded by a Latin numeral, any numbers in referencing the *Ethics* indicate pages.

concretions or signs, to remain faithful to our terminology, entails a break away from the strictures of transcendent theology, which in Peirce's time is expressed by the moral theology of Kant. Resonating with the Spinozist dictum '*Deus, sive Natura*' (*Ethics* IV, 162), Peirce's self-signifying or expressive Nature already invalidates the distinctions between finitude and divinity that necessitate not only the conceptualisation of the divine as an ideal focus of consistency separate from the subject and the world, in general, but also as high moral demand. To put forth a cosmic production of signs as the process through which the universe expresses itself continuously yet differentially in creation is automatically to extricate a now postulated God-Nature from the status of something that needs to be superseded toward a higher final end. In other words, Peirce's early logic of expression already hints at a finality inherent in Nature that, in being the genetic ground of the subject, is of a far more sophisticated kind, *qua* un-conscious, than what Kant's anthropological pragmatism would hope to achieve. As we will argue, 'what the sign *does*' is precisely to evolve, to discover and construct according to a junctive logic, this expressive potential without the safeguards of a theological determinism that would be needed to deem the production of signs as 'moral'. The Peircean production of signs is accompanied by a different theology, a different ethics, and a different pragmatism as properly cosmological. This, as we will show, is the ground upon which the question of the vocation or the evolution of the human will be played out.

These above issues will need to be postponed until we have explicated the fundamentals in Peirce's cosmology. The basic argument of this chapter is that without the Platonic philosophy of the *topos* none of these future formulations are possible. Peirce can avoid the Kantian distinctions and especially the model of subjection and its prerequisite of a passive intuition as discontinuous from the active faculties only by

supposing a relation between them that abides by the triadic logic of generative continuity. To recapitulate the point we have made in the previous chapter, according to this logic, Ideas *qua* impressions refer neither to things as they ‘really’ are nor to a transcendental object. Rather, they are the proper real *constructs* of an intuition, which has a constitutive role in expressing the Absolute. At the limit, the abstract material feeling or Image is ‘immediately present’; it is ‘wholly incomparable’ to any other cognition and hence ‘wholly inexplicable’, an ‘ultimate fact’ of sorts (W2, P27 1868, 226). This inexplicability, however, is not terminal for the future of philosophy – with the exception, perhaps, of a metaphysics of absolute reason. In Peirce’s words, ‘as something present, feelings are all alike and require no explanation, since they contain only what is universal. So that nothing which can truly predicate of feelings is left inexplicable, but only something which we cannot reflectively know’ (*ibid.*, 227). Insofar as it reveals the universal or total *thing-in-itself*, intuition, idea-impression or Feeling, is re-conceived in terms of an impersonal infinitude that is proper to it alone.

From this perspective, not only is metaphysics not hindered but also the possibility opens up for a reconstruction of the Kantian usage of the archetypal. Lying in the middle, this third determination of experience that is Feeling makes it possible for *us* to have an intuitive unconscious presentation of a whole, which however is not a recognised or unified ‘one’. We thus argue that Peirce is flirting with an alternative and largely ‘antinomic’, in Kantian terms, kind of experiential intellect where what is given to thought is the unthought as generative of difference. This astonishing moment in Peirce’s early work returns us to his connection to late Kant and the Romantics. By preserving the *noumenon* as the felt limit of our cognition, or the intensive territory of the triadic Logos, such a formulation of the absolute in experience returns, us to a crucial moment of openness in Kant’s Transcendental Deduction and the *Critique of*

*Judgment*, where the archetypal understanding and our own discursive/ectypal understanding almost touch. Indeed, the clearing of a logical third world, of an unthought within thought has a marked affiliation to the clearing of the absolute within the finite subject that characterises so many of the post-Kantian philosophies and is initiated by the rupture of reason in the late Kant himself with the discussion of aesthetic and teleological judgment. As we have seen in the first chapter, in such judgments the subject is confronted with the contingent and surprising *presence* of something that cannot be *re-presented* without upsetting the power of the active faculties. Revealing a finality inherent in nature, aesthesis thus emerges as primary in comparison to determinative and practical judgment which it purports to bridge and ground. By giving the total to the unconscious, Peircean Feeling takes Kant's formulation to a level where it can finally enable a natural philosophy of the unconscious. To speak Kantian, with feeling we no longer have a mere aggregate of parts synthesised by a subject but a 'system' *for* the parts out of which the subject arises. In other words, feeling is the formal and material condition of subjectivity itself. As such, it must be considered in its own power and 'in balance' with the other faculties (W1 *MS12* 1857, 11). Having taken the *a priori* character of synthesis out of the picture, Peirce in effect flirts with the possibility of a continuous relation between infinite and finite understanding. If not directly referring to the *Critique of Judgment*, the decision to conceptualise *things in themselves* as felt ideas constituting the unthought manifold of experience and preceding representation can at least be said to summon that paradoxical form of intellect that entertains a different relationship with the absolute as its expression.

Uncovering an infinite unthought within thought not only means that knowledge need not have its source in the unknowable essence of the thing but also

that the mediation between the thing and the concept is human only accidentally. This is why Peirce spends so little time on epistemology and this is why, eventually, epistemology cannot be confused with semeiosis. As we will see in the second part of this thesis, semeiotics is a semeio-logic that includes but is never reducible to a semiology. If the *Treatise* enters the problem of knowledge so abruptly, by declaring a logical method for philosophy and by refusing to name the ‘subject’ as such, it is because the absolute is logically ‘given’ as *sense* (which we distinguish from linguistic sense) prior to the constitution of the ‘I’ with which man identifies. Peirce’s departure from critical philosophy hinges precisely on this refusal to take subjectivity as an unproblematic ‘fact’ that would constitute the ‘foundation’ of logic (W1 MS122 1866, 361). Critical or transcendental consciousness may offer a way out of the psychologism of empirical philosophy but there is a weakness in subjugating the order of the object to the order of representation, the order of the experienced real to the order of the reflecting subject. The weakness is that by rendering being relative to representation, critical consciousness places too much emphasis on the one who thinks rather than the thought. In turn, such an emphasis finds its narrowest manifestation in anthropological psychologism. Indeed, Peirce is very vocal about the pitfalls of trying to construct a treatise on man:

Man has the power of testing the truth of representations by comparison; but so has a syllogism on paper. Man elaborates knowledge by abstraction; but so does a proposition. Man first made words not words man; but the mind itself has been made by natural representations. It would be false to say, that man makes use of words, any more than words employ man [...] it is not the man himself but his conceptions which are representations; and these have no more individuality in their representative character than words have [...] (W1 MS113 1865, 326).

With the above, it becomes clear that critique is not immanent to the subject but to the logical procedure with which the absolute speaks its own sense. In this regard one

should note that Peirce's discussion of the problem of the beginning of philosophy, like his diagram of the 'It', is fundamentally circular and that this is a problem which is not only logical but also methodological. Contrary to Kant, who postpones his architectonic for the end of the *Critiques*, Peirce demands that philosophy start with as a full system from the very beginning (*CP* 6.95). This does not mean that Peirce collapses the distance between empirical and absolute knowledge in a wholesale dismissal of human finitude. Limitation still exists but Peirce's point is at once subtler and more complicated: if only experience or Feeling can be said to *reveal* the absolute, the subject is limited only to the extent that it is conscious – or, conversely, it is unlimited only to the extent that it logically enfolds an un-conscious cosmic self as its condition. We thus have a complicated gesture whereby our finitude is simultaneously overturned and affirmed: inasmuch as it is overturned, the absolute constructed in experience is there from the beginning – intuition reveals the infinite within us; but inasmuch as it is affirmed, the absolute is also at the end – it is the 'infinitely distant point at which we aim' (*W1 MS78* 1864, 155). Peirce's philosophy thus demands access to the unconditioned through intuition that alone recovers the movement of things or signs themselves.

It is from such a non-anthropological standpoint that we may comprehend the necessity and the value of Peirce's logical method. This method is different not only from a spatiotemporal analysis of possible experience but also from a critical analysis. It reaches the conditions of the given, but these conditions are becoming-subjects, immanently presenting themselves as *felt*. Peirce's philosophical method is thus less of a method and more of a practice. Practice is a better term for an expressive activity that emerges and evolves *with* its rule and logic is the practice through which the absolute determines itself. Logic can be neither a by-product of human nature nor

simply representative of things; it is rather the practice of a final feeling and thinking Nature on its way to concretion. As Peirce writes in 1868, almost anticipating Nietzsche's similar aphorism in the late 1800s, '[just] as we say that a body is in motion, and not that motion is in a body, we ought to say that we are in thought and not that thought is in us' (W2 P27 1868, 227).<sup>107</sup> That the intensive unthought is fundamentally non-human is thus a logical conclusion and it is logic itself.

With this last conclusion, we may finally return to the proposed 'scientific' character of Logic to suggest that the latter is indeed a 'science' but only to the degree that science itself is subjected to a radical re-definition. In a framework where the archetypal emerges with its rule and result, science can no longer be understood as the awakening to the pre-giveness of a transcendental structure as Kant would demand.<sup>108</sup> Put differently, it is not the complete and ready-made product of an intellect that is done specifying the conditions of possible experience. Peirce would have agreed with Schelling's astute diagnosis that Kant had left to reason nothing but a form of science focused upon the elusive essence of things but incapable of 'realis[ing] or prov[ing] any actual, real being even in the sensible world' (Schelling [1842] 2007, 210). But within a logic of sense or intuition, as Peirce conceives it, science itself is another yet concretion, a manifestation of an evolving Nature that comprehends itself as evolving. That 'there is no science of the absolute or the pure idea', as Peirce says, therefore does not entail that there is a pure and unreachable absolute the knowledge of

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<sup>107</sup> We are referring Nietzsche's formulation in aphorism 574: 'It is in the nature of thinking that it thinks of and invents the unconditioned as an adjunct to the conditioned; just as it thought of and invented the 'ego' as an adjunct to the multiplicity of its processes' ([1883-1888] 1968, 309).

<sup>108</sup> We might say that in Platonic terms the Kantian conception of science would qualify as *dianoia* (διάνοια), a exercise of thought such as geometry, and not as *episteme* (ἐπιστήμη) which involves a bolder type of experimentation with what challenges and pulls thought from without (*Rep.* II 3,99).

which must be forever wanting; quite the contrary, there is no need to identify science with knowledge in the first place. True science can only be a local experimentation, enfolding and constructing the process of Nature in particular ways. In other words, science – which is here understood in its wider sense as comprehension of a certain matter or *episteme* but which in Peirce applies both to metaphysics and the ‘hard’ sciences – can only be a practice and this is at the root of pragmatism. We will turn to a fuller articulation of pragmatism in the following chapter. But before we have a chance to delve into this topic, we must address the obvious problem: in having made science experimental or constructive, have we divested it of its objectivity? Moreover, have we lost any chance to construct a properly ‘scientific’ metaphysics and, by extension, to make any claim to truth? Our argument is that Peirce would have considered this question slightly misplaced: yes, science is a construction but there is no need to measure construction against an ill-conceived notion of subjectivity and its *a priori* truth. **Construction**, creation, realisation are already Nature and it is in these terms that a properly experimental scientific metaphysics is possible. In this sense, science is experimentation with the consequences of these ideas inasmuch as they form novel concretions thus generating new realities.

Here, again, we can glimpse the curious Platonic vein in Peirce’s thought. For Peirce, science certainly involves intellectual activity but inasmuch as it enfolds the *topos* as its condition of genesis, it is first and foremost the *experience* of thought as the unconscious growth of abstractly material ideas in the human. Admittedly, such an understanding of science might make one wonder whether in fact Peirce does not contradict Plato: if Ideas grow before and beyond the subject then their acceptance is not the product of a conscious consensus as the Socratic search for truth would seem to presuppose. Within the Peircean framework, the acceptance of an Idea is only

secondarily contingent on recognition or ‘what everybody knows’, as Deleuze so aptly puts it ([1968] 1994, 131; 171). The truth of the Idea is dependent on the situation into which it was unconsciously introduced as fitting or relevant and within which the Idea must be tested. Concomitantly, the knowledge that this test produces – the transformation of the felt Idea into a consciously accepted Idea – is not exactly a return to a forgotten truth but the generation of a novel truth, a novel concretion or expression of the Absolute. Before everything we have experimentation and experimentation does not come with the safeguards of recognition: the only doctrine sufficient to account for the experimental production of truth is therefore a fundamentally ‘fallibilist’ doctrine, as Peirce famously puts it (*CP* 1.13). Nonetheless, what is interesting in this regard is that Peirce does not hesitate to call the fallibilist’s method ‘the real spirit of Socrates’ (*CP* 5.406).<sup>109</sup> Once again, we are confronted with the subtle interaction between Peirce and Plato: mimicking a return to dialectics, Peirce reconfigures the Socratic practice of inquiry as positive testing with aporias and hypotheses. This, in turn, gives us the basis of pragmatism, provided that with dialectics we do not mean the necessary and linear progression to truth but the spontaneous and often unconscious and erratic **evolution of ideas** leading to the realisation that ‘forms’ themselves are real and fundamentally active and changeable. Our argument thus is that the scientific status of Peircean logic gives us a superior or transformed dialectics at the root of pragmatism, which is superior exactly to the extent that is the methodological component of a metaphysical empiricism of the unconscious or the unconditioned. Again, that science is a practice, which we may now properly call ‘aesthetic’ after the experiential cosmology of the *topos*, means that its method cannot be given once and for every thing. The pragmatic mode of thought addresses rationalism as an important yet limited concern; to think

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<sup>109</sup> For interesting commentary on this aspect of Peirce’s thought see Ransdell (2000).

pragmatically, one must begin with the unconscious as that which commands attention and necessitates experimentation.

It is the evolution of Peirce's early logical method into a pragmatic method, already foreshadowed in the texts we have been investigating, that allows us to simultaneously reconfigure the classical reception of pragmatism beyond the strictures of epistemological consensus and to understand why Peirce differentiates his concept of science from Hegel. The said difference has to do precisely with his postulation of logic as having an irreducibly aesthetic or unconscious basis. We may note that for Hegel, not only is logic the movement of an intra-reflexive and ultra-rational absolute but it is opposed to reality, as well. We therefore have the eternal logical idea, which is a-temporal and without actuality and which must alienate itself from itself in order to become real (Hegel [1831] 2008, 75). But before the idea steps into actuality, it has already sublated all oppositions in itself. In other words, the passage of the absolute into nature and history is always already mediated into and unified by the abstract unity of the speculative concept. Hegelian dialectics thus begins from a rarefied, sanitised, and predictable space, whereby the actual world is only posited as a mere necessity of thought (*ibid.*, 229). As the *Phenomenology of Spirit* shows, in the full manifestation of the absolute, time is grasped by the pure concept and thus absorbed into its logical eternity (Hegel, [1807] 1977, 487). In the end, then, it seems as though actuality does not even happen. For Peirce, this is another yet manifestation of the spectre of Eleatic thought that denies movement, and real evolution. This point is insistent upon: Hegel 'has committed the trifling oversight of forgetting that there is a real world with real actions and reactions' (*CP* 1.368). He has therefore not only denied the sheer facticity of actuality or the 'It', but has also misunderstood the third mediation or relation between the 'I' and the 'It' as internal to one of them but without any ontological status

in itself. Hegel's doctrine therefore remains locked in an unbreakable deterministic and conceptual cycle that the idea cannot break out of. Localisation, experimentation is lost.

Peirce writes:

I am myself not only phenomenalist, but also idealist. I do not quarrel with the idealism of Hegel because it goes too far; but only because it is too simple an account of a more complicated matter [...] I do not think that physics has any pretension to have got down to the bottom facts, the absolute subjects of appearances at all [...] being an idealist, of course, I cannot yet accept the objectivity of relations in the sense in which you mean it. but that relations are as real as anything in the world, - much *more* real, according to my notion, than being dead things-in-themselves would make them, - to this, I fully subscribe. Philosophy has too often half-forgotten this, as Hegel only half apprehends the second movement of his dialectic (*W5 L1* 1886, 280-1).

From an evolutionist perspective, and to return to the metaphysical importance of hyperbolic manifolds, such a dialectical movement is parabolic or closed; it denies any real future to creation by denying the reality of the process of self-differentiation. It is therefore not truly dialectical but rather dilemmatic, showcasing 'only a feeble and rudimentary application of the principles of the calculus to metaphysics' (*CP* 1.368). From this point onward, it becomes evident that if dialectics is to evolve positively and pragmatically from an experiential and irreducibly differential triadic core, it cannot be the Hegelian dialectic of sublation of actuality and mediation into the oneness of the logical concept. We may recall that for Peirce '[the] metaphysical logos is no more [...] than the metaphysical soul or the metaphysical matter' (*W1 MS94* 1865, 168-9) and that the concept must be genetically derived from that abstract matter which is alternately called Nature or Logos. As we have argued and have yet to see in greater detail in the coming chapter, this important detail gives us the context in which Peirce's cosmological proposal proves its worth: semeiotic cosmology indeed attempts to single out the categories of the universe but in doing so it avoids a definition of reality independently of the very process that produces the cosmological proposal itself.

Against the closed systematicity of Kantian formalism and Hegelian logicism, we have the articulation of a cosmological semeiotic that does not advance by the necessity of conceptual thought and conscious signification. From a '*natura formaliter spectatum*' (*CPR* B164) and a merely predicative metaphysics we move to a speculative cosmology that re-naturalises meaningfulness before and beyond the anthropological confines of consciousness. We now turn to the next chapter, to see how the sign may be reconceptualised in terms of such metaphysics.

## Chapter 4: Renaturalising Representation

### 1. Representation, or the Colour of a Flower

Any one who attempts to *prove*, that representation is peculiar to the mind is either attempting to prove a theory of idealism, upon which I do not commit myself at present, and is therefore arguing beside the question; or else [one] does not fully understand what representation is.

C.S. Peirce (*W1 MS113* 1865, 326; original emphasis)

We need to summarise one more time the central problematic that set us on the path of reconstructing Peirce's early vertiginous metaphysics: the sign must be restored to nature, the cosmos must be able to speak its own sense. The purpose of the previous chapter was to plot the trail of connections through which this endeavour passes. We witnessed the transformation of the problem of synthesis into a problem of genesis whereby the rational subject is confronted with the cosmic or metaphysical unthought at its very core; and we saw that the unconscious or experiential Idea, which Kant had limited to the realm of physiology, becomes the metaphysical limit or ground through which a self-determining universe expresses itself. We argued that with this act of grounding thought in the unthought, Peirce exposes the constitution of finite consciousness as a vibration of Nature or the Logos. Indeed, it is only from the primacy ascribed to such an archetypal vibration that the transcendental field can be given an immanent articulation – that the criteria, in other words, for the immanent use of concepts can be said to be themselves immanently provided. Such an internal account of the genesis of reason in experience is what paves the way to a properly post-critical cosmogonic philosophy that, to repeat the point we have made previously, is simultaneously logo-gonic. As the concept so the subject is no longer transcendently

constitutive of nature but coterminous with the larger stream of nature's own unconscious auto-constitution which involves consciousness. The inherent, unconditioned and ever-evolving meaningfulness of the cosmos, which we have characterised as a cosmo-logic, becomes the first condition for the liberation of the sign from representation. But to fully understand how signification is no longer representational and unravel the nature of the Peircean sign, we need to ask whether the concept of representation survives the test of a topo-logic of expression and a pragmatic mode of philosophising.

The first point to be made in this regard is that in such a self-expressive ontology, where the universe experiences itself as it determines itself, the truth of the concept cannot be exhausted either by some sort of reference or correspondence to the thing or by its reference to a mind that supposedly produces it. Like any other phenomenal concretion, the concept is nothing but the expression or *tone* of the logical process by which the cosmos differentiates itself; it is material insofar as it enfolds an experienced Image as its own ideal limit and formal insofar as it is a re-duplication of that Image in consciousness. Its sufficient reason and its truth are therefore not to be found in the degree to which it represents a thing faithfully but in the degree to which it is part of a larger intensive determination as its real experienced or felt ground. With the logic of expression, we have therefore already moved past the constraints that Kant had set for the synthetic relation between thought and the thing. Insofar as they enfold the archetypal differently, both the concept and the thing are true by agreeing with their own respective natures. Genesis only makes sense from a logico-expressive perspective that demands not only a genesis of the intellect but also a parallel and

distinct genesis of the thing.<sup>110</sup> This does not mean that there is no agreement or correspondence between them – the thought and the thing are still continuous or relatively determined. Nonetheless, insofar as such continuity is generative of real separateness, when considered in themselves the two modes may be said to find their truth in their common source. Keeping this in mind, we may proceed to make sense of Peirce’s first definition of representation in 1865:

The first distinction we found it necessary to draw – the first set of conception we have to signalise – forms a triad

Thing   Representation   Form

Kant you remember distinguishes in all mental representations the matter and the form. The distinction here is slightly different. In the first place, I do not use the word *Representation* as a translation of the German *Vorstellung* which is the general term for any product of the cognitive power [...] I [...] would limit the term neither to that which is mediate nor to that which is mental, but would use it in a broad, usual, and etymological sense for anything which is supposed to stand for another and which might express that other to a mind which could truly understand it. Thus our whole world [...] is a world of representations. No one can deny that there are representations. . . The *thing* is that for which a representation might stand prescinded from all that would constitute a relation with any representation. The *form* is the respect in which a representation might stand for a thing, prescinded both from thing and

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<sup>110</sup> It is clear that for Peirce the problem of the correspondence between thought and the thing is past the requisite of ‘agreement’ ever since 1861. As he puts it: ‘Every thought has three elements and possibly a fourth: 1 The nature of the Thing, 2 The Nature of the Mind, 3 The Relations of the Thing to the Mind, 4 The Occult Relations *of* the Thing and *of* the Mind’ (W1 MS70 1861, 81; added emphasis). From this point onward, the notion of truth as depending upon the agreement of the concept or representation with its object is profoundly transformed. The adjective ‘true’ may indeed taken to apply to such an agreement but not all kinds of agreement between representations and objects are worthy of the name. We will see that this latter premise is exactly the one that spurs the classification of the different types of signs in Peircean philosophy. In any case, we are returned to the necessity of defining truth as stemming from the very nature of the concept as *appearing* – as a phenomenal expression or concretion of an already differentiated archetypical – which is to be distinguished from ‘cognisable veracity’ (*ibid.*, 80). Accordingly, the connection of the concept with the thing, which Peirce names *verity*, can only stem from the mutual correspondence *of the concept* and *of the thing* with their own respective natures, which find their common unity in the archetypical absolute. In other words, verity is the agreement of the concept and the thing with themselves, insofar as they each enfold the absolute differently. From that point onwards, any framework aspiring to account for the genesis of the concept, or better, the sign, will have to be articulated from a logical-expressive perspective that demands not only a genesis of the intellect but also a parallel and distinct genesis of the thing.

representation. We thus see that *things* and *forms* stand very differently with us from *representations* [...] (W1 MS105 1865, 257; original emphasis). Bearing the consequences of a novel metaphysics of continuity, the language of ‘precision’ used by Peirce at this instance is instrumental in helping us resist the temptation to interpret the statement that ‘our whole world is a world of representations’ epistemologically. The verb ‘to prescind’, which is peculiar to Peirce and means ‘to render precise’, points to something that is ‘attended to’ though not separated (W1 MS133 1866, 518).<sup>111</sup> Precision means that no term can be called upon without the other terms also being engaged. The topos is still an operative and central component in the definition of representation in the determination of which we find a more concrete manifestation of the ‘I, Thou, It’ triad. Representation is reducible into something mediate or mental only when this tri-relative determination is misunderstood – only when the terms are abstracted rather than simply prescinded from each other. Let us summon another yet instance Peirce’s famous paradigm of ‘giving’, which is foreshadowed in this instance, may further elucidate what is at stake. As is well known, the paradigm describes the relation between the three heterogeneous roles between the donor A, the donee C, and the gift B:

— gives — to —

In accordance with the above function and substituting ‘connecting’ for ‘giving’, we may distribute the roles as follows:

representation connects the thing to the form

The important thing, which our previous discussion has led to, is that the relation itself is prior to the terms it connects, which may be abstracted completely as affecting merely the meaning of the function but not the function itself. Neither purely formal (or

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<sup>111</sup> As he puts it in 1866: ‘that which is *attended to* is said to be *prescinded*; and that which is *neglected* is said to be *abstracted from*...abstraction therefore supposes a greater distinction between its members’ (W1 MS133 1866, 518).

conscious) nor purely identical to the thing it is supposed to represent, representation is simply the donor, junction or limit between the two. In this sense, it is as much constructed by the relation between thing and formal consciousness as it is the constructor of the relation. We witness here the Platonic heritage in Peirce's thought in its full effect: from a topological perspective, representation may be said to 'not even address the mind' as anything could occupy the third role without affecting the junctive character of the function (*W1 MS113 1865, 323*). As Peirce beautifully puts it:

An Aztec inscription which no one can read, a natural face upon a rock which no one has seen or shall see, is still a representation. The colour of a flower upon the flower is the representation of the flower in itself. To suppose [...] that there are things which are not representations is to suppose that there are things which are wrapped in themselves and have no attributes (*W1 MS133 1865, 326*).

The above passage clarifies what we have been hinting at all along: the genetic function stands behind not only the determination of different things in their mutual relations but the self-determination of a thing. The flower *gives* its colour *to* itself; it determines itself as red with or without us. For at the heart of what is called self-identity or auto-affection is the liminal relation, which now assumes metaphysical primacy (though not priority) over the *relata*. Quite literally, by determining or expressing or representing itself as red, the flower crosses the germinal limit that enables it to become its own object, or thing. In this sense, although this self-determination is expressed differently, it is as much of a *subject* as the human is. This is exactly the context we must begin with in order to make sense of representation as 'standing for' one thing to another, if we are not to repeat a misguided notion of mediation. To 'stand for' first of all implies to transform every-thing in relation to everything else in a huge network of relations comprising the fabric of the cosmos. *Qua* liminal, representation is inflated into the status of triadic relation and thus

belongs neither to cognition, in general, nor to the understanding, in particular.<sup>112</sup> As we have been arguing, from the perspective of an expressive ontology, the understanding cannot represent or grasp anything that is not already in nature and to which the understanding must relate. We may indeed be capable of conceiving that a representation is a representation in our consciousness. In other words, we may be able to understand that a representation is referred *to* us. Yet this reference does not qualify the intellect as some sort of a transcendent source of meaning outside the representation. The mind does not make the representation any more than the representation makes the mind. Or, to be more accurate, the understanding as form is co-constructed by the relation. It is from this perspective that Peirce gives a more accurate definition of representation only a few months after the first one in 1865:

Whatever is immediately present to us, will be instances of *what is*. These instances then have two characters

- 1 They are representations  
and 2 They are addressed to *us*.

That they are addressed to us, is only the limitation of our selection, and therefore must be abstracted from. That they are representations, arises from their being *taken* as instances. There are not merely representations of instances, but are representations *as* instances. Hence, we presume that *whatever is* is a representation (*W1 MS113* 1865, 324; original emphasis).

With this second definition, we come full circle to our metaphysical argument about representation: as a topos, representation is *of* something but it also *is* something; we have the representation *of* an instance but more importantly, and perhaps primarily, we have the being of representation *as* instance.<sup>113</sup> As such, representation has as much

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<sup>112</sup> We must insist on the triadic nature of representation as ‘Thirdness’ if we are to distinguish it from the dyadic relation of ‘Secondness’, which is also named ‘reaction’. Although Peirce use the term ‘relation’ alternately for both categories, their difference is clearly expressed in the number of terms involved.

<sup>113</sup> It is here that Peirce’s thought can be said to approximate that of his almost contemporary continental thinkers Henri Bergson and Edmund Husserl, as we have mentioned in the introduction to this part. This early clarification of representation anticipates the major thesis of pragmatism in 1905, according to which every representation carries a meaning beyond its immediate content, or what it is supposed to represent, by virtue of it also being interpretable

quality as the thing it is supposed to represent. It is the middle surface or interval that simultaneously unites and separates the unthought and the thought: *qua* image, impression or idea, it *is* something; *qua* idea of an idea, it *is* something *and* it is of something. The logicity of the concept is simultaneously its extra-logical facticity. If representation cannot be limited to the activity of cognition, it is because it overflows consciousness insofar as it has its own being and insofar as mediation itself belongs both to the inner and the outer, which is the realm of the unthought.

The conceptualisation of representation along the lines of an impersonal metaphysics of expression deviates so much from the Kantian formulation that Peirce will find it necessary to give up the term in favour of ‘interpretation’ (*W1 MS105* 1865, 257). It is the cosmic character of the process of interpretation is what eventually separates semeiotics from semiology. The disengagement of representation from consciousness and language and its co-articulation with the universal categories ‘I, Thou, It’ is already obvious in the table of 1866, which precedes their first transformation into Firstness, Thirdness, and Secondness in the ‘New List of the Categories’ in 1867. Indeed, as we may notice below, ‘representation’ begins to be slowly substituted with the uniquely Peircean terms ‘representamen’ and ‘interpretant’:

	<b>BEING</b>	
		Reference to a <b>Ground</b> Quality
<b>CATEGORIES</b>	<b>ACCIDENTS</b>	(Double) Reference to a Correlate/ <b>Object</b> Relation
		(Triple) Reference to an Interpretant/ <b>Subject</b> Representation/Interpretation
	<b>SUBSTANCE</b>	

**Table 2:** The Table of the Categories, 1866 (expanded version; *W1 MS133* 1866, 520)

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by another representation which the characterisation of orepresentation *as* instance captures (*CP* 5.253).

In order to comprehend the notion of the interpretant, we need to disregard, for the moment, the internal divisions of quality, relation and representation (here shown in the fourth column) and the distribution of their respective relations. We can clearly see that in this table, representation or ‘reference to an interpretant’ is merely one of the Accidents or the three universal conceptions between Being and Substance. At first blush, the naming of the three basic categories as such might be taken as inconsistent with our exposition of Peirce’s ontology of a self-determining absolute. Could it be that with ‘Being’ and ‘Substance’ we are faced with a relapse to an essentialist ontology of things in themselves and their accidents or phenomena? At this instance, the Platonic heritage of Peirce we have excavated in the previous chapter comes to our aid. Our argument is that after such an experimental take on the Platonic philosophy of topology, it is at least implausible that Peirce would simply return to a nature bifurcated into essences and phenomena. We need to keep in mind that the table comes after clear indications of what we have termed a Logic of feeling or a Logic of expression whereby the absolute immanently manifests itself in phenomena through the determinations categories ‘I, Thou, It’.

To appreciate the importance of the table we therefore need to see it as a consequence of this early metaphysics and not as an aberration.<sup>114</sup> Peirce is indeed clear that the table is about the aspects or elements of the phenomenon. But what are these accidents if there are no things in themselves? Where is their reality grounded? Peirce’s response is the final coup to the doctrine of the second world, of a realer than real horizon subtending phenomena: all these are *fictions* yet this does not mean that they are not real. At this point, we encounter Peirce’s second major philosophical affiliation,

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<sup>114</sup> In any case, there is ample evidence in the early manuscripts that a return to a logic of essence is not in question. With his characteristically sense of humour, Peirce denies to turn the interlock of the categories into a ‘transcendental orgy’ (W1 MS109 1866, 314).

which we consider to be an offshoot of his experiential cosmology. In a way reminiscent of scholastic realist masters and clearly bearing the signature of his early categorical division, Peirce posits that phenomena are fictions which are nonetheless purified from their ‘fictitious’ element (*W1 MS109* 1865, 312). In a metaphysics of expression, which is moreover a realist metaphysics, everything is a fiction or a construction of a self-fashioning Absolute where the ground of phenomena is merely their manifestation. The universe cannot be thought apart from its fictions, for fictions are not simply of things but they are things. To interject a statement inspired by Leibniz, fictions are indeed phenomena but they are ‘well-founded’ in the reality of a world that constructs itself in its metaphysical relations. We may therefore begin to see that what the cosmo-logic of expression or sense we have found operative in Peirce is leading up to is indeed a full-scale phenomenism but a phenomenism of a thoroughly realist streak that our philosopher in 1904 will idiosyncratically call ‘phaneroscopy’ – the metaphysics of the *phaneron* – or, in accordance to our current terminology, of the *sign* as appearing – whereby the latter is disengaged both from a ‘real thing’ it is supposed to correspond or a mind it is supposed to address (*CP* 1.284).<sup>115</sup>

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<sup>115</sup> Expounding upon our previous discussion of phaneroscopy, we may note that the definition of the doctrine as a study of the ‘formal elements of the phaneron’ (*CP* 1.284) sets Peircean phaneroscopy apart from Husserlian phenomenology insofar as it rids the former’s study of phenomena of the psychological or intentional hermeneutic element. Although not in direct reference to Husserl, Peirce is indeed very careful to exclude such remnants by refusing to make the ‘phaneron’ a cognate of the term ‘idea’ – at least in the sense the term ‘idea’ has acquired within English logicism. He writes:

English philosophers have quite commonly used the word *idea* in a sense approaching to that which I give to *phaneron*. But in various ways they have restricted the meaning of it too much to cover my conception (if conception it can be called), besides giving a psychological connotation to their word which I am careful to exclude. The fact that they have the habit of saying that "there is no such idea" as this or that, in the very same breath in which they definitely describe the phaneron in question, renders their term fatally inapt for my purpose (*CP* 1.285; original emphasis).

Again, although this comment does not pertain to Husserl, it is easy to see why Peirce’s logical

The insistence on the reality of fiction or construction gives us the opportunity, before we proceed, to address a structural difficulty concerning the categories, which we have mentioned at the end of the previous chapter. Even if we accept that there are only real phenomenal determinations, do the categories not reinstate transcendence? In a sense, it is true that the categories invoked at this instance by Peirce ‘transcend’ actuality insofar as they are called for by every determination.

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method cannot be the method of phenomenological reduction. From a Peircean perspective, one could argue that the Husserlian phenomenon has not fully severed its ties from the status of an ‘idea’ dependent on the fundamental structure of consciousness. Indeed, the problem for Husserl is to account for the passage from the phenomenal to the general. However, making of the passage dependent on the free variation of a consciousness severed from existence, which discovers universal concepts as hubs of invariance within itself, still operates on the level where phenomenal variation is subordinate to the human. Even though we are trying to find an immanent articulation of the transcendentals within consciousness, we are still operating on a level where phenomena ‘exist for me, and are for me what they are, only as objects of actual and possible consciousness’ (Husserl [1931] 1991, 99). Instead of presupposing this already existing activity of conscious variation, with the phaneron and the intuition that liminally constructs it, Peirce approaches the problem before the turn where intuition becomes recognition. As we have argued so far, his non-psychologism is exactly to be found in the extent to which the concept arises with the given in the practice of an intellectual intuition where arriving at a concept as a general structure of invariance is contemporaneous with an intensively differential felt continuity. Concepts *qua* signs are given in the insistent differentiation and hyperbolic movement of things themselves. In this sense, instead of having consciousness singling out and imposing structure in the variations between neighbouring phenomena, the neighbourhoods themselves generate the difference out of which consciously recognised generality emerges as a persisting habit. To repeat a point we have made in the second chapter, it is this superior understanding of intuition that makes it impossible for Peirce to use the term ‘consciousness’ in the usual acceptance of the term and this is what a clarification of phaneroscopy in a letter to William James in 1909 encapsulates:

[What] I call ‘Phaneroscopy’ [...], or a description of what is before the mind or in consciousness, as it *appears*, in the different kinds of consciousness, which I rank under . . . three headings . . . . *First*, ‘Qualisense’, which means that element of Feeling which consists in consciousness of the Quality of the Feeling, but omitting the element of Vividness, which does not alter the Quality (thus a faint memory of a highly luminous, and chromatic vermilion does not appear less luminous or less high colored, for all its dimness) and omitting all other concomitants of present feeling that are absent from a correct recollection of the same Quality. *Second Heading*: what I call *Molition*, which is volition minus all desire and purpose, the mere consciousness of *exertion* of any kind. *Third Heading*: the recognition of Habit of any kind in consciousness (*CP* 8.303; original emphasis).

We will return to how the above feeds directly into how Peirce’s conceptualisation of the faculties but it is already obvious that the emphasis on ‘what appears’ – a consistent theme in Peirce ever since the [*Treatise on Metaphysics*] in 1861 – sets the tone for a non-psychological and properly metaphysical phenomenology as that branch of semeiotic cosmology that studies the elements of the phenomenal sign beyond and before consciousness.

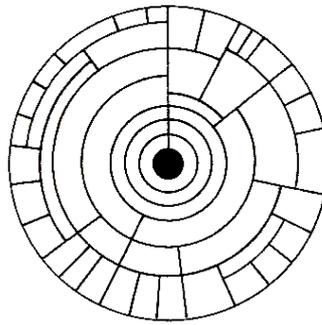
However, in such a sophisticated framework of self-creation, this transcendence or generality cannot be adequately characterised as ‘abstract’ or eminent. It is vital to keep in mind the terminology of precision we mentioned before. Precision means that no category can be engaged without the other categories also being engaged. Each simple category – which we may recall is incapable of definition – inflows uniquely into a concretion. Moreover, each category is itself whenever it inflows in an actual concretion. This is exactly what we are meant to understand by the ‘I of the I’, the ‘I of the Thou’, and the ‘I of the It’ (which later translates into the Firstness of Firstness, the Firstness of Secondness and the Firstness of Thirdness). All the while, we must not forget that the categories are fundamentally related to each other. They are the minimal definition of the realm of potential that does not *explain away* the experienced concreteness of an expression (be it a concept or a thing) but is merely demanded by the most mundane experiential concretion which, in turn, must be able to exhibit immanently the very intensive relationality which is presupposed by every actualisation. Here we find further proof of the basic principle that will define Peirce’s subsequent exploration into pragmatism: the three categories are required by determination or expression by each concrete Feeling or Image, thing or sign; they do not occupy a higher or purely intelligible world to which the mundane experiential must be traced to acquire meaning. The circularity of the diagram of the ‘IT’, which we have discussed previously, points precisely to the impossibility of schematising what is incapable of definition but necessary for each actual or phenomenal concretion.

Within such a framework, the importance of the interpretant vis-à-vis the categories hinges precisely on its peculiar relation to the conceptualisation of the categories and its very position in the table. To understand the interpretant we must first understand how these categories arise. It is interesting that the context supporting

the creation of this first classification is none other than the translation of the semeiotic register of expression into a theory of propositions. Nonetheless, we should be cautious to not confuse Peirce's expository gesture with the reducibility of expressive logic to formal logic. Again, far from indicating a semiological or linguistic orientation, the motivation sustaining this translation is rather to be found in a necessity for concreteness that we have seen Peirce to be well aware of. How else can one speak of an unnameable because only *felt* absolute? Within the framework of expression and provided that we bear in mind the metaphysical nature of Feeling, there is no objection to a method of looking for the categories that derives the latter from or 'functions of judgment' (W1 MS115 1866, 352). This is, after all, the only means we have to talk about the unconscious. Take for example a proposition of the form 'x is y':

'The ink is black'

Substance, Being and the Accidents correspond to the subject 'the ink', the copula 'is' and the predicate 'black' respectively. Substance – or 'the *very thing*', as Peirce calls it (W1, MS130 1866, 473; original emphasis) – is the most outward conception of the immediately present in general – in this case, 'the ink'. It is that which in a proposition is the subject and can never be anything else. There is, however, a caveat. Ordinary language forces us to characterise Substance as the subject of the proposition but, in more accurate terms, what we call Substance arises prior to the formation of the proposition. It is true that substance is a conception; the very utterance 'substance' implies that we have crossed over from the realm of the metaphysical unconscious to the periphery of consciousness and moving toward its centre. In other words, we have already transcended the unthought and have entered the realm of recognised sensation as this is the only way the passage to consciousness or the genesis of the concept can happen, which Peirce illustrates in the following manner:



**Figure 5:** The Circumference of Consciousness (*W1 MS133 1866, 516*)

And yet, treating ‘substance’ as a concept is a contradictory gesture. This is because, as Peirce puts it, Substance is simply ‘the impression being viewed subjectively or reflected upon as *being present*’ (*ibid.*). It therefore does nothing more than enable us to differentiate or discriminate the character of the fact from the fact itself; the unity it imposes on the given is the minimal unity of a ‘there is’ and not of a universal *a priori* concept. The full import of Substance, which is clearly articulated in the standard of Kantian reflective judgment, is evident when compared with the conception of Being.<sup>116</sup> Unlike Substance, which is the first conception or springboard of all thought, Being, which captures the copula ‘is/are/could be/would be’ is the last conception reaching the centre of consciousness. Although more deserving of the name ‘conception’, for Peirce, Being nonetheless introduces nothing into thought. The ‘is’ can only imply the infinite determinability of the predicate: ‘ink’ is the substance which has not yet been differentiated as ‘black’ and which the ‘is’ leaves just as it was seen, ex-pressing or concretising the confused feeling that accompanies it by the application of blackness to it. From this perspective, as Peirce notes, it is absurd for one to say that Substance *has* Being. Before being or non-being is applied to it, before

<sup>116</sup> Incidentally, the degree to which Peirce’s project resembles the logic of discovery of the concept that characterises the last *Critique* is evident in the title of the manuscript, which is ‘On a Method of Searching for the Categories’.

substance becomes determinate, it must cease to be substance (*W1 MS133* 1866, 518). Being is only applicable to the predicate, which is in turn the only element of the proposition that cannot be entirely indeterminate. For instance, the proposition ‘A has the common characteristics of all things’ makes no sense, whereas the proposition ‘x is beautiful’ may have an indefinite subject yet it implies the supposability of this subject. We thus have Substance and Being as the two extremes of thought, the beginning and end of all conception. Substance, as Peirce puts it, is inapplicable to a predicate, and Being is inapplicable to a subject (*ibid.*).

With the above definitions in place, we are in the position to come back to our original claim that Substance as the basic node from which the genesis of conception must pass to reach Being. As Peirce reminds us again the ‘New List’ in 1867, ‘[before] any comparison or discrimination can be made between what is present, what is present must have been recognised as such, as *it*, [...] this *it* is thus neither predicated of a subject nor in a subject’ (*W2 P32* 1867 p.49; original emphasis). Substance in itself is the metaphysical category of the ‘It’, which nonetheless escapes recognition. How, then, are we to characterise the nature of substance as concept? The answer Peirce gives is crucial in that it finally names the element that will distance him even further from the Kantian framework and will highlight his affinity with Plato even further: substance is a hypothesis, it is a ‘hypothetically *adjoined* element’ (*W1 MS133* 1866; added emphasis) which is assumed in order to *join* an otherwise incomprehensible *datum* to unity. As we will see, it is in hypothesis that the workings of the logic of junction as the union between discovery and construction, between the revelation of the unconscious in and its simultaneous expansion by signification, become obvious. But what does it mean for hypothesis to be at the basis of all conception, or more accurately, of the conception as sign? What is a hypothesis in the

first place? As the first question is directly dependent on tackling the second, the following section will be spent in clarifying Peirce's take on the theory of inference and its implications for specifying the nature of the sign. After this clarification, we will be able to lay the foundations for the argument that the logic of signs and the theory of inference develop side by side, eventually providing support for each other in a circular pattern.

## 2. 'Beware of a Syllogism'

This is the day for doubting axioms.  
C.S. Peirce (*W5 MS572* 1886, 292)

So far, our basic premise has been that Peirce's early grappling with the logical theory of inference as a direct consequence of his experimentation with what we have called a cosmo-logic of expression. As we intend to show, being part and parcel of this cosmo-logic (semeiotic) hypothesis facilitates not only the transition from a transcendental logic to a semeiotic logic but affects what formal logic, which Kant had delegated to a secondary status, can become.

In order to make this line of argument clear, we need to return briefly to the connection of formal and transcendental logic. As we have seen, Kant challenges the ability of formal or pure general logic to determine metaphysical matters as too abstract to account for the *a priori* ground of the discursive knowledge of objects, which is the province of transcendental logic. Yet despite the primacy of the latter, pure general logic remains of the utmost importance for the articulation of the critical project. Indeed, Kant relies heavily on the analysis of syllogisms to produce the famous

table or inventory of ‘the functions of unity in judgments’, which in turn makes possible the derivation of the categories (*CPR* A69/B94; A79/B105).<sup>117</sup> This derivation is the product of a deduction as the necessary form of inference that proceeds from the general to the particular – whereby we have the derivation of a result (a concept) from the subsumption of a case (judgment) under a general rule (principle).<sup>118</sup> For Peirce, however, this derivation suffers from its own implicit circularity – the table of judgments is not the premise of the transcendental deduction, as Kant claims, but rather its conclusion, which remains unprovable and hence problematic by the latter’s standards.<sup>119</sup> Such circularity, which to an extent is necessary to secure transcendentalism, stems precisely from Kant’s overemphasis on deduction. Evident both in his *Logic Lectures* and the first *Critique*, the value of this type of inference boils down to the following: as an inference of reason, deduction moves from the premise to the conclusion through a mediating concept that connects the premise and a conclusion not explicitly contained in that premise in a necessary manner.<sup>120</sup> This

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<sup>117</sup> The category of ‘Community’, for instance, is derived through disjunctive judgments, which presuppose that each disjunct belong to a common logical space or universe of discourse; accordingly, the category of ‘Causality and Dependence’ is derived through conditional judgments, which presuppose the relation of dependence of one thing upon another. We have here a clear logical classification of generalisations under higher order rules in the interests of the highest possible unity. This unity is expressed firstly in the understanding, which orders the manifold of appearances by means of a certain number of categories; and secondly in reason, which orders judgments into an even smaller number of ‘principles’ – namely, the universal *a priori* conditions that make possible the logical ordering of judgments in the understanding itself (*CPR* A299/B356; A305/B361).

<sup>118</sup> As it is known, the only caveat is that this deduction also be transcendental and not empirical as the latter would return us to the Humean argument Kant tries to avoid – namely, the impossibility of deducing metaphysical concepts from experience and the doubt over their objective validity.

<sup>119</sup> Admittedly, Kant had tried to avoid the circularity by claiming that ‘[a] proposition that is to become the principium of the possibility of inferences of reason cannot in turn be proved’ (*LL Hechsel* 98).

<sup>120</sup> It is known that in the *Lectures on Logic*, Kant defines an ‘inference of reason’ – a ‘*ratiocinium*’, ‘syllogism’ or ‘deduction’ – as ‘the cognition of the necessity of a proposition through the subsumption of its condition under a universal rule’ (*LL Dohna-Wundlacken* 771). Deduction builds upon inferences of the understanding, which, as we have mentioned in the

mediating concept is nothing else but the condition of subsumption of the conclusion to the premise and it is here that we may locate its allure for the critical project: in a way, the structure of deduction is tantamount to the model of subjection of the particular (conclusion) to the universal (premise) by means of an implicit third.

Having said that, we need to note the value of deduction for Kant goes beyond its structural affordances. Even more importantly, deduction offers a safeguard against ‘lesser’ types of inference, which belong to the power of judgment. As Kant ambivalently puts it around 1780, such inferences ‘actually do not belong to logic but really have no other place’ (*LL Hechsel* 109). The reason for this ambivalence is obvious: inferences of judgment, which are divided into induction and analogy, infer from the particular to the universal. In short, they have to draw on experience, which is

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previous paragraphs, in moving from the universal to the particular are the sequence of one judgment from another *immediately* – without an intermediate judgment [*absque judicio intermedio*] (*ibid.*). For example, in the inference:

*Major Propositio*: All bodies are divisible

*Conclusio*: Some bodies are divisible,

the second judgement follows directly from the first. In classical logical terms, the matter of the judgment – i.e. the given concepts ‘bodies’, ‘divisible’ – remains the same and the difference is only expressed in terms of ‘form’ – i.e. the determination ‘all; some’. There are, therefore, no more than two concepts (bodies; divisibility) contained in the inference. An inference of reason is distinguished from an inference of the understanding in that it effectively installs an intermediary judgment between the major proposition or universal rule and the conclusion. For example, in order for the inference ‘Everything composite is divisible. All bodies are divisible’ to hold, we need to refer the conclusion to a universal rule via a mediating judgment (*minor propositio*) that is the *condition* of the subsumption of the conclusion to the rule:

*Major Propositio*: Everything composite is divisible.

*Minor Propositio*: All bodies are composite.

*Conclusio*: All bodies are divisible.

This mediating or minor proposition is necessary because the two extreme judgments are distinct from each other *materially*. ‘Everything composite; divisible’ is the matter of the first judgment; ‘all bodies; divisible’ is the matter of the third judgment, but the two are distinct since without introducing the concept ‘being composite’, ‘all bodies’ does not occur in the concept of ‘everything composite’. We need a *mediating* third concept not explicitly contained in the conclusion in order to draw it as a consequence from the major proposition (*LL Hechsel* 89). The value of this type of inference, for Kant, is obvious: besides giving necessity in the conclusion and hence commanding agreement, the mediation appeals to our familiar ‘*conditions*’ of *subsumption* which literally buttresses the entire critical project. In other words, it demands that the *sensus communis* be grounded on *a priori* categories that have to be there in order for the subsumption of the conclusion to the universal to be possible.

Kant's major problem in the battle against the Humean challenge to the deducibility of universal categories.<sup>121</sup> By virtue of them being inferences *a posteriori*, none of them can either refer to or infer the necessity of the ground comprising the universal presuppositions of the possibility of all knowledge and experience. In moving from the particular to the universal, induction and analogy 'do not determine the object, but only the *mode of reflection* concerning it' (*LL Jäsche* 82). Failing to safely establish an *a priori* model of subjection of the particular object particular to the universal concept, such reflective judgments belong to the physical sciences and are therefore 'only crutches for human reason' (*LL Dohna-Wundlacken* 777).

It is clear that the ambivalence regarding the place of induction and analogy for a scientific metaphysics is not simply a comment on the potential of those inferences but a double, circular constraint placed both on logic and on science: if it is to be a proper 'science of reason', logic must contain principles *a priori*; every logic which resorts to rules from experience is no longer pure (*LL Prolegomena* 432); by extension, if science is to be pure it needs to '[rest] on principles *a priori*, from which all its rules can be derived and proved' (*LL Jäsche* 530). Whether or not this Kantian constraint also extends to the nature of logic and of science, besides their purity, is rather difficult to answer as despite his misgivings about their validity and his hierarchy of the sciences, Kant still reserves a place for them in his overall classification. Yet one thing, which is vital for our discussion as it runs counter to Peirce's cosmologic of expression, remains constant in Kant's work: there is no such thing as 'natural logic'. As he makes it clear, '*Logica est scientia. Omnis scientia est*

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<sup>121</sup> Induction is inference from parts to wholes; it concludes that what belongs to many members of a family, belongs to all members of that family according to the principle of generalisation; analogy, by contrast, concludes that two things partially similar are totally similar according to the principle of specification (*LL Dohna-Wundlacken* 776;777).

*artificialis*' (*LL Prolegomena* 432; original emphasis). It is this power of reason to produce artifices (in the form of transcendental categories) that gives it the right to be the 'lawgiver of nature' and establish a *scientific* relationship with its world.

The above framework is crucial for us to understand the conception of hypothesis in the Kantian system and Peirce's break from it. The interest of hypothetic inference as described by Kant is that, like the inferences of the power of judgement, it does not fit the ideal of a pure logic – at least not unproblematically. Although it is classified as merely one of the subspecies of the inferences of reason alongside categorical and disjunctive inferences, Kant wavers considerably about this classification throughout the *Logic Lectures*.<sup>122</sup> Inasmuch as hypothetical inferences are also deductive inferences of reason, they also have a defining principle. This is the principle of ground; in other words, that from which something can be cognised. This means that they either infer from the ground to the grounded in which case the consequences hold or they infer from the negation of the grounded to the negation of the ground (*LL Blomberg* 285). In this sense, hypothesis infers from the universal to

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<sup>122</sup> As the three species of deduction or syllogism are categorical, disjunctive, and hypothetical, it would be helpful to clarify the special principle underlying each of them to gain some insight into the nature of hypothesis. First of all we need to note that this classification is one of relation: the three kinds are meant to show how judgments interrelate within syllogisms (*LL Jäsche* 23). As Kant explains, categorical inferences of reason, of which we have already given an example above, infer according to the dictum of all and none. Their validity is proven in terms of the highest principle: 'What belongs to the mark of a thing belongs to all the things that are contained under it' (*LL Hechsel* 98). For instance, the judgment 'all bodies are divisible', is not enough to show that 'divisibility' is a mark of body; one has to find the intermediate mark 'being composite' and by means of this mediation we may infer that because 'being composite' is true of all bodies, 'divisibility' must also be true of all bodies. The mark of a mark must therefore become the mark of the thing. Disjunctive inferences, on the other hand, infer according to the rule that the disjuncts, no matter how many, must be considered to belong to the same sphere of a 'divisible cognition'. For instance, in the judgment 'All triangles, as to their angles, are either right-angled or acute or obtuse', the different members are opposed to one another but, taken together, they constitute one term. This is the major proposition from which we may then infer about a given triangle according to the principle of the excluded middle (*LL Vienna* 935).

the particular.<sup>123</sup> However, contrary to categoricals and disjunctives, hypothetical inference is by nature ‘extraordinary’ – that is, it relates two judgments and not two concepts in the premises (*LL Blomberg* 284). Furthermore, in hypothetical judgments only the consequence may be assertoric but its conditions are, properly speaking, problematic – we may connect two false judgments and still get a correct consequence (*LL Jäsche* 106). Hypothesis, then, is accompanied with the consciousness of the mere contingency or possibility of judging and of the possibility of its opposite and not its necessity – it cannot be apodeictic (*ibid.*, 66). Finally, hypothesis is formally incomplete: while admitting of a mediation between the antecedent and the consequent like any other type of deduction, hypotheses may require more than one concept for the mediation to be possible and the conclusion to finally hold. Compared to a categorical inference, the deduction in hypothesis may require an alarmingly increasing number of intermediary concepts. It is also in this sense that hypothetical inference is also not a formal inference of reason but a covert or cryptic one as it may leave out, though not necessarily intentionally on the part of the thinker, one or several mediating premises between the antecedent and the conclusion.

In effect, the abovementioned technicalities reduce to one basic point: hypothesis ‘[gives] allowance to fabrication’ – its problematicity is precisely to be found in that in not being apodeictic it is *inventive* (*LL Blomberg* 224). In one of the earliest lectures (in the 1770s), Kant will utter the challenge posed by hypotheses in a

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<sup>123</sup> It is easy to see that hypothesis already follows a categorical standard: categorical inferences seem to set the canon for the other two in an internal hierarchy. ‘All inferences of reason’, writes Kant, ‘must have as their basis the correct rule: that I can proceed from a *nota remota per notam intermediam* to the thing, according to the rule above: ‘*nota notae est nota rei ipsius*’ (*LL Hechsel* 101). In fact, to infer, for Kant, can only mean the movement from the universal to the particular. For it is only when a ‘deduction is certain and consequently is a positing’ (*LL Vienna* 934), that we may say the conclusion of hypothetical propositions can be called a proposition, in the first place.

way that surprisingly anticipates Peirce's formulation:

By means of hypotheses one does not always find what one intends, but instead frequently something else [;] one tries, one tests, assumes something, and investigates whether from it one can explain the known consequences or not; if the first occurs, then one accepts the hypothesis, if the latter occurs, one rejects it (*ibid.*, 223).

We already have here the very seed that will form the core of Peircean hypothesis or *abduction*, as it is most famously known, as a supreme example of what we have called a logic of junction. In effect, what Peirce will resist is the pitting of the inventive or constructive power of hypothesis against the revelatory character of deduction. The problem that will prove of crucial importance to the pragmatist venture will be precisely the one that Kant tries to avoid – namely, the problem of consequences. As Kant puts it, the more consequences follow from the antecedent, the more subsidiary hypotheses may be required resulting in a potentially uncontrollable process necessitating constant testing or experimentation to verify the original hypothesis. As we will see shortly, in this rather unwelcome side-effect of hypothesis, Peirce will find the very generation of novelty. Of course, it remains a fact that even for Kant, hypothesis is not to be discarded. Although the latter ranks hypothesis along with opinion and thus points out their arbitrary status, the difference between the two centres on the legitimacy of ground. An opinion is 'an incomplete holding-to-be-true based on insufficient grounds, from nothing can be derived'. A hypothesis is still a judgment about truth 'based on grounds that are sufficient', insofar as it may be springboard for other inferences (*LL Vienna* 886). Yet by dint of the potential proliferation of consequences, Kant is unwilling to accept it as a valid mode of philosophical inference. The mode of cognition that is closer to hypothesis is that of believing, not of knowing (*LL Blomberg* 233). Helpful as it may be, belief can never ascend to the status of science. A sufficient ground cannot be indeterminately

‘fabricated’ otherwise it is not sufficient. Indeed, since we cannot derive every possible consequence from a premise, the uncertain path of hypothesis can only establish a *probable ground*. Hypothesis can only approximate certainty – or what Kant calls ‘theory’ (*LL Blomberg* 222) – as it lies somewhere in between the requirements of *a priori* and *a posteriori* inference: on the one hand, we can secure acceptance only by confirming *a posteriori* consequences; on the other, the consequences must obey the *a priori* principle of reference to their ground. Like the Copernican system in astronomy, which Kant invokes as example, one can still maintain that the opposite hypothesis is possible but as long as the system agrees with phenomena of the heaven it still stands strong (*LL Vienna* 887). Being an analogue to certainty but not certainty in itself and reserved only for the psychical sciences, hypothesis is therefore deemed unsuitable for metaphysics.

The distrust toward hypothesis takes a more radical form in the *Jäsche Logik*, where, *as merely* probable, hypothesis will be demoted from the status of an inference of reason to become more closely affiliated with other types of empirical inference such as induction and analogy (which, strictly speaking, are not logical inferences but logical presumptions) (*LL Jäsche* 84).<sup>124</sup> It therefore remains ambivalent

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<sup>124</sup> In this last lecture, Kant takes a stronger stance regarding hypothesis. Contrary to earlier writings, he will assert that, in fact, hypothetical inferences of reason have no minor proposition or intermediary judgment. The only way to discover this mediation from the consequence of one proposition to the other is to translate the problematic condition of hypothesis into a formal and complete condition, namely a categorical inference. As such, it is even erroneous to suppose that hypotheses are inferences of reason or deductions in the first place: ‘Every inference of reason is supposed to be a proof. But the hypothetical carries with it only the ground of proof. It is clear from this, consequently, that it cannot be an inference of reason’ (*LL Jäsche* 75). Having been deemed inadequate for metaphysics, the newly established ‘immediateness’ (*ibid.*) of hypothetical inference from the antecedent to the consequent without any obvious reason finally faces us with a problem of classification. On the one hand, Kant is reluctant to assert that hypothesis only has a subjective validity or a purely empirical universality. Indeed, if hypothetical inference as a whole is uncertain, at least some of its elements must be apodictically certain – the possibility of the explanatory presupposition, the consequences, and the unity of the hypothesis must be certain for the hypothesis to hold. As

in Kant whether hypothesis is to be classified as an inference of reason determining the *object* of a judgment or as an inference of the power of judgment determining only the *mode of reflection* of an object. But, besides this indecision as to the nature of hypothesis as determinative or reflective, toward the end of *Jäsche Logik*, it becomes clear that we cannot even name hypothesis as ‘probable’. For as Kant himself rightly points out in his brief account of the nature of probability, probability is best reserved for mathematical cognition, where the enumeration of a class of homogeneous elements is in fact possible and where probability is meaningful as the activity of tracing the relation of insufficient grounds to sufficient grounds. Outside these mathematical contexts, however, such as philosophical cognition we may only speak of plausibility – of the weighing, in other words, of cognitions which heterogeneous in that their value is not numerical but contingent on their practical and subjective effect. Properly speaking, then, hypothesis is only ‘plausible’ (*LL Blomberg* 194).

Betraying a multitude of interlocking practical and philosophical concerns, the sheer complexity of Kant’s attempt to provide an adequate notion of hypothesis whilst clinging onto deduction is invaluable for comprehending the magnitude of Peirce’s placement of hypothetical inference in the basis of all conception.<sup>125</sup> Our

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per Kant’s example, we may hold magma to be responsible for earthquakes because such a substance is possible but we are less justified in holding that the earth is a giant animal, as he puts it, since this presupposition, besides being impossible, would endanger the tight relation of consequences by incurring the proliferation of subsidiary hypotheses for its justification (*LL Jäsche* 85). Partially because it clearly alludes to what we could generically term the hypothesis of vitalism, we consider this example to be a very fortunate instance in Kant’s discourse to which we will return when we touch upon the nature of hypothesis for Peirce. But for the moment, we need to note the discrepancy we detect in the Kantian view of hypothesis. For as much as the components of hypothesis need to be certain, as Kant demands, *qua* probable or a mere analogical of certainty, hypothesis is not deemed a categorical inference of reason (*LL Jäsche* 84).

<sup>125</sup> It is obvious that the crisis of reason – so expressly evoked by the critical project in terms of the problem of subjectivity against what would be a naïve natural philosophy – dovetails with an older and ongoing crisis regarding the claim to truth on the part of science, its internal divisions, and its largely problematic interaction with philosophy. We have shown a fragment

guiding light as we go into this gesture will be the correlation, exposed in the present juncture, of probable or uncertain inference with a logic of invention. By examining how Peirce elaborates upon the twinning of invention and hypothetical uncertainty, we aim to address both the question of what Kant's formal logic can become and to make a case for its inextricability from our main problematic of the genesis of the sign.

Like Kant, Peirce never questions the fruitfulness of logic for metaphysics. However, he locates a serious problem in elevating deduction to *the* mode of reasoning *par excellence*. 'Beware of a syllogism' is a maxim he never tires repeating, precisely on account of the idolisation and illegitimate exportation of deduction from mathematics to other fields, including physics and metaphysics (W1 MS128, 440-3). The problem with deduction is already obvious in the very geometrical inferences on which Kant had heavily relied to make the synthetic *a priori* claim. As we showed in the third chapter, not only do definitions, postulates, and axioms 'constitute a confused knowledge of space' at odds with topology but the passage itself from premisses of geometry to theorems requires a very great number of deductions none of which, when taken individually, amounts to much. Even as a sum, argues Peirce, these syllogisms do not add to our knowledge substantially but simply make it more refined or distinct (W1 MS126, 424). On this account, deduction 'has very little to do with the scientific process' (*ibid.*). Such a radical comment showcases not only the

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of this latter difficulty in the manner in which Kant, at least in his early lectures and the first critique, is eager to associate metaphysics with a particular vision of logic and of science whence the preference for deductive-nomological methods of reasoning flows. Let us mention in passing that by the time the first *Critique* reaches its apex, the debate about the applicability of the doctrine of chances and mathematical probability on inductive method of scientific inference is still raging, with the conflicting Lockean and Berkeleyan responses to the problem well in place and in anticipation of the conflict between probability enthusiasts De Morgan and Jevons and probability sceptic Boole. It is known that in one way or another, all these concerns do trickle down to Peirce, as well, yet we have chosen to distil the difficulty of hypothesis through Kant because it is with the critical project that the importance of re-metaphysicalising hypothesis is articulated.

extent to which Peirce is determined to challenge objective validity of deduction but its very value for science. For Peirce, the chemist and mathematician, neither is deduction proper to science nor are sciences reducible to mathematics. Scientific inference certainly transcends the limits of the finite; yet in doing so it ‘passes not a little but infinitely beyond the premisses’ (*ibid.*). Science is science not because it clarifies but because it radically amplifies our knowledge.

We will see in the following section how this view of science re-connects us to the Platonic line in Peirce’s thought. We now need to clarify briefly how this vision of science and scientific inference also involves a novel vision of probability. The first thing to note is that Peirce does not disagree with Kant when it comes to the distinction *per se* between objective and subjective probability – or plausibility. Yet despite Kant’s efforts to separate the two on account of mathematical evidence, the dependency between logic and mathematics is not clarified nor is the objective character of probability secured. All Kant leaves us with is an assertion of the impossibility of logic of probability and a preference for objectivity which nevertheless is suspiciously dependent on the golden standard of *a priori* deduction and is a hair’s breadth away from subjectivism and a decidedly silent Nature. The search for an alternative or extended notion of probability naturally leads Peirce through the extended debate regarding the exchange between logic, psychology, and the doctrine of chances, which as we have mentioned previously is briefly touched upon by Kant in the *Logic Lectures*. By the time Peirce begins his explorations of probability around 1865, there are already significant advances toward the very logic of probability that Kant had deemed impossible and Peirce will address almost all of the major figures in

the debate among which we can name Venn, Mill, Jevons, and, most notably, Boole.<sup>126</sup> As there is already a rich body of work detailing Peirce's interaction with all those thinkers, we will not be dwelling upon individual details here.<sup>127</sup> We will only briefly introduce into our thread the general flavour of the intersection between probability theory and logic in order to see how Peirce's intervention in the field dovetails with the reconfiguration of hypothesis as the basis of the concept and a cosmologic of expression.

With the Boolean turn to algebra, inductive inferential uncertainty will be evaluated in terms of a frequency interpretation of mathematical probability. The importance of such an interpretation for securing the validity of induction needs to be insisted upon. Describing probability as the algebraically determinable 'ratio of the number of cases favourable to [an] event, to the total number of cases favourable or unfavourable, all equally possible' (Boole 1854, 253), this school will practically export to logic an objective view of probability. This is the view that probability expresses the actual relative frequencies with which events themselves tend to occur in

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<sup>126</sup> Boole's argument is that syllogistic logic is 'not sufficiently fundamental to serve as the foundation upon which a perfect system [of science] may rest' (Boole 1854, 241). Setting aside the problems of induction and hypothesis, even in deductive syllogisms, a lot of problems result from the limited ability of formal logic to eliminate the middle terms connecting a major and a minor premise, in the case that these terms increase considerably. Yet no truly *a priori* science should stumble upon such difficulties. The candidacy for the true *a priori* will therefore be transferred onto algebra, where there is no problem eliminating great numbers of premises or terms and hence poses no such restrictions in the formulation of rules. From this angle, the rules of syllogism will be seen as special or limiting cases of more general algebraic-formal laws (*ibid.*, 8). For Boole, the superiority of these mathematical laws is precisely to be found in the fact that they are neither merely probable generalisations from induction nor deducible from an *a priori* subjectivity (*ibid.*, 4). Rather, their truth is manifest always and in every application. They consequently are considered as the true model and foundation of logical laws which must also make their truth manifest 'in all its generality by reflection upon a single instance of [their] application' (*ibid.*, 4). In turn, the non-psychologism of logical inference is secured through its reduction to algebraic laws, which are the 'ultimate laws of thought', in general, and not of any human in particular. This enables Boole to say that logic is 'susceptible of wide applications' but that 'its ultimate forms and processes are mathematical' (*ibid.*, 12).

<sup>127</sup> For a cross-reading between Peirce and those thinkers see Laudan (1981), Zabell (2005), Brunning and Forster (1997).

a given collective rather than the formation of subjective expectations about them.<sup>128</sup> In this way, the objectivity of the logical-probabilistic calculus is secured by mirroring a mathematical calculus that entails a more primary and objective reference to facts or events themselves. Despite Boole's proclaimed distance from the Kantian treatment of probability, the parallels are hard to miss. In place of *a priori* subjective deduction, we encounter the ideal of algebraic demonstration, which appeals to the same vision of objective probability as opposed to mere plausibility. But for their difference about which system is unpsychological – namely transcendental logic or algebra – both Kant and Boole agree that the empirical subject must not intervene. Furthermore, behind this demand we find the same view that science discovers an already established truth but does not invent this truth. As Boole puts it:

It is to be remembered that it is the business of science not to create laws, but to discover them. We do not originate the constitution of our own minds, greatly as it may be in our power to modify their character. And as the laws of the human intellect do not depend upon our will, so the forms of the science, of which they constitute the basis, are in all essential regards independent of individual choice (Boole 1854, 11).

It is ultimately dubious whether objective probability manages to rid itself of the spectre of psychologism or the *a priori* role that algebra now assumes. Nonetheless, the significance for philosophy of abandoning the security of subjective *a priori* demonstrative contexts is clear. For Kant, the truth of propositions, especially of a probable or inductive kind, is grounded on an *a priori* unity that is their condition of

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<sup>128</sup> For Boole, this means that whatever can be said of the probability of occurring events can be said of the truth of the propositions asserting that these events will occur. In his calculus, for instance, the traditional logical categories of quantity ('all', 'some', 'none') used in syllogisms are replaced with a continuous quantitative scale. In this scale, universal generalisations (affirmative and negative) are merely special or limiting cases of probabilistic generalisations. For example, the expression  $p = 1$  is used to indicate that the truth of the proposition 'the event  $p$  occurs' is certain, whereas  $p = 0$  indicates that the same proposition is certain to be false. We have, then, the ground securing the validity of probable inference: although the data must be taken from empirical observations, their distribution as true or false propositions is *a priori* secured by the probability calculus.

possibility and the formal law of nature. For Boole, however, the fact that all propositions assert relations among classes of events entails that their objective validity is grounded on the objective existence of such relations. If the mathematics of probability is the proper *a priori* it is because ‘[the] necessary sequence of states and conditions in the inorganic world, and the necessary connexion of premises and conclusion in the processes of exact demonstration thereto applied, seem to be co-ordinate’ (*ibid.*, 407). Not only does the condition of possibility of logical inference become Nature itself but the laws of this nature are probabilistic or statistical.

In this last conclusion, we finally find where the algebraic logic of probability begins to become interesting for Peirce’s metaphysics. Leaving aside for the moment the particular image of Nature the above view entails, we can say that the grounding of logical inference on mathematical laws is important to Peirce because it is concomitant with the demand that nature be able to speak for itself. It is precisely this niche opened up by the possibility of a vocal Nature that our philosopher will occupy in launching his own theory of inference and the sign. In agreement with objective probability theorists, Peirce will argue that ontological uncertainty and uncertain inference cannot be explained away – neither as dependent on a subjective *a priori* nor as an anomaly in our capacity to figure out an already determined universe according to the ‘necessitarian’, as Peirce calls it, aggravation of the critical position.<sup>129</sup> In this

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<sup>129</sup> In the *Monist* series Peirce traces the history of that line of thought, which he calls ‘Mechanical Philosophy’ (W8, 84-205). Starting with Galileo and Newton and the principles of mechanics, Peirce works his way into a criticism of Carus and Spencer, among others, and the unwarranted faith in ultra-rationalisation of the production of knowledge, which Peirce sees as a domestication of experimental thought. As he ironically puts it, according to Necessitarians:

the state of things existing at any time, together with certain immutable laws, completely determine the state of things at every other time (for a limitation to future time is indefensible). Thus, given the state of the universe in the original nebula, and given the laws of mechanics, a sufficiently powerful mind could deduce from these data the precise form of every curlicue of every letter I am now writing (W8 1891, 112).

way, our philosopher will refuse to indulge the methodological blackmail of necessitarian rationalism according to which there is either law or lawlessness. In themselves, the concepts of ‘force’ and ‘law’ and the conservation of energy, which necessitarians extrapolate from the field of dynamics upon the law of inference now posited as the ‘rigid exactitude of causation’, say nothing about the uniform necessity that must govern physical phenomena or logical inference. For Peirce, all dynamics confirms is the necessity of law; not that law is necessary. This is precisely the misunderstanding that the concept of the ‘third’, which we have so far examined in the form of the ‘Thou’ or the topological junction, is meant to rectify. Later also appearing in Peirce’s philosophy as the category of ‘Law’, the connective third is absolutely necessary, an irreducible category of Nature – it is the intensive liminal connection that assists the process of concretisation and re-potentialisation of any given thing. Yet the necessity

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For Peirce, no deterministic account will ever suffice to describe the ambient phenomenon of growth in nature and, to the extent that thought is in fact natural, in thought. The mechanical conception of law can never output an effect more diverse than its cause. Peirce spends a considerable part of his response to necessitarianism formalising and assessing the distribution of properties in ordered sets or sequences of objects (*CP* 3.605). Without entering into too much detail, we may say that the uniform distribution of natural laws which Necessitarians presuppose, demands a strict dependence between properties (say *a* and *b*, and their distribution *A* and *B*) without which no syllogism or law can be formed (*CP* 6.98-6.101). He opts instead for the fortuitous distribution of properties – ‘the very highest pitch of irregularity’ (*CP* 6.79) – which is no mere lack of regularity or what today would be known as mathematical independence or computable randomness but literally the ‘violation’ of a law’s distributive capacity and as such cannot be produced by necessitarian laws. At this, the Lucretian streak of his thought, to which we will turn in the final chapter of this thesis, is also revealed. Not only the case (the actualized second) but the law itself must evolve or diverge from its original course:

Whenever we attempt to verify a physical law, we find discrepancies between observation and theory, which we rightly set down as errors of observation. But now it appears we have no reason to deny that there are similar, though no doubt far smaller, discrepancies between the law and the real facts. As Lucretius says, the atoms swerve from the paths to which the laws of mechanics would confine them. I do not now inquire whether there is or not any positive evidence that this is so. What I am at present urging is that this arbitrariness is a conception occurring in logic, encouraged by mathematics, and ought to be regarded as a possible material to be used in the construction of a philosophical theory, should we find that it would suit the facts. We observe that phenomena approach very closely to satisfying general laws; but we have not the smallest reason for supposing that they satisfy them precisely (*CP* 1.132).

of the law is a necessity contingent upon the actual instances or inferences, ‘the particular state of things’ (W1 MS125 1866, 422-3). As we have stressed in the previous chapter, the law or the rule evolves *with* and not regardless of its ‘cases’. It therefore merely ensures that evolution happen – and sometimes that it happen with relative regularity – but does not limit it to a certain outcome that must moreover always be the same. As Peirce’s endorsement of the potentiality of the Idea shows, novelty is a metaphysical *sine qua non*; it is the free diversity of the first without which no expression or creation is possible. Correlatively, the law as a third must encapsulate this principle of growth; it is determining but not deterministic.

From this perspective, not only does the pseudo-scientific doctrine of necessitarianism that Nature operates syllogistically mistake the nature of logic but also the nature of the law, in general.<sup>130</sup> In any case, the question for science itself as Peirce conceives is never one of reconciling chance and determinism – this is to conflate science with authority. Whether indeterminism is or is not a coherent scientific option is to be gauged only in terms of the consequences of such a theory and not in terms of a previously established standard of rationality it cannot fulfil. The question is whether science should even attempt to reconcile chance and determinism in the first place. In this last question, we find both what connects and what separates Peirce from probability theorists. While Peirce acknowledges the value of mathematical tools

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<sup>130</sup> In his ‘A Theory Of Probable Inference’ in 1883, Peirce takes on the task of debunking this association, criticising it as anthropomorphic:

We usually conceive Nature to be perpetually making deductions in *Barbara*. This is our natural and anthropomorphic metaphysics. We conceive that there are Laws of Nature, which are her Rules or major premisses. We conceive that Cases arise under these laws; these cases consist in the predication, or occurrence, of causes, which are the middle terms of the syllogisms. And, finally, we conceive that the occurrence of these causes, by virtue of the laws of Nature, results in effects which are the conclusions of the syllogisms (CP 2.713).

Peirce will later say that the Universe is an argument (CP 5.119) but, as we have demonstrated so far, his ‘logic’ is so radically different from classical inferential logicism that it cannot be possibly confused with the necessitarian position.

manifesting a Nature that is vocal, not all aspects of objective probability theory will be kept. Despite the usefulness of the doctrine, ‘objective probability’, as Boole admits, is still ‘founded upon the assumption that the future will bear a resemblance to the past’ (Boole 1854, 24-5). For Peirce, such presupposed isomorphism between past and future is only another form of necessitarianism. Boole goes far but not far enough. Although disengaged from the subject, the latter’s image of Nature is still rigid, uniform, and run by a deep split into a changeful organic and a perfect inorganic part to which the intellect must aspire by ascending from a world of ‘changeful phenomena’ to general and ‘immutable truths’ (*ibid.*, 407).<sup>131</sup> While objective probability had started as an opportunity to affirm the ontological validity of indeterminism, the latter had degenerated into a concept of equipossibility or weighed probability presupposing the *a priori* calculability (mirroring Kant’s *a priori* conditioning) of experience in terms of its approximation of an immutable truth.

We cannot dwell further on Peirce’s full response to the claims of objective probabilists without straying too much from our focus on how our philosopher reconfigures Kantian hypothesis and what this means metaphysically for the definition of the sign. Yet it is easy to see why the above conception of probability, abiding by what appears to be an astonishingly canonical Platonism, fails for such a particular Platonist like Peirce. Offering no genuine metaphysical and scientific alternative either to necessitarianism or to the Kantian adherence to deductive logic,

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<sup>131</sup> Boole does briefly express his doubt about whether, in fact, Nature is a cluster of necessary and constant relations. Nonetheless the correlation between the two never doubted which ultimately settles his view to a necessitarian concept of nature. He writes: ‘It may possibly be a question, to which of the two series the primary application of the term ‘necessary’ is due; whether to the observed constancy of Nature, or to the indissoluble connexion of propositions in all valid reasoning upon her works. Historically we should perhaps give the preference to the former, philosophically to the latter view. But the fact of the connexion is indisputable, and the analogy to which it points is obvious (Boole 1854, 408).

objective probability theorists manifest the same blindness to the potentiality of the Idea, which we have argued to support Peirce's evolutionary cosmology. The route to genuine indeterminism and the genuine reconfiguration of fabrication as a logic of invention will therefore have to go through a reconceptualization of the law in thoroughly evolutionary terms that simultaneously avoid the bifurcation of nature. Our previous engagement with Peirce's logic of germinal continuity proves helpful at this instance. The law as the liminal third, necessarily involves and evolves the potential which persists from actualisation to actualisation. As such, as we have mentioned above, the only requirement is that the limit be crossed and not that it be crossed in such and such a way.

We will revisit the nature of the law in the final chapter of this thesis, where we will have the chance to offer a fuller account of the categories. We must now return to Peirce's engagement with probability in relation to how the latter affects his conception of deduction and hypothesis. It is clear that from the standpoint of a law that does not have to fit all the observed data or overdetermine particular outcomes – from the standpoint of indeterminism as a valid metaphysical and scientific alternative – deduction cannot be said to constitute the golden standard of all inference and method. Rather, the subsumption of cases under universal laws, as deduction demands, is merely a limiting case or special kind of probabilistic explanation. But as we saw, this probability is no longer confused with *a priori* possibility. From Kant, Peirce retains the possibility of grounding hypothesis though not on a subjective transcendental *a priori*. From Boole, he retains the possibility of a vocal nature and the benefits of a system of logical notation but does not accept the reduction of logical inference to a mathematical calculus of probabilities. As we will argue in the following section, it is because of this subtlety that he will attempt to steer his way through

Kantian and Boolean territory for a novel understanding of hypothesis. Yet we already have the answer to what formal logic will become in his work: between Boole's logic of probability and Kant's formalism Peirce's attention to the indeterministic metaphysics of generative difference that sensitive to the manifold relations between terms and inferences will transform formal logic into a logic of the relations involved in modes of inference which is moreover a 'natural logic' – the kind that Kant had judged impossible.<sup>132</sup> Carrying the implications of a free Nature, it is this logic that is at the heart of a reconfiguration of hypothesis as the basis of the sign. We now turn to the next section to flesh out the implications of such a logic for our inquiry.

### **3. The Experience of Hypothesis, or the Abductive 'Residue of Dreaminess'**

Which do you prefer; one of those ghost-like hypotheses about things-in-themselves which anybody can set up but nobody can refute; or a flesh-and-blood hypothesis that nothing prevents you from wrestling with and flinging it to the ground by any one of a hundred experimental tricks, except that, when you come to try them, they one and all unexpectedly turn out just the other way?

*C.S. Peirce (CP 7.370)*

Peirce's articulation of a natural logic of invention is first of all expressed by abandoning the Kantian hierarchy between categoricals and hypotheticals and by re-examining the relations between premises and conclusion in each case. As is the case with the logic of triads which we have been examining so far, the three modes of inference 'do not run into each other' (*W1 MS105 1865, 268*). Their relationship is

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<sup>132</sup> As it will become evident in the following section, we will be dealing with the logic of relations – or the 'logic of relatives' as it is most commonly known – only to the extent that it manifests in Peirce's cosmology and the broader triadic relations of the Categories and the modes of inference with one another.

therefore one of play and not subjugation. In the Lowell Lectures, deduction is defined as the inference which derives a result from the subsumption of a case under a general rule; induction as the inference which derives a general rule from an examination of a sample of individuals drawn from a population; and hypothesis as the inference which infers from the fact that an object possesses several traits characteristic of some class that it possesses all of the characteristics typical of that class as illustrated in the following table:<sup>133</sup>

<b>Deduction</b>	<b>Induction</b>	<b>Hypothesis/Abduction</b>
All M is P (Rule)	S is M (Case)	S is P (Result)
S is M (Case)	S is P (Result)	All M is P (Rule)
S is P (Result)	So, All M is P (Rule)	So, S is M (Case)

**Table 3:** Table of Modes of Inference

We can already see from the above table that hypothesis is not denied form. To speak Kantian, hypothesis is as much of formal mode of inference as much as deduction is. Furthermore, that hypothesis is formal means as much that it is a permutation of deduction as that deduction is a permutation of hypothesis. Yet beyond the superficial differences in structure, the specificity of each mode of inference implies a particular relation between the case, the law, and the result, which carries a deeply metaphysical significance. This relation – explained in terms of the relation of a subject with its predicates in a proposition according to an operation of implication – is exactly where the logic of continuous determination is lifted into a different level. Peirce enters this

<sup>133</sup> Granting that everything is probabilistic, as Peirce explains, ‘to Induction corresponds the conception of a Law, to Hypothesis the conception of a Case under a Law, and to Deduction the conception of a Result’ (WI MS107 1865, 302).

route through an explanation of the extension and comprehension of a term. We have already mentioned in passing in the second chapter, when discussing the comprehension of the ‘thing in itself’, that insofar a term denotes and connotes it cannot be said to be an absolute discrete individual. Whatever has comprehension and extension must be composite or continuously determined (*W1 MS129 1866, 461*). We are thus always operating on a composite plane of neighbouring spheres and contents.

<sup>134</sup> Summoning again the logic of manifolds, Peirce affirms that ‘in fact, extension and comprehension – like space and time – are quantities which are not composed of ultimate elements’ but are continuously and differentially determined (*ibid.*, 462).

In terms of the above, the specificity of deduction is that it establishes a relation of complete correspondence between the sphere and the content of a term. Its maxim is what a word denotes is what is meant by the word or whatever is contained in a word belongs to whatever is contained under it (*W1 MS129 1866, 459*). Such a relation presupposes that extension and content are inversely proportional. For instance, to say that whatever is contained in ‘human’ (animal, biped, etc.) belongs to whatever is contained under it, ‘C. S. Peirce’, means that the content of ‘human’ has increased by the term ‘Caucasian, male’ whereas its sphere has evidently decreased as it no longer is ‘every human’. Deductive distinction thus fails to introduce novelty or advance our knowledge, because such complete correspondence makes it impossible to ascend to universals, which is only possible by transcending the particular to the general (*ibid.*,

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<sup>134</sup> According to this logic, the highest terms are the broadest in sphere. If a term has too broad a sphere it may be said to have no content. The example Peirce uses is the concept ‘Being’. We can also take a term so low that it contains all content under but has no sphere – such a term is ‘Nothing’. ‘Being’ is all sphere and no content. ‘Nothing’ is all content and no sphere. The rule is the following: the higher the sphere, the lower the content; the higher the content, the lower the sphere. Yet taken to their extremes both terms re-introduce the fallacy of a simple, absolutely discrete term, which as we have seen previously is based on false notion of continuity (*W1 MS129 1866, 460-1*).

463). It merely *explicates* what is already *implied* in the premises.<sup>135</sup> On the contrary, in inductive and hypothetical inference, the relation between the extension and the comprehension of a term are quite different. In induction, we pick a sample from the sphere of the term. Whenever we find characters that belong to the whole sphere of that term, these constitute the content of the term. The maxim of induction is therefore that ‘whatever can be predicated of a specimen of the sphere of the term is part of the content of that term’ (*ibid.*). However, this principle is not axiomatic because the sample is random – namely, it is not selected from the sphere of the term according to a principle (for instance from a wider or narrower sphere). We nevertheless adopt it because the relation between extension and comprehension implied in induction adds to our knowledge: such a relation is not longer one of inverse proportionality but of an increase in either of the two without a diminution of the quantity of the other (*ibid.*) Induction is therefore an increase of the extension of the subject by addition of a term that becomes ‘equivalent’ to the latter (*W1 MS129 1866, 464*).<sup>136</sup>

Comprehending the increase of extension is crucial to understanding its metaphysical import, which will eventually usher us to the significance of hypothesis. First of all, we need to take the abovementioned ‘equivalence’ literally. For it is here for the first time in Peirce’s *oeuvre* that inferential relations are phrased in terms of a question of valence, or better, *value*, which enters the theory of inference as its ground.

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<sup>135</sup> Such explication is direct or indirect. We may say that explication is direct when it substitutes for a term what is implied in the sphere or extension of the term. It is indirect when it says that what is not connoted by the word is not also denoted by it.

<sup>136</sup> The example Peirce summons is that of a blind man. Supposing that this man knows that red is a colour and that certain things are red, if he is additionally told that no red things are blue, the property *non-blue* is added to the comprehension of red without the least diminution of its extension. This means that the comprehension of red becomes *colour, non-blue, while* its extension remains *A, B, C*. Conversely, if he be told that *D* is another yet red thing, the comprehension ‘*colour, non-blue*’ remains unchanged. The logic informing this relation is of particular interest: when the blind man learns that red is not blue, what happens is that *not-blue* becomes ‘*equivalent*’ to red (*W1 MS129 1866, 462-464*).

The importance of ‘equal’ value is that it betrays an understanding of the law of identity as secondary to the fact and law of inclusion. From the standpoint of inclusion, a term does not exclude whatever it is not: X does not exclude all that is non-X. Rather, a term has comprehension and extension because it includes or composes other terms and because it affirms the comprehension and extension of other terms that include or compose it. By adding to our knowledge, the metaphysical lesson and prerequisite of induction is that a term is fundamentally related to other terms which help compose its meaning and which may be otherwise not explicitly manifest in that term but are nonetheless the relata of a structure of which the term in question is a part. Identity, in this sense, is the result of an activity of ‘incasing’ that enables a term – any term – to emerge as an indivisible composite (*W1 MS129 1866, 464*). As Peirce puts it in 1866, ‘the process of getting an equivalent for a term, is an identification of two terms previously diverse’ (*ibid.*). But it is important, once again, to emphasise that ‘identification’ should not be misconstrued as flattening the difference into sameness. Peirce does not abandon the logic of continuous manifolds that is generative of difference. To revert to the vocabulary we have used in previous chapters, we are obliged us to think of identification as a ‘concretion’, a novel creation that returns us to the redoubling logic that we have argued to be the logic of a self-expressive absolute. Indeed, the emphasis on the generative capacity of finding an equivalent is unmistakable:

[Identification] is in fact, the process of nutrition of terms by which they get all their life and vigour and by which they put forth an energy almost creative – since it has the effect of reducing the chaos of ignorance to the cosmos of science. Each of these equivalents in the explication of what there is wrapped up in the primary – they are the surrogates, the interpreters of the original term. They are new bodies, animated by that same soul. I call them the *interpretants* of the term. And the quantity of these *interpretants*, I term the

*information* or *implication* of the term (W1 MS129 1866, 466-5; original emphasis).

The importance of the above passage for a proper understanding of the nature of the sign cannot be overstated. Appearing for the very first time in Peirce's oeuvre as a whole, 'interpretation' decidedly changes the tone of Peirce's excursion into representation and the indeterministic theory of inference by exposing it as part of the larger activity of enfolding value that is the very cosmo-logic of life and that requires no particular psychological explanation. That the *interpreted* and *interpreting* terms are animated by the spirit of this logic means that the novel composite that is the result of interpretation is not a simple aggregation of parts or terms but expressive determination by means of a novel value that both the newly individuated 'body' and the elements that compose it acquire.

We are thus returned to our characterisation in the previous chapter of this process of redoubling as a natural 'function': denotation and connotation – extension and comprehension – are the variables of a concrete term but their respective values are neither mere quantities nor confined to language. Rather, their value is measured with respect to the metaphysical role they play *for* the continuous becoming of novel concretions which is what the concept of '*information*' here expresses. In other words, information is employed to designate the way in which values are co-adapted or conjoined for the simultaneous creation of a concretion and its environment, which is the manifold totality of tones that are relatively empowered (to use the alternate meaning of value as 'valence') into existence. Furthermore, it is exactly because its value may vary with each adaptation, that each concrete term can be said to manifest itself as an *interpretant*: it can be said to *stand in itself* or realise itself as having its own value and simultaneously to *stand for* others *to* others in some respect or to realise the

modification of its value as it is co-opted by others in a vast and plastic arrangement of signs.

We need to retrace the steps of the convoluted path that we and Peirce have followed while examining the relations involved in different modes of inference. Contrary to deduction, which keeps the ratio of extension and comprehension in a state of equilibrium, induction fundamentally increases our knowledge. As we have just shown, this means that the relation of the two variables is no longer describable in terms of constancy or probabilistic uniformity but in terms of information, which is the enfolding of novel terms in the comprehension of a term through an interlock of value. This interlock, however, is none other than the very activity of interpretation as a natural process of creation and ‘nutrition’, of novelty. Having started with an examination of deduction and induction, we have thus come full circle to what is presupposed not simply by induction but by all inference – namely, the self-expressive power of the absolute or the unconscious. From this standpoint, we argue that the validity of induction is not to be judged by some ascent to the truth but again in terms of what it expresses, which is in turn tantamount to the process of ‘nutrition’ of terms: the fact, that is, of the sheer excess of connections that unavoidably comprise the vast cosmic network of interrelated values and created novelties. Indeed, writes Peirce, ‘[there] is no term, properly so called, which is entirely destitute of information, of equivalent terms. The moment an expression acquires sufficient comprehension to determine its extension, it already has more than enough to do so (W1 MS129 1866, 465). Germinal or differential continuity is always already there. Correlatively, a term is always already embedded in a giant network or neighbourhood of terms which means that ‘whenever we make a term to express any thing or any attribute, there is no way we can make so empty that it shall have no superfluous comprehension’ (*ibid.*,

467). There is always a residue of germinal difference or potentiality that enables novel relations and concretions. Peirce's particular choice of wording deserves to be looked at closely for it returns us to the root problematic of this thesis: 'we', as conscious subjects, cannot overdetermine the relations or value of a term. What a term 'means' for us is never divested of its own life, of all the alternative meanings that are potentially implied in it and over which we only have partial control. In becoming concrete, a term is an exemplification of a *de facto* relative continuous creativity, characterised by distributions of value that affect its environment and that are 'ours' inasmuch as we, subjects, are 'theirs'. This is exactly the point deduction fails to account as it is too localised and too static. The mind is forced by the very nature of inference itself to make use primarily of implicative inference in order to grow and in doing so it translates and renders explicit the movement of the unconscious, of the unthought in thought.

It is only now that we are sufficiently quipped to venture into the nature of hypothesis. Like induction, hypothesis is also to be evaluated in terms of an excess of connection. However, the conceptual leaps that it requires carry the consequences of this metaphysics of excess to a level that neither deduction nor induction can reach. The difference itself between induction and hypothesis is not simply one of degree. Whereas both increase the information of the term or a syllogism, induction is an increase of the extension of the subject whereas hypothesis is the increase of the comprehension of the predicate (*W1 MS105 1865, 271*). Induction is a strong argument as its objective probability indeed increases the greater the sample is. It is therefore the process by which we find the general characters of classes and establish natural classifications but does not explain why we find them (*W1 MS126 1866, 428*). Hypothesis on the other hand offers none of those guarantees. To be sure, it is the only

mode of inference that affords us any knowledge of causes and forces, and enables us to see the *why* of things. However, it does not give us the principle according to which things have a common character. Hypothesis literally asserts something that we have not even consciously observed – it is therefore the only true transcendence from the given.<sup>137</sup> It therefore extends our knowledge far beyond the limits of our ‘possible experience’, to put it in Kantian terms. ‘[The] essence of an induction’, writes Peirce in 1866, ‘is that it infers from one set of facts another set of similar facts, whereas hypothesis infers from facts of one kind to facts of another’ (*CP* 2.642).

The radicality of the distinction cannot be underestimated. Induction stretches to an infinite degree a valid syllogistic conclusion; hypothesis is inferred from premises from which no syllogistic conclusion is ‘valid’ because no probability is operative.<sup>138</sup> It should be obvious by now that unlike deduction, hypothesis stretches the non-isomorphism of premise and the conclusion implied in induction to a wholly new level. The question of the probability of a hypothesis is literally meaningless as the only true question being how much truth it contains. If a hypothesis is required, an indefinitely large number of facts may be necessary to be taken into account but that is exactly what ‘constitutes the truth of a hypothesis’ (*W1 MS128* 1866, 448). With this last point, the peculiar power of hypothesis comes to light: while it equally presupposes the superfluosity of relation – while it is one among the many interpretations – it is the only one that does not put excess into ordered sets, but is primarily creative of it. It is therefore simultaneously the by-product and the raw material of interpretation. Peirce writes:

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<sup>137</sup> For example, when we assert that light is ether waves, we assert something we have not seen, and something which can at no time know is *precisely* correct (*W1 MS126* 1866, 428).

<sup>138</sup> From the premises of the argument about light, which is a hypothetic inference, nothing follows syllogistically (*ibid.*)

*Hypotheses non fingo*, said Newton, striving to place his theory on a basis of strict induction. Yet it is hypothesis with which we much start; the baby when he lies turning his finger before his eyes is making a hypothesis as to the connection of what he sees and what he feels (W1 MS106 1865, 283).

It is clear in this remarkable moment in the early writings that hypothesis cannot be simply said to increase our knowledge or to have anything to do with knowledge, for that matter. Being simultaneously the by-product and the raw material of interpretation hypothesis is shown here to operate at the limit of conscious cognition and it is this liminal nature that distinguishes it from the a posteriority of empirical induction. Hypothesis derives its truth experimentally or experientially as a risky and supremely creative leap of faith that moves from the whole to the part and not from a conscious accumulation of observations. Nobody can prove that a hypothetical conclusion ‘logically’ (unless by logic we mean the logic of expression) follows from the premises. Hypothesis remains the conclusion of premises unknown to consciousness. Insofar as it is the *prius* of what is given, which is the immediate matter of consciousness, it remains unconscious – an *abduction*, as Peirce also puts it. Insofar as consciousness redoubles on the matter it finds and reaches by conclusion that abduction is the *prius* that it requires, it conceives *a posteriori* an unconscious given *a priori*. Once again, Peirce’s perspectival 1861 schematisation of the division of Images resurfaces to justify the nature of abduction a supremely empirical or metaphysical curvaceous surface: it is an *a priori/a posteriori* where the isomorphic relation of reason and consequents collapses as it gives way to an unconscious which becomes conscious of itself through us (or anything else) as a result. Induction may be said to extend our knowledge and deduction to make it distinct. Prior to knowledge, however, abduction ‘[gives] us our facts’ (W1 MS106 1865, 283); it is the non-human constructive operation of the junction that is constitutive of subjectivity itself in which the infinite is

simultaneously revealed and constructed.<sup>139</sup>

It should be obvious by now that the interest of abductive inference is not merely speculative. But neither is it practical, at least in the Kantian acceptance of the term. As we have argued, abduction challenges the very distinction between subject and world that enables Kant to make practical interest and interest of reason in the first place. As the construction of facts, hypothesis makes a difference for life but this life is not necessarily restricted to the human. Abduction expresses a ‘practical’ interest by which the entirety of the universe, reconceived as a living and inherently interested Nature, propels itself forward. Its necessity is therefore contingent on the presence of something that matters – of a manifold that intrudes reason and at the same time gives reason something to hold onto and of which it is impossible to give an abstract definition other than that it is what reason needs to evolve. In order to evolve thought must start from concrete and contingent things from the beginning.

Although there is no indication that Peirce’s writings on abduction are written with Schelling in mind, we cannot help but note the surfacing of a connection. As for Schelling so for Peirce the necessity of the concept is not *a priori* guaranteed

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<sup>139</sup> The difference between Peircean and Aristotelian abduction is evident precisely on this point. As far as Peirce is concerned, Aristotle’s ‘abduction’ or – ‘reduction’ as the Greek *apagoge* is often translated – is indeed a mode of inference that is different from deduction and induction in that it requires a middle term without which the conclusion is not possible but which nevertheless does not guarantee the correctness of the conclusion. As Aristotle claims:

We have Reduction when it is obvious that the first term applies to the middle, but that the middle applies to the last term is not obvious, yet nevertheless is more probable or not less probable than the conclusion (*Prior Analytics* 69a 20ff).

As per Aristotle’s example, to claim that ‘Morality may be taught’ requires a middle term between ‘morality’ and ‘teachability’, namely ‘knowledge’ of which we are certain that it can be taught. The syllogism therefore becomes: ‘Morality is knowledge; Knowledge is teachable; therefore morality is teachable’ (*ibid.*). Yet in Peirce’s view, Aristotle goes only so far as to formally express this syllogism as a variant of deduction. This is the reason behind the following statement:

Abduction, in the sense I give the word, is any reasoning of a large class of which the provisional adoption of an explanatory hypothesis is the type. But it includes processes of thought which lead only to the suggestion of questions to be considered, and includes much besides (*CP* 4.541 Fn P1 p 428).

nor empirically derived from actual beings but borrowed from these concrete beings which exist. Concepts are always only demanded by the ‘there is’, which puts forth a principle of contingent as opposed to sufficient reason. To recall the words of the great post-critical thinker, where we have found the inspiration of calling Peirce’s philosophy a philosophy of un-reason, ‘what we call the world, which is so *completely contingent* both as a whole and in its parts, cannot possibly be the impression of something which has arisen by the *necessity of reason* [but] contains a *preponderant mass of unreason*’ (Schelling, [1833-1834] 1994, 35; original emphasis). Again, we are the farthest from the Hegelian pure and empty conceptual necessity, which precedes and pre-empts actual existence. In our view, this is precisely the lesson and the demand of Peircean hypothesis, the contingent necessity of which is not to be confused some sort of necessary contingency. Let us repeat again that we are not speaking about the pseudo-contingency of probabilistic calculation. Rather, we are speaking of a metaphysical constructive contingency that exposes a world always in process of being formed beyond the intervention of the concept.<sup>140</sup> The impulse that abduction embodies is therefore simultaneously the desire of Nature to determine itself and the foundation of what we have been calling a cosmology of un-reason.

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<sup>140</sup> We might note, in passing, that the Schellingian-inspired contingency of necessity we consider Peirce’s abduction to exemplify is nonetheless not the necessity of contingency as it has been recently articulated by Quentin Meillassoux in his work *After Finitude* (Meillassoux, [2006] 2008). What Peirce would find untenable is Meillassoux is the latter’s methodological insistence on *deducing* a philosophy of facticity whereby he arrives at a *logical* proof of absolute contingency vehemently posited as anti-metaphysical. From the perspective of Peirce’s abductive philosophy, which sees thought as *necessarily* generated in and through *contingent* facts, such an adherence to deduction is merely reproducing a false concept of absolute fortuitousness, which seeks to present itself as anti-dogmatic by denying all purpose to the change of things. As we will see in the last chapter of this thesis, it is precisely this latter tendency (which he calls Tychism) that Peirce will try to avoid with his doctrine of Synechism or Agapism, which we find closely linked to Schelling’s contingency of necessity.

### 3.a. Reopening the Question of Practice

We need to note that the importance of hypothesis or abduction is not simply articulated with regard to metaphysics. Abduction redirects us one more time to Peirce's engagement with classical philosophy and how the latter affects his conception of science. Indeed, the superfluity of connection manifested as the operation of the unconscious is simultaneously the means for approaching the cosmic question and 'the fundamental secret of the logic of science' (*W1 MS129* 1866, 465). 'The puzzle of the validity of scientific inference', writes Peirce, 'lies merely in the superfluous comprehension and is therefore entirely removed by a consideration of the laws of *information*' (*ibid.*, 467). Thriving on those modes of inference that increase knowledge, science cannot refer to a dynamic advent to the truth or an uncovering of the 'real' substratum of phenomena.<sup>141</sup> Reconfigured as expressive or abductive at its essence, logic teaches one to 'expect some residue of dreaminess in the world, and even self-contradictions' (*CP* 4.79). Accordingly the work of science, which makes use of logical interest, is not simply to order the excess of connections but also inevitably to create new ones, to select elements and aid the invention of novel concretions with which it must then experiment.

As we argued at the end of the previous chapter, if science invents and verifies new facts it is because nature invents itself. It is from this perspective that, while science depends on a cosmo-logic of abduction and on hypothetical intuition or instinct, it nonetheless does not depend on formal logic. Formal logic is merely a crystallisation of generative relational continuity into a spatial and temporal structure

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<sup>141</sup> In a letter to Abbot, Peirce writes: 'I do not think that physics has any pretension to have got down to the bottom facts, the absolute subjects of appearances at all' (*W5 L1* 1886, 280-1).

of linearity (evident in deduction), which it then tries to generalise and impose onto the real. But with Peirce's logic, we may disengage formal logic from the false demands of a presumably risk-free rationality and finally answer the question of what formal logic can become: in place of the classical geometers' conception of logic upon which Kant relies, we may begin to have a logic of relations, which is inherently 'risky' and 'much less definite' as it is predicated on the reopening of hitherto closed spatiality and temporality to the non-linear stream of unconscious connections or interpretation which science (as well as metaphysics) may render conscious, as Peirce's own logic of relatives does, but not exhaust or explain away. What Peirce calls 'interpretation' is multiply important: on the one hand, it presupposes and activates a vision of natural cosmo-logic but this activation is inseparable from employing a method of thought we have called 'pragmatic' and from summoning a novel conception of science which, in the previous chapter, we defined as aesthetic 'practice' – the very essence of an experimental mode of thought.

We will not be dwelling extensively on Peirce's account of the various sciences. But having laid bare the elements of abduction, we are now in the position to clarify further this pragmatic basis of science. The definition of science as abductive in its source should not be taken to imply that it is an exercise in relativism. Again, abduction is as much constructive of Nature as it is revealing of it. The movement of construction and revelation meet upon the ground of the natural process of junction. Peirce, then, denies neither the scientist's search for truth nor the objectivity of the scientific endeavour. It is not objectivity *per se* that is attacked but merely its reduction in a matter of agreement with a reality outside it. That a scientific fact is constructed or hypothesised does not make it any less real or valid; nothing in the process of hypothesis is arbitrary. Rather, we consider Peirce to raise the question of science on

its proper ground. The problem is not one of knowing the truth or the impossibility thereof but of asking about how truth is expressed or produced in hypothetically established ‘facts’. Indeed, Peirce admits, pragmatism has no more accurate definition other than that ‘it is a sort of instinctive attraction for living facts’ – a veritable logic of abduction (*CP* 5.65; *CP* 5.195). Quite explicitly, and based upon a cosmology of a self-expressive Nature, the practice of inquiry does not aim to define truth but to experiment with its various concretions and their manifold consequences or effects. In doing so, it ‘allows any flight of imagination’ insofar as this imagination may unconsciously connect with other concepts and give rise to further explanatory hypotheses (*CP* 5.196).

The fitness of a hypothesis has therefore less to do with how well it explains the facts than with how it fulfils its function or, as Peirce calls, its ‘end’. With the question of the end of hypothesis we may finally reopen the question of habit, which in the second chapter we examined briefly when we discussed the concept of insistency. As we may recall, we traced the Peircean concept of insistency both in terms of the topo-logic of hyperbolic continuous manifolds and in terms of the philosophy of topology, which articulates an adequate metaphysics of the topos as simultaneously potential, intensive, and actual. We found that, for Peirce, a phenomenon insists throughout its immediate neighbourhood (conceived as an infinitesimal open interval) and may therefore be said to endure throughout a manifold of phenomenal connections in varying degrees that involve the possibility of this phenomenon actually perishing. But inasmuch as the phenomenon is relatively determined to endure through changes in its intensity, it may be said to be or embody a settled habit, a tendency to endure that projects the actual phenomenon to the future. In this sense, the habit is literally the law that determines that an individual be an

individual (*CP* 1.348) but its virtue – which we demonstrated to be the connective ‘virtue of Thirdness’ already enfolding a potential First (*CP* 1.390) – is that it does not demand that it be taken in the same way always. Habit is the purposiveness or will of Nature to express itself concretely – it is therefore necessary in principle and not in actuality. In this sense, we may say that the end of hypothesis is to aid the formation of a habitual pattern, a safe explanatory ground, but without negating the possibility that this ground may be reconfigured. Hypothesis literally invents or ‘clears out’ a habit-territory. This is what we consider to lie behind the famous maxim of pragmatism of ‘rendering our ideas clear’ (*CP* 5.206; 8.191). The point is not to neatly separate ideas from one another in a rationalist progression of thought but to acknowledge and cultivate the metaphysics of their unconscious continuous connection. Like induction and deduction, abduction is itself a ‘third’, an habitual inference bringing a result to consciousness; but unlike them, hypothesis is closest to the unconscious limit that must be crossed for the passage to manifest in a concretion (*CP* 2.711). Such is the core of Peirce’s philosophical method, whose aim is to restore the validity of hypotheses *qua* hypotheses. As he puts it, ‘this is *all* that the maxim of pragmatism really pretends to do, at least so far as it is confined to logic, and is not understood as a proposition in psychology’ (*CP* 5.196). As we will see in the final chapter, this is also the very basis that enables him to avoid the strictures of anthropology and qualify his pragmatism as fully cosmological.

#### **4. The Semeiotic Impulse**

In the previous section, we attempted to define pragmatism as a practice

for producing and testing novel facts and truths which begins with hypothesis not simply as the methodological basis but also as the result of Peirce's cosmology. But we must remember that we first encountered the riddle of hypothesis in the beginning of this chapter when we tried to find out what becomes of representation in Peirce's ontology of a self-expressive absolute. We are now in a better position to understand what Peirce means by positing that hypothesis is the basis of all conception: to say that the concept is the product of a hypothetical experimentation is to say that it serves a vital interest. 'Substance', which as we saw in the table of 1866 is the first concept, is necessitated by the existence of the *there is* that commands attention. The concept rises upon experience and not before or after it. It is the product of a hypothetical experimentation rather than of a synthetic judgment. Being contemporaneous or immanent to experience, it confirms the insisting or enduring manifolds of neighbouring living facts. As a fact, a 'Concept is a Sign' (CP 8.305) or a manifestation of cosmic action, which finds in itself its own reason and finality.

It is from this perspective that we can resist a merely semeiological analysis of the table of the categories.<sup>142</sup> To be sure, the categories and the accidents are all abstractions. If we take Being to be the highest degree of unity and hence the first category, Quality is the second category and the first order of mark of the predicate; Relation is the third category and second order of mark of the predicate; Representation

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<sup>142</sup> Interestingly, whereas one would expect Peirce to work his way from Substance to Being, the order of exposition is not by dint of a gradual passage from the periphery to the centre, which, as we have seen, is the way of hypothesis. On the contrary, having established the unity of Being and the 'I think', Peirce works his way back to Substance by way of induction. This gesture should not be taken to contradict our argument about the primacy of Substance and hypothesis as the genesis of the concept. As Peirce confirms, 'the necessity [of the hypothesis of substance] is the first law of the understanding and its product is the first category' (W1 MS113 1865, 331). However, we have seen that the way 'downward' (as portrayed in the table) is the way of the fluidification of the concept; the closer we get to Substance or the periphery of consciousness, the less sharp our conceptual tools. Reverting momentarily from the order of genesis to the logical order of application is necessary only because with the more crystallised general notions it is easier to comprehend the differentiations at less general levels.

is the fourth category and third order of mark of the predicate (W1 MS113 1865, 331-6).<sup>143</sup> Put inductively, whatever is is of some kind; whatever kind any thing is, it is in regard to something else; whatever is of a certain kind in comparison to another is so for somebody or something else. Yet none of these abstractions are merely projected upon a mute reality. With hypothesis and interpretation, Peirce has already destroyed the pillars upon which such a projection would be justified – namely, the abstract, the subject, and the diametric localisation of the concept and the thing.<sup>144</sup> Rather, these abstractions are aspects of a world as a self-evolving system of signs that do not enable one to subject one's environment but to construct and be constructed by it. The baby

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<sup>143</sup> By a mark of the 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> order Peirce gives another yet illustration of our familiar topo-logic of folding whereby a state of things presupposes and involves one thing, two things, or three things. For example, a mark of the second order determines the subject in two ways: first, it determines the subject to relate to a certain object and second, to relate to a certain respect. It thus consists of two marks of the first order which 'are essential to each other' – namely: 1. A mark which the subject has in common with the correlate and 2. The distinction which the subject has from the correlate. Peirce's example is the following: "on my right hand" consists 1<sup>st</sup> of being relatively to *me* and 2<sup>nd</sup> of being at the right hand' (W1 MS113 1865, 324-5). By extension, a mark of the third order involves two more things besides the subject; first, it determines the subject to stand in a certain relation to the first thing; second, to stand in a certain relation to the second thing; and third, to stand in such relations to the two in such a way that these relations involve each other. This is what distinguishes it from the second mark and gives us a precious illustration of the irreducibility of Thirdness to Secondness: 'otherwise', writes Peirce, we should have merely two marks of the second order and not any of a different order' (*ibid.*). A third mark thus consists of three mutually enfolded second marks each of which must involve two first marks. According to the above, the third mark consists of: '1. Being relatively to A, 2. Being of kind of a, 3. Being relatively to B, 4. Being of a kind b' (*ibid.*).

<sup>144</sup> It is because of such problems that are of little use to metaphysics that Peirce will eventually to completely slough off Substance and Being from the categories shortly after the 'New List of the Categories' in 1867. The motive, as will become apparent later, is the very fact that these terms are more static than Peirce would like them to be. Accordingly, as they will not adequately reflect differential continuity they, will be abandoned. Yet, we argue that even in this early stage, the internal relationships between the accidents and the categories, already reflects the much more sophisticated usage of the terms by Peirce, itself concomitant with a logic of sense. First of all, it is made clear that being and substance although basic, cannot be thought apart from their accidents. To repeat a point we made before, ontologically, the tie is never broken. Substance and being are not there to ground the accidents by transcending them. Rather, it is made clear that they are relative to the accidents and in need of them to make sense. The order of exposition then, should not be taken to imply a clear-cut hierarchy. Indeed, as Peirce derives the categories, such a hierarchy is literally impossible – or rather, merely perspectival.

making the hypothesis transcends the situation albeit uncritically. These abstractions, then, are fictions, but, they are well-founded in the activity of hypothesis demanded by the world.

The first consequence of this premise that quality cannot be defined as inhering in a substance, relation cannot be taken to be merely spatial, and representation, as we saw, is not merely agreement. Quality is a species of abstraction that may apply indifferently to several facts; for instance, we may speak of the blackness of a stove, of a cloth, and of a crow. The abstraction of quality is indispensable: we cannot comprehend an agreement of two things unless it is an agreement in some respect, and this respect is such a pure abstraction as blackness. Yet it follows from the nature of Quality as character that it is necessarily co-dependent on other qualities. A quality would not be this or that specific character were it not in comparison with some other character that it is not. For instance, that a flower is red also means that it includes all the other colours that it is not: it is red relatively to something that is a different colour – this is the realm of Relation or Act (*W1 MS113 1865, 335*).<sup>145</sup> Attention to Peirce's wording is crucial to comprehend Relation: in real relations, the determination of the two things or correlates is mutual. The things, in other words, must determine each other, for otherwise we should only have merely two marks of quality and no mark of a different order, which is relation. Yet as is the case with Quality that demands Relation so does the latter, which invokes two things, imply the existence of a third term. For instance, to consider the letter L as different from the letter Γ, we need an intermediary rotating image to represent the difference or likeness. Between the 'murderer' and the 'murdered person', we need the act of murder to

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<sup>145</sup> Later Peirce will refine his terminology, calling Secondness 'reaction' and Thirdness 'relation'.

connect the two. In other words, corresponding to every relate there is a correlate but this correspondence itself is the Mediation between the two, which becomes the third mark; it is thus ‘a mediating representation which represents the relate as standing for a correlate with which the mediating representation is itself in relation’ (*CP* 1.553).

With the above in place, the character of each accident is defined by a specific reference: Quality is reference to a ground or general essence; Relation is reference to an object that is different from other objects object; Mediation is reference to a subject or interpretant that is now reconfigured as a mediating relation between objects. Inasmuch as the three accidents interlock, the three references are also interimplicated. Leading us back to our familiar metaphysics of the junction, the particular interest is the nature of such interimplication. In a top-down or inductive approach quality can be abstracted from relation and relation from mediation, thus creating a system of dependency of the lower concept to the higher concept. This gives us the structure that is so characteristic of Peirce and which we encountered when discussing the permutations of the ‘I, Thou, It’ categories. If quality is the first mark, relation the second, and mediation the third, quality remains 1, but relation is a 1-2 and mediation is a 1-2-3 (*W1 MS130* 1866, 476). Quality is indeed at the top of an ascending order, in which each accident is more general and hence prescindible from the lower accident. The route of hypothesis, however, which is the route and expressive logic of genesis, comes to counteract any confusion of such order with hierarchy. The placement of quality is in the summit, does not make it more fundamental than any other accident. On the contrary, the route of hypothesis demands that each accident, each member of the triad, be determined as producing its own reason. In this sense, although it includes Quality and Relation, the Interpretant is not a mere ‘compounded conception’. Again, the logic of numerically or discretely defined compounds is non-

applicable here. The interpretant is as simple and elemental as the previous two accidents. Indeed, as the route of hypothesis shows, mediation is indispensable: closer to the ‘there is’ and therefore primarily unconscious, reference to the interpretant or the interpreting subject itself renders possible and justifies comparison and quality.<sup>146</sup>

As the supreme manifestation of continuity, the interpretant indeed establishes a connection between an idea-impression to another impression or conception. But this very act of addressing or appealing to which requires the subject, as Peirce notes, is ‘unanalysable’; there is nothing more to be said about the interpreter other than that as a third term it is literally the ‘purpose, effect, or actuality’ of the relation itself; for ‘if nobody should make the comparison the comparison would not be made’ (W1 MS113 1865, 335). Co-emerging with its hypotheses, the interpreting subject is not *a priori* or transcendently necessary; rather, its necessity is *contingent* on the circumstances that demand the hypothetical translation of something into something else so that this something else become ‘a new body’ in favour of a vital interest that is prior to the subject itself. As Peirce confirms, interpretation is ‘an act we, in fact, suppose everything to perform, whether *we* attend to the circumstance or not’ (W1 MS133 1866, 523; added emphasis). In other words, it is because of the primacy of the vital or practical interest of nature that expresses itself in a logic of invention that the subject may fabricate itself as such.

It is at this point that we have the clearest manifestation of the effects of an expressive ontology or Logic of expression on what had hitherto been declared as ‘subject’. Peirce’s take on the matter is quite unambiguous:

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<sup>146</sup> As Peirce rephrases in the *New List* in 1867, the irreducibility and indispensability of interpretation lies in the fact that ‘the reference to an interpretant arises upon the holding together of diverse impressions and therefore it does not join a conception to the substance as the other two references do but unites directly the manifold of substance itself’ (W2 P32 1867, 54).

This *subject*, which must not be supposed to be a mind though it may be a human representation, and which is only that which is determined by the representation to agree with it in its reference to the object on that ground, – this subject is an abstraction which philosophers have left too much out of account’ (W1 MS113 1865, 335; original emphasis).

From this perspective, the ‘somebody’ to which a relation refers might just as well be another ‘something’. Redefined as an interpretant, Peirce’s subject dispels the anthropological illusion once and for all as it is simply a position any-thing can occupy. Such is the definition of representation, which is now to ‘be understood in a very extended sense [and] which can be explained by instances better than by a definition’ (W2 P32 1867, 54). Let us quote Peirce’s beautiful example:

Everything may be comprehended or more strictly translated by something; that is has something which is capable of such a determination as to stand for something through this thing; somewhat as the pollen-grain of a flower stands to the ovule which it penetrates for the plant from which it came since it transmits the peculiarities of the latter. In somewhat the same sense, though not to the same degree, everything is a medium between something and something. Everything has a relation to something which relation has a character which corresponds in some degree to the relation of the first thing to something [...] That to which a thing stands for something is that which brings the thing into comparison with that for which it stands (W1 MS113 1865, 333).

Thus exposed as the inherently purposive activity of nature, the interpretant emerges both as the consequence and as the non-conceptual vehicle of a self-expressive absolute. To use Jean-Claude Dumoncel’s expression, ‘Peirce’s interpretant is [...] the physical fiction of metaphysical possibilities or impossibilities’ (personal communication, my translation, 7 July 2012).<sup>147</sup> One such impossibility, as we have shown, is to maintain a notion of representation as the *a priori* agreement between subject and object. Restructured as unconscious or primarily hypothetical mediation,

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<sup>147</sup> The original French reads: ‘L’interprétant de Peirce est donc la fiction physique de possibilités ou d’impossibilités *métaphysiques*’ (Dumoncel, personal communication, my translation, 7 July 2012.). The quote is taken from the unpublished and extended version of the published article L’expérience Peirce, which may be found in (Debaise 2007, 112-127).

representation becomes merely one of the components of a wider process of expression. This is precisely what Peirce means when in 1865 he writes that ‘*all is representative*’ (W1 MS113 1865, 324; original emphasis). That everything interprets means that the movement through which we imagine is nothing other than the movement by which nature produces things. After hypothesis, the natural sign becomes again possible. But the more extreme and interesting possibility opened up by such a wholesale naturalisation of representation as signification is its expansion to what has been commonly designated as ‘lifeless’ – for after all, it might still be objected that the example of the flower confines us to the realm of the organic where the translation of properties is meaningful for reproduction. For Peirce, there is no reason for one to be restrained by such distinctions. In an example of how interpretation works on such a level, he writes:

As a case as nearly brute and inorganic as any, I may mention the form of relationship involved in any screw-form which is definitely of the right-hand, or occidental, mode [...] or left-handed, mode. Such a relation exists in every carbon-atom whose four valencies are saturated by combination with four atoms of as many different kinds (CP 6.322).

As the pollen-grain represents to the ovule for what the ovule can become; or as the colour of the flower represents the flower to itself; or as the word ‘x’ stands for the word ‘y’ in another language for me – so the valency of a carbon-atom mediates that carbon-atom to a different atom with which it may compound to yield an organic hydrocarbon compound, an inorganic carbon-dioxide compound, or, in the case that the element remains the same, a diamond or a graphite. Valency literally mediates the activity through which the carbon-atom interprets itself into something else.<sup>148</sup> This last

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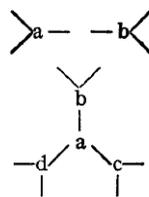
<sup>148</sup> Proof of Peirce’s conviction that interpretation suffuses all creation is the fact that he literally expounds upon the logic of chemical compounds to formally depict the relations between the three categories:

If [...]there be any formal division of elements of the phaneron, there must be a division

example gives us the opportunity to clarify our somewhat liberal usage of the philosophically loaded term ‘life’ and ‘vital interest’. For Peirce, interpretation as the transformational limit of becomings is indeed a ‘vital phenomenon’ (*CP* 6.322). And inasmuch as it is merely a more concrete way to refer to the workings of the category of the Third or the ‘Thou’ as a category *of* Nature, we are indeed dealing with a fundamentally vitalist philosophy.<sup>149</sup> As we have been arguing from the very beginning of this thesis, Nature is living and that furthermore Nature is purposive. However, this vitalism is not crude. For Peirce, ‘life in the physiological sense [is] due to life in the metaphysical sense’ (*ibid.*) and it is this metaphysical sense that the concept of interpretation as third tries to capture. That Nature is living therefore means that it involves the vital connection of interpretation as its component. In this sense a rock may be defined by its capacity for interpreting and being interpreted as much as a

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according to valency; and we may expect medads, monads, dyads, triads, tetrads, etc. Some of these, however, can be antecedently excluded, as impossible [...] In the present application, a medad must mean an indecomposable idea altogether severed logically from every other; a monad will mean an element which, except that it is thought as applying to some subject, has no other characters than those which are complete in it without any reference to anything else; a dyad will be an elementary idea of something that would possess such characters as it does possess relatively to something else but regardless of any third object of any category; a triad would be an elementary idea of something which should be such as it were relatively to two others in different ways, but regardless of any fourth; and so on (*CP* 1.292)



**Figure 6: The poly-valency Graph (*CP* 1.347)**

<sup>149</sup> As Peirce admits:

I have been constantly on the alert to find a genuine triadic relation – that is, one that does not consist in a mere collocation of dyadic relations, or the negative of such, etc. (I prefer not to attempt a perfectly definite definition) – which is not either an intellectual relation or a relation concerned with the less comprehensible phenomena of life. I have not met with one which could not reasonably be supposed to belong to one or other of these two classes (*CP* 6.322).

living organism or an intellectual a concept yet it cannot be said to live or interpret in the same way. We are still operating in a genetic framework where the metaphysical substratum of thirdness as interpretation, along quality and relation, may manifest in different organic and inorganic concretions.

Within such a context, the concept of the sign may finally be understood fully, without recourse to linguistic parameters. Much like colour, which is a junction of brightness, chroma, and nuance, the sign is a multiplicity of at least three coordinates: its own essence (quality), its object (relation), and its reference to an interpreter or its ‘purpose’:

[A] sign has, as such, three references: 1st, it is a sign *to* some thought which interprets it; 2nd, it is a sign *for* some object to which in that thought it is equivalent; 3rd, it is a sign, *in* some respect or quality, which brings it into connection with its object (*W2 P27* 1868, 223; original emphasis).

Accordingly, semeiosis is more than a binary relation between a representation and a thing. The type of relation that belongs to a pair, which is a dynamical action and which designates the members of the pair as agent and patient is not enough to capture the essence of semeiosis. The transformational limit which is embodied by the interpretant spirit and which must be crossed in order for something to acquire novel meaning or life for something else needs to be included in the definition:

By ‘semeiosis’ I mean [...] an action, or influence, which is, or involves, a cooperation of three subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs. *Σημείωσις* in Greek of the Roman period, as early as Cicero’s time, if I remember rightly, meant the action of almost any kind of sign; and my definition confers on anything that so acts the title of a ‘sign’ (*CP* 5.484).

The above definition gives us the chance to consolidate our core argument that semeiosis is a cosmologic of expression. Involving a practical impulse or will – which recalls the early characterisation of the ‘I, Thou, It’ categories as impulses – irreducible to a conscious transcendental subject, semeiosis founds a post-critical speculative

philosophy on the self-expressive activity of signs which find their sufficient reason in the generative contingency of their mutual relations. The necessity of sufficient reason, which if reinstated would imply a return to dogmatic metaphysics, is therefore replaced with the necessity of contingent reason which is first and foremost the experience of vital relations that enter in the composition of a purposive cosmos.

The primacy of this purposiveness is reflected as the third term in every trichotomy in Peircean philosophy. As the numerous taxonomies of the Peircean system have been extensively discussed in other works, we will not be dwelling on them in detail here. It suffices for our argument to mention that the classification of signs themselves into further species is structured around the adequate account of the purposive third, which allows us to reproduce the table of 1866 with a few additions.<sup>150</sup>

	<b>BEING - I</b>		
		Reference to a <b>Ground</b> Quality	Internal Quality Equiparant and Likeness
			External Quality Disquiparant and Index
			Imputed Quality Symbol
<b>CATEGORIES</b>	<b>ACCIDENTS - THOU (THREE UNIVERSAL CONCEPTIONS)</b>	(Double) Reference to a Correlate/ <b>Object</b> Relation	Real Relation Likeness and Index
			Ideal Relation Symbol
		(Triple) Reference to an Interpretant/ <b>Subject</b> Representation/Interpretation	Likeness /Imitation
			Indication
			Symbolisation
	<b>SUBSTANCE - IT</b>		

<sup>150</sup> We have included the classification of signs in the fourth column only for the sake of elucidating of their derivation from Peirce's early metaphysical framework and their position in his logic of relations. We do not consider a more elaborate discussion of the said classification essential for our argument and, given the fact that it is extensively dealt with in Peirce scholarship, we will not be embarking upon a more detailed account.

**Table 4:** The Revised Table of the Categories, 1866

Indeed, it is in terms of whether the self-purposive semeiotic character of expression is explicitly taken into account or not that the classes of signs as pure or degenerate instances of signification arise. The degenerate cases are those where an immediate dyadic relation is presupposed between the sign and the object. This immediate dyadic relation gives us the first two kinds of signs: the icon and the index. The icon is the product of a simple and immediate resemblance of the sign with the object but there is no dynamical connection between the two; the index, on the other hand, is defined as the dyadic case of contiguity or copresence of the sign in the object which together form a real connection or ‘organic pair’ (*CP* 2.274; 2.299).<sup>151</sup> Although this distribution of the icon and the index is articulated in 1902 it is not new. In fact, it is a direct descendant of Peirce’s metaphysical explorations that are already in place by 1861 with the [*Treatise on Metaphysics*], which bear directly on the issue of how each actualised phenomenon or concretion expresses the Absolute. As the icon so the index is a real and different manifestation or concrete sign of this Absolute. Their respective metaphysical truths is therefore to be found in them being functions of a cosmos that interprets itself through them. Still, on account of their dyadic structure iconic resemblance and indexical contiguity are not adequately illustrative of the triadic nature of cosmic interpretation and the irreducible novelty it introduces by translating

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<sup>151</sup> Peirce gives the following examples:

A sign is either an icon, an index, or a symbol. An icon is a sign which would possess the character which renders it significant, even though its object had no existence; such as a lead-pencil streak as representing a geometrical line. An index is a sign which would, at once, lose the character which makes it a sign if its object were removed, but would not lose that character if there were no interpretant. Such, for instance, is a piece of mould with a bullet-hole in it as sign of a shot; for without the shot there would have been no hole; but there is a hole there, whether anybody has the sense to attribute it to a shot or not. A symbol is a sign which would lose the character which renders it a sign if there were no interpretant. Such is any utterance of speech which signifies what it does only by virtue of its being understood to have that signification (*CP* 2.304).

itself into ever-renewed individuations. When carried to its highest point, the icon ‘[destroys] itself by becoming identity’; ‘[all] real resemblance, therefore has a limit [beyond which] verisimilitude ceases’ (*W1 MS70* 1861, 80). The index, on the other hand, depends on the constant connection between the sign and the thing for its existence – when the pointing finger ceases to point to a certain object, the connection stops. The problem with iconic verisimilitude then is that it is only partial truth; the problem with indexical veracity is that its truth needs to be established at some point after which it ceases. In other words, the icon is limited with regard to its ‘completeness’; the index is limited with regard to its ‘beginning’ (*ibid.*).

From this standpoint, we can see that the irreducibly vital and triadic character of semeiosis as a continuous process of self-differentiation is realised only when there is no simple immediate dyadic rapport between the sign and the object – only when the action (whether conscious or unconscious) of an interpretant spirit for which this connection reflects a vital interest is exposed through the third species of the sign, which is called a ‘symbol’. The particularity of the symbol lies in that it claims no particular similarity or affinity with its object; it is neither verisimilar nor veracious to its object but totally different from it. Yet it is this difference, this independence that constitutes the truth of the symbol as what Peirce calls ‘verity’ (*ibid.*). To be precise, all signs are different from their objects in that they include their objects and yet they are new with respect to the latter. In other words, it remains the case that the purpose of all signs, ‘which is the purpose of thought’ – and of thought as Nature, we may add – ‘is to bring truth to expression’ (*CP* 2.444 Fn P1 Para 1/2). Yet only symbols draw attention to the exquisite novelty of the topos through a connection that is hypothetical at its inception and then established by convention. The symbol, writes Peirce, ‘[claims] as much truth the first time [it is] *presented* as [it] ever [does]’ (*W1 MS70*

1861, 80; added emphasis). In other words, its truth will never depend on how much or how little it approximates its 'object'. Rather, the truth of the symbol returns us to the principle of pragmatism: bearing no obvious resemblance or affinity to the 'object' or the subject the symbol can only draw attention to the purity of the connection through which 'truth comes about' – through which nature expresses itself. Of course, to repeat the point we have been making so far, all species of sign presuppose the triadism of reference to quality, relation, and mediation. This is the metaphysical substrate that underlies signification in the first place. Yet only the symbol can lay bare the triadic multiplicity. Even if we consider it etymologically, the symbol, is precisely that yoke – of a form, a representation and a thing – that encapsulates properly the process of conjoining.<sup>152</sup> According to this process, insofar as the symbol refers to its object it can be said to stand for it; insofar as it refers to its own essence, it is a manifestation of the Absolute; insofar as it refers to a mind it is translatable into any language or system of symbols through which it can be potentiated for novel concretions (W1 MS105 1865, 258). Taken as an actualised whole, then, the symbol is the junction of an object *qua* informed and represented, a form *qua* represented and realisable and an equivalent representation *qua* represented and realised image. Or, as Peirce puts it, the truth of any

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<sup>152</sup> Peirce is perfectly aware of the etymological importance of the word. He writes:

The word Symbol has so many meanings that it would be an injury to the language to add a new one. I do not think that the signification I attach to it, that of a conventional sign, or one depending upon habit (acquired or inborn), is so much a new meaning as a return to the original meaning. Etymologically, it should mean a thing thrown together [...] the Greeks used "throw together" (*συμβάλλειν*) very frequently to signify the making of a contract or convention. Now, we do find symbol (*σύμβολον*) early and often used to mean a convention or contract. Aristotle calls a noun a "symbol," that is, a conventional sign. In Greek, watch-fire is a 'symbol', that is, a signal agreed upon; a standard or ensign is a 'symbol', a watchword is a 'symbol', a badge is a 'symbol'; a church creed is called a 'symbol', because it serves as a badge or shibboleth; a theatre ticket is called a 'symbol'; any ticket or check entitling one to receive anything is a 'symbol'. Moreover, any expression of sentiment was called a 'symbol'. Such were the principal meanings of the word in the original language. The reader will judge whether they suffice to establish my claim that I am not seriously wrenching the word in employing it as I propose to do (CP 2.297).

symbol is that the symbol ‘stands for its *object*, [...] translates its *equivalent representation*, and [...] realises its *logos*’ (W1 MS106 1865, 274; original emphasis).

The irreducible triadicity of the symbol need not be taken to entail supremacy over the other kinds of signs.<sup>153</sup> Its inclusion of icon and index nonetheless suggests the very dependency of the symbol on what we might call more ‘primitive’ signs. It is moreover a novelty that, by serving a practical interest, it is the crystallisation of a ‘territory’, to borrow a term by Deleuze and Guattari ([1980] 1987, 314), by means of a hypothesis from which further series of signs may be expected to arise as its con-sequences. It is this expectation, this extension of the symbol to the future that enables it not only to establish itself as such but also to grow. The symbol constantly draws attention to its becoming-sign by virtue of the fact that it embodies the law of habit through which its meaning insists and perishes to enter novel concretions (CP 2.295). The habitual nature of the symbol is of paramount importance. On the one hand, it is what distinguishes it from icons and indexes. The ‘significant value’ of a symbol consists in the regularity of an association and, in this sense, it depends precisely on the force of the regularity. By contrast, the significant force of an index rests in the very existential fact which connects it with its object, while that of an icon rests upon its participation in the character of an existential fact (CP 4.500; 4.531). Encompassing all three values before it, the symbol is therefore not only real and existing but it also consists in the fact that other existents (other icons, indexes or

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<sup>153</sup> Peirce’s example of this irreducible triadicity is the following: [A] constituent of a Symbol may be an Index, and a constituent may be an Icon. A man walking with a child points his arm up into the air and says, ‘There is a balloon.’ The pointing arm is an essential part of the symbol without which the latter would convey no information. But if the child asks, ‘What is a balloon,’ and the man replies, ‘It is something like a great big soap bubble,’ he makes the image a part of the symbol. Thus, while the complete object of a symbol, that is to say, its meaning, is of the nature of a law, it must denote an individual, and must signify a character (CP 2.293).

symbols) will conform to it or act back on it to transform it. On the other hand, the habitual character of the symbol also makes it easier for one to comprehend how Peirce can call 'symbolic' the interpretive activity of what is commonly defined as 'inorganic'; in effect, habit is the more general and primary term to the symbol, so that the latter is metaphysically redefined apart from linguistic restrictions and in terms of an insisting and perishing manifold of connections.

All these terminological clarifications, which we have been honing so far, are admittedly valuable in proving the symbol's manifest triadism, which is in sync with Peircean cosmology. Yet the complexity of the above remarks should not muddle the astounding simplicity of the symbolic function: in making manifest interpretation as a transformation of something into a sign for something or someone else, the symbol is the embodiment of novelty itself. And its truth, which is the expression of this novelty, returns us to the very principle of pragmatic semeiotics: bearing no obvious resemblance or affinity to the 'object' or the subject, the symbol can only draw attention to the question of how its truth is produced and what the effect of this truth is – namely, what beliefs, thoughts, or actions the symbol triggers and is embedded in. In this sense, a pragmatist can never simply dismiss a sign in terms of a truth it cannot reach; the symbol-habits of an alchemist or a desert are as good as the symbol-habits of a philosopher or a scientist or an artist. The symbolic function is a function that exposes more adequately than any other that signs have a life of their own. The *facultas signatrix* can only depend on what it requires.

#### 4. a. The Evolving Sign

The conventional or habitual character of the symbol – evidenced by its very difference from its object – allows us to resuscitate and close off the Platonic connection we opened up in the previous chapter with regard to the problematic of the *Cratylus*. As the reader will have understood by now, one of our guiding problems in reconstructing the genesis of Peircean semeiotic cosmology has been to discover where Peirce stands with regard to the question of the nature of naming exposed in the classical dialogue even though his concern is hardly confined to language.<sup>154</sup>

To shed light on how the concerns of the *Cratylus* trickles down to Peirce, we may briefly recall that for Plato the problem of naming is famously split into two perspectives: on the one hand, Cratylus argues that the correctness of a name is determined as belonging to the thing ‘by nature’ (*φύσει πεφυκνία*) (*Cra.* 383a); on the other hand, Hermogenes objects that names are contingent on the name-giver and are thus subject to convention the stability of which is guaranteed by communal agreement (*συνθήκη καὶ ὁμολογία*) (*Cra.* 384d). Equally famous is Socrates’ response: taken in isolation, both positions turn back upon one another. Even if one accepts that name-giving is the product of convention, the ‘name-givers’ (*ὀνοματουργός*) (*Cra.* 389a), whom Hermogenes invokes as the inventors of the words, would somehow need to have first-hand knowledge of the real nature of things. The problem of nature is thus reinserted in the theory of conventional creation. Yet Cratylus’ proposition is exposed as equally problematic since, in admitting the existence of correct and incorrect names for things, the latter presupposes that

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<sup>154</sup> It would be interesting, in this regard, to note that the *Cratylus* was one of the few Platonic dialogues that Peirce chose to translate for himself from the original Greek.

incorrectness can only be the product of erroneous ascription of a name to a thing by convention. Furthermore, as Socrates notes, had the history of any given language developed differently, there could be a different word for any given signified object. The middle way between the two extremes is arduously carved through a series of etymological excavations by recourse to Homer and Hesiod, which escalates in a minimally phrased doctrine of Ideas.<sup>155</sup> Through the voice of Socrates, who undertakes to reconcile the two views, Plato concludes that convention is better reserved for the capacity of names to *indicate* their object (*Cra* 435b). This conclusion, however, does not necessarily contradict the theory that letters, out of which names are synthesised, must and do share in the *nature* of things which they ‘show’ (*τὸ ὁμοιώματι δηλοῦν*) (*Cra*. 434a).<sup>156</sup> Indeed, their very correctness is determined by the extent to which the letters manifest or imitate the absoluteness of the Idea. The gap between nature and convention is therefore bridged through the supposition that the conventional word finds its criterion of truth in something outside the name-givers, which restrains them and thus establishes a continuity between the word and the thing. Letters, which are the ultimate unit of analysis in the Platonic etymological venture, must share in the nature of the thing. For unless this is so – that is, unless the elements of the words exist and exhibit some likeness to the things – a name cannot signify anything in particular (*Cra*. 434a-b).

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<sup>155</sup> In 397b, for example, Plato writes: ‘we are most likely to find correctly given names among those concerned with the things that by nature always are, since it is proper for their names to be given with the greatest care, and some may even be the work of a more than human power’. Or, again, in 439c-d, we find the question: ‘Consider, Cratylus, a question that I for my part often dream about: Are we or aren’t we to say that there is a beautiful itself, and a good itself, and the same for each one of the things that are?’ In what follows, Plato very briefly posits that namegiving has to rely upon the Ideas rather than the Heraclitean doctrine of flux. The dialogue breaks off with Cratylus’s assertion that he is going to consider this explanation.

<sup>156</sup> We consider the translation of the verb ‘*δηλοῦν*’ into ‘to represent’ to obscure the very clear meaning the verb has in the original Greek, which we have translated as ‘to show’ and which we have argued to dovetail with Peirce’s cosmology of expression as the self-manifestation of the Absolute.

A closer look at the co-dependence of the word on the name-giver and the nature of the thing will allow us to add further support to our argument that Peirce's semeiotic is a subtilisation and reinvention of the Platonic problematic. To a large extent, this dialogue condenses almost all the problems we have mentioned so far and which Kant, to a degree, inherits. We already find here the split between nature and convention (which in the Kantian context is expressed as the split between physiological and pragmatic anthropology), and the correlated problems of the beginning (of the first name), of continuity between the name and nature, of evolution evidenced in the changes names undergo through history. Furthermore, the instance around which all the above issues and Peirce's own metaphysical response to them converge is the very ambivalence Plato ascribes to the nature of the word: as granite constrains the quarrier who must cut it with a specific material, so the Idea constrains the name-giver who must find a word 'naturally fitted' to the thing (*Cra.* 389b). But this is nothing else than to say that the Idea is in turn relatively determined by the word. The Idea constrains the name, the name carves out the Idea. We do not therefore simply have a name that imitates the real or that determines the real. As Plato puts it, the word does not simply follow suit from reality (*ousia*) but is an 'organon' that is 'instructive and discriminative' of reality in same way that a shuttle separates and organises the fabric (*ὄνομα ἄρα διδασκαλικόν τί ἐστίν ὄργανον καὶ διακριτικὸν τῆς οὐσίας ὥσπερ κερκὶς ὑφάσματος*) (*Cra.* 388b-c). In other words, the name 'finds' or discovers an already existing *ousia* and invents it at the same time (*Cra.* 436a). This is why, in our view, the Platonic usage of the term 'to manifest' warrants the very turn to the poetic or mythological function. Before the crystallisation of the doctrine of Ideas by the time of the *Republic* and *Timaeus* (and its canonical reception followed by the rejection of the poetic creation thereafter), we have the invocation of

the poetic capacity of the name already indicating that the Idea is at least differentiable – that it involves and has the capacity to grow and evolve, as Peirce would put it.

It is also from the perspective, in our view, that Plato is able to make what we consider to be an extremely precocious remark, showcasing the topological immanence of the Idea in the thing: like the painting which imitates an object is not the object and yet shares in the nature of this object in that the pigments have an objective reality, the name may imitate the Idea but ultimately shares in the nature of the latter. What for the painted image is the pigment, for the name is the gesture and the sound that precede it in the order of genesis and which the name must involve if it is to manifest the thing truthfully or correctly (*Cra.* 422e). We therefore have here a hint of the composite nature of the name which, although different from the Idea, is somehow continuous with the latter as both are made of the same ‘stuff’ (*Cra.* 434b). This is the point where our argument about the connection between Platonic and Peircean thought comes to a head. What we encounter in the classical dialogue are the germs of what we have seen Peirce to call ‘metaphysical matter’, which we have argued to be the very premise of our philosopher’s characteristic utterance ‘the sign *is* a thing’ (*W1 MS94* 1865, 168-9). Indeed, in this phrase that we may see how Peirce is simultaneously influenced and how he stretches the Platonic formulation into its full consequences. As we argued in the previous chapter, by keeping the link between the early and late articulation of the doctrine of Idea (or Time) as the potential which is expressed topologically in actual concretions not only is Peirce able to intensify the implicit abstract materialism of the name into a restructuring of the Logos as Nature but also to lift the problematic of signification from naming and language altogether. The name becomes a *sign* that in its triadic experiential nature is the clear metaphysical expression of the latent phenomenism inherent in Plato. It does not represent

anything realer but is a phenomenal ‘concretion’, as we have seen Peirce to call all actual entities (W1 MS78 1864, 145), or as an insistent or enduring entity that expresses an ever-evolving Logos.

Within such a framework, it is easy to see that as the discriminative or constructive character of the symbol, convention may include conscious agreement but it is not and cannot be overdetermined by consciousness. In line with the cosmology we have outlined so far, conscious agreement itself is a species of convention reclaimed as the pure creativity of unreason. Consciousness is no doubt involved in the production of signs yet it is restrained by the un-consciousness in which it is immersed and to which it owes its genesis. In the symbol, which by involving the icon and the index reflects the inclusion of sound and gesture in the name outlined by Plato, Peirce is able to showcase this un-conscious generation of phenomena that are contingent on the subject and the object yet bear their own significance. The symbol, as he puts it, is indeed a ‘sign [...] which is constituted a sign merely or mainly by the fact that it is used and understood as such’. However, it is indifferent to ‘*whether the habit is natural or conventional*’ or the ‘motives which originally governed its selection’ (CP 2.307; added emphasis). With this statement we have further proof of the irrelevance of the split for Peirce and a definitive answer to the question of the *Cratylus*. Habit, which is the force of Nature the symbol so adequately embodies, is nothing but the metaphysical category under which convention is subsumed. But it is also the intensive principle of growth binding the potentiality of the first and the actuality of the second that expresses the insistence and perishing of concrete manifolds at the limit. From this perspective, Peirce will be able to maintain his evolutionary viewpoint: inasmuch as it enfolds quality, relation and interpretation or habit, the symbol – or more generally, the sign – is susceptible to change and history but its changeability is its very truth and

nature and its necessity is literally cosmic – the constraint of contingency that requires that a particular tone expresses its self-determination. Things have as much a ‘say’ in how they shall be interpreted as the one who does the interpretation.

There is, however, one last aspect of the *Cratylus* that is of interest for our discussion and, in particular, for the type of intellect Peircean hypothesis mobilises which in the previous chapter we have considered to be a twist of the Kantian intellectual intuition. By completely reconceptualising the symbol according to the genesis of reason, not only is Peirce reinventing the teleological consequences of the third *Critique* but he is also very close to Socratic oracular inspiration already manifest in the *Cratylus*. We find here another major influence that assists Peirce to re-express archetypal intellect as the abductive operation of intuition or feeling. Feeling, which as we have seen that is simultaneously at the heart and the limit of signification finds its parallel in the Platonic invocation of something ‘other than human’ operative *in* the name-maker that ground the correctness of names (*Cra.* 438c). As it is known, when asked how he knows that his etymologies are correct, Socrates replies that he does not know, resorting to divine inspiration. With Peirce, we may say that this mythological and theo-gonic expression finds an exoteric restatement: the semeiotic impulse is the impulse of natural power which precedes and grounds reason and is infinitely more developed and complicated than reason. It is here that Peirce is the farthest from Kant when the latter says that the symbol is merely a ‘shell’ of the thing in itself and hence denotes ‘a poverty in concepts’ (*APV* 7:191), as we saw in the first chapter. The enlightened state that Kant had reserved by separating the symbol from the thing is now achieved in the exact opposite way: by intuiting the symbol as a manifestation of the absolute, the name-maker allows herself to experience how she creates and is created by symbols.

The oracle at the heart of the experimenter allows us to end this chapter by taking up again the nature of pragmatism and its cryptic maxim – namely, that pragmatism is the identification of the concept (which is a species of the symbol) with the whole of its effects (*CP* 5.402). With the clear nod to the metaphysical primacy of the sign over the signifying agent, it becomes obvious that this identification has nothing to do with the notion that the ultimate purpose of thought or the symbol is to correspond to or represent some sort of action or effect or thing in itself outside it. This would entail the sort of ‘practicalism’ that Peirce opposed vehemently throughout his career (*CP* 5.412). Rather, signification conceived in these terms exposes the nature of thought as processual activity, the ultimate purpose of which is its own self-growth. Thought *is* its effects; it is the creation of a world as the manifestation of an intellectual intuition in action in us and in spite of us and this is precisely where its ethical and aesthetic value lies. We will see in greater detail in the final chapter that it is in the cultivation of this realisation that true enlightenment lies. To use Peirce’s words, finally ushering us into the problem of God which we have reserved for the last chapter, the evolution of the human lies in the growth of an ‘aesthetic ideal [...] as the share which God permits [us] to have in the work of creation’ (*ibid.*) The sign, recovered pragmatically in terms of its living consequences, is meant precisely to recover and revitalise this realisation that critical philosophy had suppressed in order to be able to counteract ‘mysticism’ and dogmatism.

## Chapter 5: Creative Semeiosis

### 1. An, Other, Medium; Chance, Necessity, Love

[The] whole organism of logic may be mentally evolved from the three conceptions of first, second, and third, or more precisely, An, Other, Medium.  
(W5 MS546 1885, 245)

Although a cell appears to be a very particular sort of arrangement; I cannot help guessing that it may contain all the fundamental elements of the uni[verse].

(W5 MS546 1885, 247)

The primal matter must itself be living  
(W5 MS573 1886, 247)

As far as we can compare Nature's ways with ours, she seems to be even more given to variety than we.

C. S. Peirce (CP 1.206)

Having reached the final chapter of this thesis, we need, once again, to bring the threads of our argument together by incorporating into our original question of the ends of reason what we have demonstrated to be the central axis of Peircean philosophy – namely, the contemporaneity of pragmatic thinking with a distinctly cosmological reflection. In tracing the evolution of the logical method of 1861 into the pragmatic method of 1903, the previous chapters have served precisely the purpose of exposing the legitimacy of this connection. In effect, we have argued that Peirce's passage toward a vision of semeiosis as a natural and cosmic activity is simultaneously the product and the prerequisite of a pragmatic mode of thought that overcomes the limitations of the Kantian framework by stretching the openings the latter affords to

their utmost consequences. We saw that the apex of Peirce's experimentation with the anthropological adventure of rationalism is condensed in the supremely abductive moment whereby the infinite is hypothesised to make itself manifest in the finite. From that moment onward, we have been trying to map the novel parameters that this hypothesis brings into the problem of signification. Reaching the first critical point of our inquiry in the problematisation of the thing in itself – as the concept that perpetuates the bifurcation between reason and Nature – we discovered that Peirce's proposed way out of a double-world hypothesis hinges on a refined concept of continuity that enables him to question the clear-cut boundaries Kant sets for philosophy. We found that according to this novel concept, the noumenon gives way to feeling or impression as the thing at the limit, becoming immanent to a pre-reflexive experience which no longer proceeds from the parts but feels the whole at the same time that it brings this whole into expression. Experience therefore becomes the proper limit of crisis now reconfigured as the originary creation or construction of what is significant; put differently, it becomes the site of contingent necessity where the unconditioned un-conscious strives to bring itself to actuality. We are therefore no longer dealing with a *facultas signatrix* that represents deductively but with a universal semeiotic and a vital impulse that abductively or hypothetically – and hence, immanently – grounds reason in a nature that is free to express itself in its own signs. From this cosmological perspective, reason is first and foremost the experience of the infinite within, of those vital relations that express the unconscious process of creative semeiosis and can enter in the hypothetical composition of the concept because they agree with the power or impulse of cosmic self-determination that has a pragmatic interest in inventing itself.

To return to the post-critical climate that forms the context of this thesis,

we may now take note of the Schellingian stripe Peirce acknowledges in himself. As for Schelling, for Peirce, too, knowledge can never be a ‘dead possession’ but the ‘internal repeating and emulating of that great monstrous process of all life’ (Schelling, [1811-1813] 2000), *xxvi*). Knowledge is not pure but interested. Moreover it is the product of experimentation or adaptation of the real. In other words, transcendental categories are genetically derived, meaning that the schema evolves with its various concrete manifestations for the benefit of adaptation. But in the pragmatic interest of this process to keep on signifying itself we may also find traces of the Fichteian proposal of the primacy of the practical, which although implicit is evident in the definition of pragmatism where the practical or vital is articulated within and, indeed, grounds the speculative. At this point, we may also clarify what Fichte’s mistake, which we have seen Peirce to see as a misunderstanding of Kant (*CP* 6.95), consists in: the practical cannot be confined within intra-reflexive logical circularity; as the soul of semeiosis, the practical primarily refers to the primacy of the unconscious over consciousness. Let us make one more time clear that the unconscious character of this process should not be understood as a negative predicate, excluding consciousness. As we have mentioned before, in Peircean philosophy Nature includes both. Expressing a different mode of intelligence, which can only be felt, Unconsciousness is rather meant to embody the extra-logical (or semeiotically logical) unthought ground that is the true *a priori* and makes the genesis of reason possible in the first place. To borrow von Harmann’s beautiful expression, the unconscious is a force of life ‘anything but blind, rather far-seeing, [...] even clairvoyant, although this seeing can never be aware of its own vision, but only of the world’ ([1868] 2000 *Vol. II*, 246) – of a world that, as we might add along Peirce, it creates through the constant invention and interpretation of signs. The semeiotising Unconscious in this sense is absolute freedom as it manifests

the freedom of contingency that is no historical or moral necessity but the freedom to be or not to be in its signs. This is the same thing as to say that the Unconscious or Nature is pure purpose, a will or impulse that is its own end.

At this point, we need to attend to a potential difficulty in our exposition. If the evolution of unreason is its own end, and hence indifferent to particular manifestations of this end, how can one reconcile disinterestedness and interest? How can it be that the process of signification – indifferent to what signs are produced and by whom – is simultaneously called practical or vital? At first glance, the connection might seem to burst at the seams as the affirmation of the freedom of the sign certainly does not do much to alleviate the problem of the passage from the indifferent ‘function’ of nature to the interested biological flavour of hypothesis. On the contrary, it seems to create more problems: for even if we affirm that the sign is free as the product of a paradoxically purposive but indifferent Nature, what solace and what value is there in this utterance, particularly for the human interpretant or subject? If the subject does not determine its own concretion, but is hypothetically or unconsciously carried to concretion through signs, how can it affect its own evolution? And if we are dealing with the indifferent production of signs, would not the intervention of reason be more than ever necessary to avert a relapse to a chaotic and unpredictable nature? This latter question, obviously driven by the imminent threat of relativism, blackmails a rather familiar yet desperate response: if the faculty of reason does not intervene, then any sign goes; if reason does not order the natural sign, culture cannot stand. The Kantian insistence on anthropological pragmatism would seem to creep back into our discussion from the back door. Yet, as we have been arguing so far, Peirce sets out to debunk precisely what this despair presupposes which is the very egotistical attachment of reason to itself which is expressed in the very dilemmatic premise that unless

anthropological reason prevails chaos shall reign. Let us make it clear, then, that from the perspective of unconscious semeiosis, such a dilemma merely misunderstands the indifferent freedom of natural signification – this is the final premise that our thesis will need to explore before we reach our conclusion. To do so a closer and more comprehensive look at the categories is necessary.

In the previous chapters we saw that the Categories are first expressed as the three impulses or persons ‘I, Thou, It’, which we have examined through a Platonic lens. With the particulars of the sign in place, we now have the opportunity to re-approach and refine them into a more coherent framework in terms of the already discussed concepts of interpretation, expression, insistency. Had we pursued an exposition of the categories from the beginning, we might have made clear Peirce’s break with critical philosophy but only at the cost of reducing the pragmatist adventure to an exercise in dogmatism. Having reconstructed, however, Peirce’s demand for an immanent articulation of reason in an extra-logical or pre-reflective being, we are able to pursue the question of the ideal of reason by connecting it with the problem we have outlined above – namely, the contingency of freedom and the coupling of interest and disinterestedness in the cosmic process of self-signification. It should be evident by now that the classification of signs gives way to the metaphysical framework it has been translating all along. The three kinds of relations that the icon, the index, and the symbol embody correspond to and exemplify the three universal elements, characters or Ideas, which Peirce famously terms First, Second and Third and which suffuse every single triad the Peircean architectonic has to offer.<sup>157</sup> In one of his most characteristic

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<sup>157</sup> As it is well known, the Categories are differently realised across physics, biology, mathematics, metaphysics and psychology. The most adequate classification is to be found in the series of short essays forming ‘A Guess at the Riddle’ in the *Collected Papers* (*CP* 1.354-

descriptions, which contains all the topological elements we have examined so far,

Peirce writes:

The Third is the medium, or that which mediates between the absolute first and the absolute last. Continuity, process, flow of time. Sympathy. Comparison, Exchange. Modification, compromise (an outward shallow sort of third). Sign, representative. Combination, mixture. Half-breed. Pin. Coherence. Whole. Ordering & legislation but Law established & active force = 2<sup>nd</sup>.

Means = 3<sup>rd</sup> but End = 2<sup>nd</sup>

Class. Generality. But conformity = 2<sup>nd</sup>

Rule

Fork in the road (Road = 2<sup>nd</sup> Place = 1<sup>st</sup>)

Triple for very. Plurality (but mere manifold = 1<sup>st</sup>)

Growth, change. Generation Plasticity

Curve = 3<sup>rd</sup> Broken line = 2<sup>nd</sup> Straight line = 1<sup>st</sup>

Accelerative force = 3<sup>rd</sup> Impulsive force = 2<sup>nd</sup> (W5 MS573 1886, 295)

The above passage confirms rather eloquently the topological exposition of the categories we have attempted so far. In tandem with the metaphysics of the topos, the First is not the One of Parmenidianism. Peirce does concede that this first is the *arche* or beginning of early Ionians. It is indeed the ‘indeterminate material’ out of which the world emerges (CP 1.373). Contrary to early philosophers, however, this

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1.416). Besides this instance, a beautiful exposition of their reach is to be found in the following extract on protoplasmic activity:

As to protoplasm, what the three *cenopythagorean categories*, as I call them, do, and what they are limited to doing, is to call attention to three very different characters of this chemical body. The first is a *posse* which it has in itself; for the priman stops at *can-bes* and never reaches to existence, which depends on interaction, or secundarity. This internal power which the category merely suggests, we recognize as that of feeling. Though it is priman, it is without any doubt dependent upon the extreme complexity of the protoplasmic molecule, if the word molecule can be applied to so intricate, unstable, and ununified a system. But it is the law of high numbers that extreme complication with a great multitude of independent similar results in a new simplicity. Next there is reactive force, a twoness, which is emphasized in the nerve cells together. It is the property by which any state of high cohesiveness tends to spread through the albuminoid matter. We usually call the property contractility. Thirdly, the categories suggest our looking for a synthetizing law; and this we find in the power of assimilation, incident to which is the habit-taking faculty. This is all the categories pretend to do. They suggest a way of thinking; and the possibility of science depends upon the fact that human thought necessarily partakes of whatever character is diffused through the whole universe, and that its natural modes have some tendency to be the modes of action of the universe (CP 1.351; original emphasis)

indeterminacy is not posited as homogeneity. The first is not a synthesising unity of the Whole (*W5 MS573* 1886, 294). It is rather full of ‘variety and life’ albeit of a not-yet-determinate nature. The first is not yet ‘definitely’ but only virtually or potentially there and it is here that we may recognise the meontic positivity of the Platonic idea. It is the ‘may be’ as pure power and can therefore *really* be said of every appearing thing generally or universally. Yet precisely because of its pure potentiality, it is not to be mistaken with a transcendent universality or a logical possibility. As Peirce affirms, ‘possibility implies a relation to what exists, while universal Firstness is the mode of being of itself’, writes Peirce (*CP* 1.531). In itself, the being of quality-as-Firstness is *sui generis*; it only appears as ‘possibility’ when it is involved in a relationship with a ‘second’, an existent being that is individual and actual in the literal sense, which belongs to the province of Secondness (*CP* 1.532). Contrary to the First, the second or non-numerical Other, exists and it exists precisely because it is second or in relation to an other. It is the definite coming to being of the ‘May-Be’ that is the First as a brute fact, a ‘Must-Be’ or an ‘Is’ that is unquestionable and unavoidable. As Firstness is potentiality, so Secondness is actuality or ‘experience’.<sup>158</sup> Its realm is clash or active force established. The second is an actualised quality mutually determined by what is it not or inclusive of what it is not. Showcasing the logic of continuous manifolds, no actual phenomenon or sign exists in isolation – ‘the actuality of an event seems to be in its relation to the universe of existents’ (*CP* 1.24). Each quality actualises Firstness differently and it is this difference in variation across a relational multiplicity given in ‘Seconds’ which is captured by relation. The signs are symptoms embodying states of active, acted upon, and reactive force. Secondness is the compulsion or shock to

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<sup>158</sup> Let us remind the reader of a comment we have made previously, namely that the experience of Secondness is more adequately characterized as recognised perception rather than what we have termed ‘feeling’ which is the experience of metaphysical empiricism.

thought, the differentiated and differentiating relationship of forces directly confronting one another. In agreement with Peirce's argument about the geometrical misconception of actualities as points on a line, the question of the Second is not the question of the sign as separate from others – although as a habitually established territory the sign is and may be considered as an individual – but of the sign as the embodiment of the forces in their various manifold relationships. As Peirce explains:

In general [...] we may say that for an event there is requisite: first, a contradiction; second, existential embodiments of these contradictory states; [third,] an immediate existential junction of these two contradictory existential embodiments or facts, so that the subjects are existentially identical; and fourth, in this existential junction a definite one of the two facts must be *existentially first in the order of evolution and existentially second in the order of involution*. We say the former is earlier, the latter later in time. That is, the past can in some measure work upon and influence (or flow into) the future, but the future cannot in the least work upon the past. On the other hand, the future can remember and know the past, but the past can only know the future so far as it can imagine the process by which the future is to be influenced (*CP* 1.493; added emphasis).

In this most interesting explanation of actuality, we find one more time the indirect manifestation of the primacy of the junction as the limit. One must start from finite and bounded or mutually limited entities yet the dynamics of schematisation as affectibility – here expressed as the interimplication of evolution and involution – necessarily involves unlimited Firstness expressing itself as the capacity of the actual to cross its restricting neighbourhood and intensive Thirdness as the 'Would-Be' that which synthesises or interprets the passage (*CP* 6.220). Again, the category of actuality is not numerically second in the order of introduction. As the first is the absolute First of pure potentiality, so the Second is the absolute last as pure relation or actuality. The middle, which is the very junction of memory-imagination is the province of the Third. For Firstness to become Firstness *to* Secondness, the Third as intensity is required. Before contradiction, there is sympathy; there is the fork in the road that translates the pure

freedom or contingency of the First which is always at variance with itself into the haecceity of the second which nevertheless does not and cannot exhaust the First's pure potential. Thirdness is the category connecting qualitative Firsts and provisionally enduring Seconds through rules into a continuum of habitual patterns or 'Thirds'. It is the connective tissue of signification as a mutant structure of insistency. The First may be, the Second exists, the Third *consists* with the patterns it helps establish: it is the one in the three expressions of the limit that consists in the fact that the future facts of Secondness will take on a determinate character (*CP* 1.26). In this sense, Thirdness it is as real as Firstness and Secondness, its reality being precisely that it is a rule to which future events have a tendency to conform.

We should make it clear that, for Peirce, the elements of the universe can only be talked about from the point of view of Secondness, or relatively to each other, and Thirdness, or in terms of their established habits. The First is so delicate a notion that it vanishes the very moment we are trying to think of it; the very term or concept of the 'First' is always already thought in relation to an actual Second mediated by a Third – to revert to the language we have been using, the actual or phenomenal concept of the First stands to us for a metaphysical prerequisite of that very concept.<sup>159</sup> In its existential expression, which is the 'Must-Be', the freedom of the First is momentarily compromised, as the Second is limited and rigid. Nonetheless, we must recall that in the Peircean architectonic the First is never exhausted. The Categories never form a simple classification of 1-2-3. As we argued in the previous chapters with regard to the circularity of the diagram of the 'It' or the taxonomy of quality, relation, and

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<sup>159</sup> Once again signalling a ground that is not *a priori* rational but immanently articulated or hypothesised in the given, Peirce writes: 'A medad would be a flash of mental 'heat-lightning' absolutely instantaneous, thunderless, unremembered, and altogether without effect. It can further be said in advance, not, indeed, purely *a priori* but with the degree of apriority that is proper to [semeiotic] logic' (*CP* 1. 292).

representation/interpretation, the Categories are relatively determined and this is what subtends the entirety of the logic of relations. There is Firstness – this metaphysical Firstness of Firstness, of Secondness, and of Thirdness; there is Secondness – the Secondness of Secondness and Thirdness; and there is Thirdness.<sup>160</sup> In themselves, all these Firstnesses, irreducible and of which every term must fall short, are better termed as ‘pure Zero’, around which all our previous discussion of the problem of germinal or differential continuity converges:

We start, then, with nothing, pure zero. But this is not the nothing of negation. For *not* means *other than*, and *other* is merely a synonym of the ordinal numeral *second*. As such it implies a first; while the present pure zero is prior to every first. The nothing of negation is the nothing of death, which comes *second* to, or after, everything. But this pure zero is the nothing of not having been born. There is no individual thing, no compulsion, outward nor inward, no law. It is the germinal nothing, in which the whole universe is involved or foreshadowed. As such, it is absolutely undefined and unlimited possibility – boundless possibility. There is no compulsion and no law. It is boundless freedom (*CP* 7.567; original emphasis).

As the above passage makes obvious, freedom in this case is not something had and lost. In letting go and surrendering itself to Secondness, the First accepts the fact that it

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<sup>160</sup> Peirce’s explication of the categorisation is evident in the following:

I wish to call your attention to a kind of distinction, which affects Firstness more than it does Secondness, and Secondness more than it does Thirdness. This distinction arises from the circumstance that where you have a triplet you have three pairs; and where you have a pair, you have two units. Thus, Secondness is an essential part of Thirdness though not of Firstness, and Firstness is an essential element of both Secondness and Thirdness. Hence there is such a thing as the Firstness of Secondness and such a thing as the Firstness of Thirdness; and there is such a thing as the Secondness of Thirdness. But there is no Secondness of pure Firstness and no Thirdness of pure Firstness or Secondness. When you strive to get the purest conceptions you can of Firstness, Secondness, and Thirdness, thinking of quality, reaction, and mediation -- what you are striving to apprehend is pure Firstness, the Firstness of Secondness -- that is what Secondness is, of itself -- and the Firstness of Thirdness. When you contrast the blind compulsion in an event of reaction considered as something which happens and which of its nature can never happen again, since you cannot cross the same river twice, when, I say, you contrast this compulsion with the logical necessitation of a meaning considered as something that has no being at all except so far as it actually gets embodied in an event of thought, and you regard this logical necessitation as a sort of actual compulsion, since the meaning must actually be embodied, what you are thinking of is a Secondness involved in Thirdness (*CP* 1.530).

is now limited. Yet in itself it remains *sui generis* and it loses nothing of its positivity. If the Second signals actual evolution, the First is germinal involution and it is free precisely insofar as it decides to transform into finitude with every 'Is'. As Peirce, perhaps remarkably close to Schelling, maintains, '[the] logic of freedom, or potentiality, is that it shall annul itself. For if it does not annul itself, it remains a completely idle and do-nothing potentiality' (*CP* 6.219).<sup>161</sup> With every actual sign, cosmic freedom is therefore strengthened by deciding to become manifest and the Third, simultaneously inclusive of the original zero and participative of it, is the very means through which this decision is carried out and which keeps the First alive in the Second. In this sense, the Third is simultaneously the habit, establishing territorial seconds and the force that destabilises the habit into the formation of new Seconds via new Thirds; but beyond that function, as a qualitative First, this law has to evolve as well – as we put it in the previous chapter, the laws determines but it is not necessary deterministic. In a gesture strongly reminiscent of the Lucretian *clinamen* or *swerve* (*Nature of Things*, 2.216-2.220),<sup>162</sup> Peirce argues that Thirdness mediates the cosmic operation of actualisation and re-potentialisation yet it does not determine that the outcome will be such and such.<sup>163</sup> The passage from germinal chaos to ordered cosmos

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<sup>161</sup> A full comparison between Peirce's Categories and Schelling's three potencies, their relations and the process of actualization is beyond the scope of this thesis. For an excellent discussion of Schelling's system see Tyler Tritten's *Beyond Presence: The Late F.W.J. Schelling's Criticism of Metaphysics* (2012).

<sup>162</sup> As is customary in the quotation of this classic text, we are referring to it in terms of Book and verse rather page number.

<sup>163</sup> Again, protoplasmic activity serves as Peirce's favoured example of the principle of digression or 'relaxation' of the law from its original route:

But after some atoms of the protoplasm have thus become partially emancipated from law, what happens next to them? To understand this we have to remember that no mental tendency is so easily strengthened by the action of habit as is the tendency to take habits. Now, in the higher kinds of protoplasm, especially, the atoms in question have not only long belonged to one molecule or another of the particular mass of slime of which they are parts; but before that, they were constituents of food of a protoplasmic constitution. During all this time they have been liable to lose habits and to recover

and the re-chaotisation of the actual that Thirdness facilitates is necessary but only contingently so. '[Where] freedom is boundless nothing *in particular necessarily* [results]' and this is precisely the freedom of what we have termed un-reason or the unconscious or Nature (*CP* 6.218; added emphasis).

It is with the freedom of the process of cosmic expression that we may bring together two related strands we explored in previous chapters, namely Peirce's stance toward Hegelian logic and the probabilistic response to indeterminism. It is our argument that from a Peircean viewpoint, both Hegelian rationalism and probabilistic necessitarianism would seem to converge, however obliquely, precisely on the problem of the freedom of the First triad. The dialectical sublation of all opposition in the concept and the premise that possibility can be calculated can be said to share the same misunderstanding of the movement of unreason or Nature. Indeed, the probabilistic assumption that this movement is *a priori* determined or calculated could be interpreted as a lesser version of the Hegelian hyper-rationalistic universe (*CP* 6.218). In a way, the reduction of novelty to possibility in conceivable only by presupposing the sublation of all difference into equiprobable outcomes in the same way that the Hegelian sublation of all difference in the rational Idea makes of becoming a risk-free sterilised process. As we have argued so far, the cosmic logic of semeiosis takes neither path – not that reason or regularity are denied; this is not the point Peirce makes. The point is rather that reason and regularity are insufficient to account for the question of ground, which we have traced to the operation of genesis *qua* unconscious. For as Peirce puts it, rendering the rational Idea, as Hegel does, eternal and disengaged from

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them again; so that now, when the stimulus is removed, and the foregone habits tend to reassert themselves, they do so in the case of such atoms with great promptness. Indeed, the return is so prompt that there is nothing but the feeling to show conclusively that the bonds of law have ever been relaxed (*CP* 6.266).

actual becoming commits the logical slip of subduing to deductive consecution the very abductive facticity of the unconscious; in other words, it is supposed that the idea will somehow pass from abstract purity into actual fact but denies the very passage by denying actuality itself. But here, again, we might remember here the Schellingian objection to Hegel, we have mentioned in the first part: why would the Idea ever want to pass into actuality if it is already complete in itself? As Peirce, echoing the same question, would answer, the lesson of the actuality of the unconscious is that the Idea does not have to attain the 'logical' resolution of contrarities in itself in order to achieve expression in what would be perfectly calculable or determined alternates. Of course, once it has served its purpose in the construction of philosophical concepts, the idea of actuality itself may indeed be prescindend or considered separately from potentiality but such precision does not warrant its exclusion from a system of metaphysics (*CP* 1.491). As we have seen, the metaphysical categories are irreducibly three and this is what we have to understand by the 'pure Zero'. The necessary expression of the Idea is the very existence of a germinally differential il-logical ground that wants to signify itself and that opens up philosophical thought not only to the danger but also to the delights of a pragmatic superior mode of experimentation inseparable from the intuitive feeling that is simultaneously its locus and principle of evolution:

Hegel's dilemmatic method is only a special character, which the evolution is sometimes found to assume. The great danger of the evolutionary procedure lies in forcing steps that are not inevitable, in consequence of not having a sufficiently distinct apprehension of the features of the conception in hand to see what it is that must immediately succeed it (*CP* 1.491).

The 'danger' that the evolutionary logic of semeiosis poses for necessitarian ultra-rationalism is precisely the logic of abduction, which never constrains a conclusion absolutely. It is through hypothetical experimentation with the Seconds through the

Third that the First continues to evolve in signs and this experimentation necessitates that actual existence (time), potentiality (Time) and law be co-expressed in the unconscious cosmogenetic limit that is the site or creative junction where thought and being co-emerge (*CP* 6.220). As we may recall, the route of hypothesis is the route of the hyperbola. Expressing the openness of the Zero *qua* potential, the hyperbola enables the different manifestations of a continuously determinable self-same function resulting in the construction of divergences, which are nonetheless expressions of *one* manifold.

At this point, we need to be clear about the construction of what we have called ‘one manifold’ for, above all, this manifold is neither an abstraction existing beyond and before actual signs nor a rational explanation of their relative determination. On the contrary, the manifold acquires significance once this relative determination is affirmed and once it has constrained the formation of concepts to describe it. It is merely the most ‘prescinded’ description of felt signs and the way they stand *to* one another *for* one in a complex fabric that is simultaneously the result of and the ground for concrete interpretative gestures of signification. The one world is independent of the way each sign produces meaning and yet inseparable from such production; it is a world defined as much by convergences as by divergences. It is this latter premise that allows us to comprehend the three models of evolution Peirce pits against one another, which are named after the categories of the First, the Second, and the Third, as ‘tychasm’, ‘anachasm’, and ‘agapasm’, according to which evolution is entrusted to ‘fortuitous variation’ (tyche), to ‘mechanical necessity’ (ananke) or to ‘creative love’ (agape) (*CP* 6.302).<sup>164</sup> It is not necessary to dwell extensively on these

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<sup>164</sup> Peirce clarifies the three doctrines in the following way:

three models since we have anticipated their foundations with the exposition of Peirce's semeiotic cosmology in the previous chapters. As is characteristic of this triadic cosmology, all three modes of evolution involve the same elements of Firstness, Secondness, and Thirdness. The problem with 'anancasm', of which the Hegelian system offers the best illustration according to Peirce, and 'tychasm', which has a distinctly Darwinian taste, is that they are both degenerate cases of 'agapasm'; in short they misapprehend the relation between 1-2-3 and especially the third element which is the element of 'sympathy'.<sup>165</sup> On the one hand, the tychastic doctrine that the concretions which manage to preserve themselves do so by haphazardly and opportunistically is caught in the dualistic dialectic of natural selection that only knows Secondness – that presupposes, in other words, the selection and distribution of traits along the lines of a reactive and hence exclusive determination ignoring purposive growth. Such a view could not be further from the interpretative logic of inclusion by semeiosis. As we have been arguing all along, this latter logic is the liminal logic of germinal paradox where the law of contradiction collapses since a sign includes what it is not. This is the 'positive sympathy' that tychasm does not know how to manage (*CP* 6.304). As Peirce puts it, in the same way that this logic demands that a sign include all that it is not, 'love cannot have a contrary, but must embrace what is most opposed to it, as a degenerate case of it, so tychasm is a kind of agapasm' (*ibid.*). The same is true

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Three modes of evolution have thus been brought before us: evolution by fortuitous variation, evolution by mechanical necessity, and evolution by creative love. We may term them *tychastic* evolution, or *tychasm*, *anancastic* evolution, or *anancasm*, and *agapastic* evolution, or *agapasm*. The doctrines which represent these as severally of principal importance we may term *tychasticism*, *anancasticism*, and *agapasticism*. On the other hand the mere propositions that absolute chance, mechanical necessity, and the law of love are severally operative in the cosmos may receive the names of *tychism*, *anancism*, and *agapism* (*CP* 6.302; original emphasis)

<sup>165</sup> We will not dwell on the relation between Peirce and the theories of Darwin and Lamarck as we have specified our focus to be primarily post-critical metaphysics. For commentary on Peirce's exchange with the scientific theories of evolution see Deledalle (2001), Parker (1998), Hausman (1993).

for anancasm that does not how to manage the idea of sympathy, either; this latter doctrine may accept that ‘development go through certain phases, having its inevitable ebbs and flows’ and the purposefulness in this flow (*ibid*). However, as we have argued above, this movement is already cancelled out. The vital freedom which is the spirit of love and expressed in the extra-logical facticity of existence and which genuine agapasm upholds is ultimately stifled. As Peirce says,

with its ‘reflection’, the whole idea of the theory [of anancism] is superb, almost sublime. Yet, after all, living freedom is practically omitted from its method. The whole movement is that of a vast engine, impelled by a *vis a tergo*, with a blind and mysterious fate of arriving at a lofty goal (*CP* 6.305).

Beyond the dread of chance and necessity, the contingently free evolutionary love of agapasm, which is ultimately termed ‘synechism’ on account of its adequate conception of continuity of creation, presents itself as the only alternative – as the junction of all three which applies to all concretions from matter to biological organisms to law itself. The ordinary diversification of chance is free to become established uniformity through the force or law of habit that nonetheless leaves room for divergence. This is the formula behind a semeiotic metaphysics which we may now also characterise, after a Whiteheadian fashion, as properly panexperientialist.<sup>166</sup> In principle, an atom and a human share the same *faculties*, now liberated from consciousness to span across the spectrum of existence. Everything – or rather every existing sign – is a manifestation of Experience or Feeling, Effort, and Habit, in which case, inorganic matter is not dead but merely the ‘complete induration of habit

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<sup>166</sup> To our knowledge, although Whitehead expressed his admiration for Peirce’s genius, the two philosophers have not been thought in conjunction so far. But from such a panexperientialist perspective, the affinity between Peirce and Whitehead’s work would definitely be found in their clear orientation toward articulating a superior cosmological empiricism through an experimental mode of thought. In this sense, it is quite probable that Peirce would find in Whiteheadian speculative cosmology of the passage of Nature a supreme restatement of classical cosmology coupled with the scientific background of the latter’s day.

reducing the free play of feeling' (*CP* 6.267). What seems dead is merely the manifestation of an institing habit where the crossing of the limit towards perishing and change is remarkably slow compared to biological organisms and allows them to express the same force and yet diverge. The intensity of sentience that is the quality of the First, the bruteness of Relation and the sympathy of Representation are the elements of the unconscious movement of one world that loves or wills itself into multiple existence: 'the universe', Peirce claims, 'is a vast representamen, a great symbol of God's purpose, working out its conclusions in living realities' (*CP* 5.119).

As we will see in the next section, this last sentence gives us simultaneously the apex of agapastic cosmic semeiosis and the gist of what we could call a semeiotic theology. But having laid out the fundamentals of the interconnection of the categories, we can now evaluate the conjunction of tychasm and anancasm into agapasm in terms of our initial question, which pertained to how indifference and interest may be combined in the self-signifying movement of Nature. It is clear from what we have claimed above that the process from potential to actual is indeed indifferent to a particular outcome and this is the particular lesson of tychasm. The logical function of actualisation and re-potentialisation, or what in the third chapter we have called the genetic formula of expression or cosmic Imagination, does not propose to explain away either the variability of the categories in themselves or of their variability of their necessary actual manifestation. The reach of the function, in this regard, is as universal as it is minimal. All the formula demands is that the limit (as potential, actual and intensive) be affirmed so that it can be definitively crossed where it meets the true doctrine of a redefined contingent anancasm. For, as a third itself, all the function schematises or interprets is the passage from the true unconditioned

ground of unreason or un-conscious to the concrete, which may be conscious or not.<sup>167</sup> It is not necessary, however, that we take such indifference to exclude interest. Indeed, the formula exposes interest as the motor power of expression, which is expressed in the universal element of Thirdness and Thirdness is *ipso facto* a *vital* thing, a ‘significant’ element in the happening of actual concretions or phenomenal signs. Here we meet the evolution of indifference and necessity into Love. As the ‘loving’ category *par excellence*, Thirdness is the soul of germinal continuity; plastic, half-breed, and general it is what Peirce calls the principle of ‘fertility’ at the heart of cosmic interpretation:

So prolific is the triad in forms that one may easily conceive that all the variety and multiplicity of the universe springs from it, though each of the thousand corpuscles of which an atom of hydrogen consists be as multiple as all the telescopic heavens, and though all our heavens be but such a corpuscle which goes with a thousand others to make an atom of hydrogen of a single molecule of a single cell of a being gazing through a telescope at a heaven as stupendous to him as ours to us. All that springs from the



– an emblem of fertility in comparison with which the holy phallus of religion's youth is a poor stick indeed (*CP* 4.310).

Every argument we have made so far virtually converges in the above passage. The triadic fertility energising cosmic signification is indifferent to this or that event that is characterised as vital for any concrete sign. Again, the function of interpretation expresses love or vital interest but it literally tells us nothing about what interprets or is interpreted into existence in a continuously determined manifold of significance – as we have demonstrated in the second chapter, in relation to hyperbolic manifolds, what returns unto itself is the process of cosmic selection itself *qua* potential and not the

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<sup>167</sup> ‘This is all the categories pretend to do. They suggest a way of thinking; and the possibility of science depends upon the fact that human thought necessarily partakes of whatever character is diffused through the whole universe, and that its natural modes have some tendency to be the modes of action of the universe’ (*CP* 1.351).

actualities it selects; or, as we have been showing in this section, the function may span from an atom to a concept to the ‘foot of a decapitated frog’ that habitually twitches when irritated (*CP* 2.711). Although there is a difference of degree that obviously makes interpretation matter differently for concretions across the physiological and psychological planes and makes them diverge through a swerving of the law, in essence the activity of interpreting is the same: something must stand for something else to something or someone. This is the minimum of evolutionary Love, which, to summon one of our core theses, enables Peirce to say that deductive, inductive, and abductive inference is not an exercise of reason but an expression of the more fundamental metaphysical categories that reason genetically derives from.<sup>168</sup> As we will see in the next section it is after this point that the route toward the articulation of an ethics of semeiosis is possible.

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<sup>168</sup> As Peirce himself puts it, expanding once more the power of expression over all creation:

The cognition of a rule is not necessarily conscious, but is of the nature of a habit, acquired or congenital. The cognition of a case is of the general nature of a sensation; that is to say, it is something which comes up into present consciousness. The cognition of a result is of the nature of a decision to act in a particular way on a given occasion. In point of fact, a syllogism in Barbara virtually takes place when we irritate the foot of a decapitated frog. The connection between the afferent and efferent nerve, whatever it may be, constitutes a nervous habit, a rule of action, which is the physiological analogue of the major premiss. The disturbance of the ganglionic equilibrium, owing to the irritation, is the physiological form of that which, psychologically considered, is a sensation; and, logically considered, is the occurrence of a case. The explosion through the efferent nerve is the physiological form of that which psychologically is a volition, and logically the inference of a result. When we pass from the lowest to the highest forms of enervation, the physiological equivalents escape our observation; but, psychologically, we still have, first, habit--which in its highest form is understanding, and which corresponds to the major premiss of Barbara; we have, second, feeling, or present consciousness, corresponding to the minor premiss of Barbara; and we have, third, volition, corresponding to the conclusion of the same mode of syllogism (*CP* 2.711).

## 2. Our Glassy Essence, Our Godly Essence

We are forced to acknowledge our limitations, but in the drunken dream of our feelings we remain gods.

C. S. Peirce (W5 Item 50, MS 578, 305)

In the previous section we illustrated how the triadic function of creative semeiosis corrects what would otherwise be an irreparable and detrimental opposition between speculative and practical interest. We can now see with greater clarity that through this function the concept of finality is transformed altogether. Appearing as the unconscious and hence paradoxically indifferent purposiveness of a free Nature, finality is neither restricted to reason nor is it constrained by predetermination. Rather, in Peirce's hyperbolic cosmology of the sign, finality becomes the properly 'erotic' element, if we were to use Empedoclean terminology as Peirce does (*CP* 6.287), which lovingly yet impartially distributes itself to creation without recourse to any other values but those which are immanently or impulsively produced in signification. But at this point another question arises: even if we accept the metaphysical co-articulation of indifference and interest what solace is there for a subject still confronted with the indifferent cosmological production of signs? Why should Peirce call this impulse Love? Are we to understand that, in some way, Peirce is mocking human concerns?

Let us make clear that for a pragmatic mode of thought, which is the study of and experimentation with what is *significant* for each particular concretion and, in this case, what is significant for humans, such mockery would be unacceptable. The problem, as we have hinted at in the previous section, centres specifically on the problem of a loving God, the activity of whom Peirce has tried to capture through the working of the Categories. Peirce will indeed talk about God in familiar terms: God is

benign, infinite, incomprehensible, purposeful (CP 6.466-473). Even the semeiotic triad is often described as a ‘holy trinity’ (W1 MS132 1866, 503).<sup>169</sup> Yet semeiotic cosmology is so far removed from an anthropomorphic and personalised theology that it is more reminiscent of the Spinozist dictum ‘*Deus sive Natura*’ than Christian Trinitarianism – perhaps also the reason Peirce, late in life, counts Spinoza among the founding figureheads of pragmatism (CP 6.490; 8.206). Love, exposing a ‘zoöomorphic, if not a physiomorphic element in all our conceptions’ (CP 5.212), is the essence of a divine yet immanent impulse for expression where each and every act of interpretation is finally addressed in a way where it may indeed stand *to* a subject *for* something else, but without that subject being the terminus of the process of semeiosis. To recall Peirce’s point, signs are ‘addressed to us, [but this] is only the limitation of our selection, and therefore must be abstracted from’ (W1 MS113 1865, 324). In this respect, whilst not mocking the internal need for faith in a loving God, the message of pragmatism to humans is quite particular: the indifference of Love, the very fact that a concretion cannot *consciously overdetermine or control* its evolution, must be affirmed. And it must be affirmed against the onslaught of pessimism that stems from the hurt egotism of a reason, that having lost hold of control, indulges in ominous thoughts:

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<sup>169</sup> In one such interesting account Peirce writes:

Here [...] we have the divine trinity of object, interpretant and ground. Each fully constitutes the symbol and yet all are essential to it. Nor are they the same thing under different points of view but three things which attain identity when the symbol attains infinite information. In many respects, this trinity agrees with the Christian trinity; indeed I am not aware that there are any points of disagreement. The interpretant is evidently the Divine *Logos* or word; and if our former guess that a Reference to an interpretant is Paternity be right, this would also be the *Son of God*. The *ground*, being that partaking of which is requisite to any communication with the Symbol, corresponds in its function to the Holy Spirit. I will not, however, carry this speculation any further [...] (W1 MS132 1866, 503; original emphasis).

There has been a considerable amount of scholarship investigating the importance of Christian theology in Peirce’s thought (for example, see Robinson (2010), Raposa (1989)). Without wishing to downplay this importance, we nonetheless think that it is the Christian trinity explained by the semeiotic paradigm and not the other way round. As such, we would refrain from making the assertion that semeiotic is a metaphysical framework *for* Christian theology.

were it not for the conscious intervention in our physiology, who knows what mysticisms and instincts we might have fallen prey to; were it not for the primacy of reason over the unconscious, how would 'Man' even be possible; were it not for moral law, the Good would not acquire a practical determination. These bleak alternatives finally bring our discussion to a head. For it is this moral blackmail – resulting from a series of dilemmatic schisms and masking its excessive faith on subjectivity with a transcendent theology – that the evolutionary cosmo-logic of semeiosis attempts to dismantle. If Peirce's cosmological pragmatism requires no moral theology for it to stand it is because, contrary to Kant's anthropological pragmatism, it heeds none of the transcendental distinctions that make the privilege and the vocation of Man the creation of a moral nature through the securing of the final end of reason unto itself. In a philosophy where reason is derived genetically from Nature, the fertile un-conscious ground of all ideas, finality – or Thirdness – is indeed purpose but a purpose severed from pre-determination. The Good is not a transcendental value but is expressed immanently as the metaphysical junction of every concretion. Love is said all of creation without any sort of hierarchical value-judgment that would prioritise certain beings over others and without interest in being consciously recognised and reciprocated. In other words, God has become a God-Nature. Correlatively, from a cosmological pragmatist perspective, the vocation and the very evolution of the human might just as well pertain to the cultivation of a different faculty altogether.

The faculty in question finally brings us back to the infinite within, which is the very transformation of Kant's archetypal intellect through a productive conjunction with Socrates' mantic inspiration into what Peirce calls Feeling (which we also variously encountered as intuition and experience, and which we have deemed as the metaphysical substrate of instinct). As we have argued in previous chapters,

Feeling is the Love of God within, the unconscious flow of Nature in the human manifest as the unthought liminal surface where Images as Images are constructed. But before we see what the cultivation of such a faculty would pertain to, we must be mindful of a fundamental constant in Peircean philosophy: the questions that press themselves upon us at any moment do not stem from the 'I' as the 'I' is not even there to pose them. Abduction, in this sense, needs to be taken quite literally. The interpretant is more often than not bombarded by the signs of which it is a part. Hence Peirce's famous metaphor of the eye and the eyebeam, once again recalling the Platonic relation between vision and light,

[each] man has an identity which far transcends the mere animal; an essence, a *meaning* subtle as it may be. He cannot know his own essential significance; of his eye it is eyebeam. But that he truly has this outreaching identity – such as a [sign] does is the true and exact expression of the fact of sympathy, fellow feeling – together with all unselfish interests, – and all that makes us feel that he has an absolute worth [...] [as] actual and potential (*W1 MS 132, 498-499*; original emphasis).

Of course, the absolute worth of human and the cultivation of this worth *via* the cultivation of Feeling should not be taken to entail that we are or can become God – as Peirce puts it, all 'we can catch [is] a fragment of His Thought, as it were (*CP 6.502*). It is obvious that the creative power at the core of signification that allows us to take part in God's activity of expression is nonetheless not owned by us. After all, the indifference of Love has already given us ample evidence on this latter point: that Love is indifferent means that we have no more constructed the human in the image of God than we have constructed God in the image of the human. As *per* the doctrine of Synechism, the God and the human are continuous yet inexpressible in terms of each other and fundamentally different. The topological functionalism of the logic of expression or revelation is precisely meant to make the matter clear. In its triadic

essence, God-Nature is relatively determined in the contingencies of actualised existence yet irreducible to it. Accordingly, our image of ourselves as living insisting patterns and our conscious hopes and desires of being protected and acknowledged, finds neither an equivalent nor a defendant in God. Insofar as we partake in God our essence remains godly; but it is also ‘glassy’, fragile, and finite, as Peirce famously puts it, after Shakespeare, in 1866 (*W1 MS 132 1866*, 491). We refract godliness in our own share in the creation of signs yet we are nothing more than a transparent manifestation of cosmic signification. Here the question of what the human *is* finds its definitive answer: the human is a sign, a symbol of God’s purpose who is constrained by love to self-expression (*ibid.*, 495); or, as Peirce more poetically puts it, the human is a mere ‘wave’ in the ‘vortex’ of signification (*CP 1.220*).

Again, that the human is merely a sign among others, that divine feeling is no match for human feeling, is not a matter of despair. For it is true that our signifying experience cannot reverberate with God’s yet God’s Love remains a gift – a gift, no less, that involves no expectations on the part of the giver. Here Peirce’s classical paradigm of giving, which we have demonstrated to be at the heart of the triadic function of interpretation, acquires a novel significance: God-Nature is free to give itself to every living reality without any other interest besides that of expression. Yet here the obvious question arises: if this is so why should *we* have any expectations of what is given to us and of what we do with this given? Why should one want to overdetermine signification rationally? It is this realisation, simultaneously liberating and experimental, that finally allows the surfacing of what the faculty of Feeling needs in order for it to be exercised – namely, *play*. Peirce writes:

There is a certain agreeable occupation of mind which, from its having no distinctive name, I infer is not as commonly practiced as it deserves to be; for

indulged in moderately [...] it is refreshing enough more than to repay the expenditure. Because it involves no purpose save that of casting aside all serious purpose, I have sometimes been half-inclined to call it reverie with some qualification; but for a frame of mind so antipodal to vacancy and dreaminess such a designation would be too excruciating a misfit. In fact, it is Pure Play. Now, Play, we all know, is a lively exercise of one's powers. Pure Play has no rules, except this very law of liberty. It bloweth where it listeth. It has no purpose, unless recreation. The particular occupation I mean – a *petite bouchée* with the Universes – may take either the form of aesthetic contemplation, or that of distant castle-building [...] or that of considering some wonder in one of the Universes, or some connection between two of the three, with speculation concerning its cause. It is this last kind – I will call it ‘Musement’ on the whole (*CP* 6.458).

With the emphasis on Feeling emerging as the ‘purposeless’ from the viewpoint of reason and hence pure play of the faculties, we may finally see the full transformation in Peirce of the late Kantian mindset of the free accord of the faculties into an aesthetic of thought that, by harbouring no expectation as to the outcome of the exercise, allows the muser to release resistance to the intuitive and free production of signs within and to awaken to one’s community with the cosmic process of signification. Making full circle to his very first allusion of the importance of intuition and its correlation with true metaphysics as the cultivation of oneself in 1861,<sup>170</sup> Peirce writes in 1908:

Enter your skiff of Musement, push off into the lake of thought, and leave the breath of heaven to swell your sail. With your eyes open, awake to what is about or within you, and open conversation with yourself; for such is all meditation (*CP* 6.461).

Of course, this awakening, which now acquires the definite name ‘meditation’ is not of the kind of rational reflection. Cultivation is not culture. Were we to use classical terminology, we could say that the freedom or the experience of God remains at the limit of conscious reflection and, in this sense, we might detect some form of agreement with Kant. However, in Peirce’s case, such unknowability is not due to

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<sup>170</sup> We have opened this thesis with that quote as our original inspiration in going into Peircean semeiotics. See [*Treatise on Metaphysics*] (*W1 MS70* 1861-1862, 60).

God's eminence as articulated in Kant's negative theology. For one thing, as we have been arguing, the question for Peirce is not one of knowledge any more but of what knowledge presupposes as its genetic ground – the concept stands out suddenly as concept *alongside* the felt intensities that it grasps as manifold for the first time; for another, 'knowing' the divine mode of feeling would imply a predetermination of the process of signification and Peirce's categories offer no such abstract description of this process but are what each actualisation pragmatically requires. The awakening to one's community with God, then, is not of a rational kind. But God can be immanently *felt*. This is what meditative musement, which is literally abduction by signs, ensures and what aesthetics becomes in a cosmology of semeiosis. Opening up to the unconscious processes at work – again, variably termed as intuition, feeling, instinct, or abduction – is the first step to an aesthetic experience of growth of the cosmic process as the true ground of anthropological reflection. While Kantian aesthetic and teleological judgment do shake the ground of epistemological stability, they are returned to critique under the threat of the destabilisation of the transcendental apparatus. Peirce, on the contrary, taps into intuition now reconfigured as the liminal yet positive experience of the genetic ground of reason. The sole purpose of meditation, in this sense, is the cultivation of freedom in the human, which is first of all expressible as freedom from the judgmental burden of doctrines that make God-Nature split into dichotomies and from the stranglehold of exaggerated fears of not being able to control what may come and what we may become.

Based on the above, our argument is that the meditative experience of the liminal is at the core of the formulation of a post-critical speculative metaphysics of a infinitely potential living Nature after which the problem of a loving God may be freely articulated in our familiar terms of 'nutrition' and 'growth' – similar to those we

encountered when examining the properly aesthetic nature of hypothesis. As Peirce writes:

If God Really be, and be benign, then, in view of the generally conceded truth that religion, were it but proved, would be a good outweighing all others, we should naturally expect that there would be some Argument for His Reality that should be obvious to all minds, high and low alike, that should earnestly strive to find the truth of the matter; and further, that this Argument should present its conclusion, not as a proposition of metaphysical theology, but in a form directly applicable to the conduct of life, and full of nutrition for man's highest growth. What I shall refer to as the N.A. – the Neglected Argument – seems to me best to fulfill this condition, and I should not wonder if the majority of those whose own reflections have harvested belief in God must bless the radiance of the N.A. for that wealth. Its persuasiveness is no less than extraordinary; while it is not unknown to anybody. Nevertheless, of all those theologians (within my little range of reading) who, with commendable assiduity, scrape together all the sound reasons they can find or concoct to prove the first proposition of theology, few mention this one, and they most briefly. They probably share those current notions of logic which recognize no other Arguments than Argumentations (*CP* 6.457).

With the practice of meditation God is no longer bound to moral propositions. The re-mystification, in paradoxically exoteric terms, of creative intuition elucidates Peirce's attempts at bypassing the strictures of moral theology and organised religion simultaneously through a process of secularisation. Nonetheless, such secularisation does not aim to disqualify religion or to emerge as a new dogma. 'There is [sometimes] a pretension [in philosophy] that the philosophy of religion can be religion' from which Peirce is always careful to abstain (*CP* 8.125). After all, an evolutionary metaphysics worthy of the name could never claim to foreclose what will become of the experience of God in itself or *our* experience of God, although it does imply that religious experience is not necessary for the awakening of Feeling. Appreciating the signs of God can happen everywhere: 'When we gaze upon the multifariousness of nature we are looking straight into the face of a living spontaneity. A day's ramble in the country ought to bring that home to us' (*CP* 6.553). It is this homecoming that becomes the

basis of a proper ethic; the practice of Musement is the *topos* not only of a different aesthetic experience of God but also of conduct. Experiencing Love beyond the egotistical craving for the intervention of a providence that can be nothing else but transcendent, enables an ethic of experimentation which partakes of creation without being at war with the unconscious stream of the world.

We need to linger a little longer on Peirce's unconscious God-Nature if only because it seems to contradict the very image – active ever since classical philosophy and scholastic thought – of God as a supreme being having accrued in it all perfections including, above all, consciousness. The key toward comprehending Peirce's philosophical gesture is first of all to be found in the fact that Unconsciousness, the Un-thought or Un-reason, is not a negative predicate. From a logical perspective, the negative view of the Un-conscious is simply the result of weak reasoning that, in mistaking relative for negative determination, first pits any other mode of intelligence against human self-consciousness and then elevates this self-consciousness to a superlative degree to fit God's power. But beyond reflecting a logical error, such a view is also the product of a double fear: on the one hand, it reflects the fear of the fortuitousness of natural causality (for surely we must be the product of conscious design); and on the other, it reflects the fear of assuming God to be lacking in an aspect so evident in the human. Our argument is that Peirce's pragmatic theology needs to be thought exactly in terms of how it responds to this double bind and its false adherence to necessity and consciousness whether this comes from an atheistic/naturalistic or a theistic perspective. As we have already seen, for Peirce, the alternative to fortuitousness does not have to be overarching necessity; Tychism cannot be responded to with Anancism without making, once again, the concept of purpose split into natural causality and finality. Agapism is therefore the

real middle way carved between ‘purposeless’ naturalism and the final theology of anthropomorphic Theism (of which Hegel’s system is an example) and the only way to uphold finality without reducing it to the model of human reason.

Through the concept of semeiotising Love, finality becomes the purposive activity of a superior intuitive mode of intelligence that by involving and evolving living facts – by expressing its inherent finality in every single concretion where all means and all ends converge – infinitely surpasses the pace of a consciousness that limps from premise to conclusion by way of necessary deduction (no matter how far-reaching that deduction may be). In this sense, not only is the Un-conscious disengaged from a rather inefficient and secondary mode of intelligence but it literally becomes the only mode of intelligence appropriate of God: the experiential Un-conscious is the truly supra-conscious and supra-reflexive. Instead of resorting to Hegelian hyper-rationalism of a godly all-encompassing consciousness, Peirce denies to attribute to God-Nature what is only the limitation of *our* selection. If all limitations must be removed from God, one cannot leave out consciousness. Otherwise, we fall prey to our familiar logic of aggregates against which the topo-logic of semeiotic manifolds we have seen to make a clear point. But assuming God to be a conscious Self or an Absolute Idea as a ‘map’ or ‘aggregate of all Selves’ is not simply inadequate but downright ‘offensive’ (*CP* 8.125). As Peirce adds with his characteristic sense of humour, such an intellectualist gesture, which, having gone cosmic, purports to deduce the structure of a universe is akin to ‘inviting a man to see the body of his wife dissected’ (*ibid.*) The irreducible wonder of the cosmos, which is unconsciously experienced in every moment of our life, is immune to such excursions of reason. Again, our discursive intellect is not insignificant and is free to pursue its own ends. Nonetheless, it cannot do so by presiding over and negatively defining itself against the

very faculty it is genetically derived from; such is the consequence and the requirement of a genetic cosmology of the sign which finally reaches the articulation of a superior empirical theology: the positive superiority of God-Nature is its freedom to have an interest in contingently experiencing its own evolutionary function indifferently expressed in the subject, time, history, and life, by virtue of it being a One-Many where a continuous yet differential plurality of impulses collides in the production of signs. From a negative theology, we move to the felt and immanent God of Pantheism – a conception that we have seen Peirce to nurture consistently throughout his philosophy ever since 1861.

Fully realised, the acknowledgment of the unconscious force of creation could finally be argued to approximate Spinoza's 'adequate idea' – an idea, which as Gilles Deleuze beautifully explains, is not 'representative of states of things or of what happens to us, but of what we are and what things are' ([1970] 1988), 74) and which could be termed properly pragmatic in that it affirms the experiential movement of *pragmata* as not belonging to any-thing or any-one in particular. Correlatively, the only possible mode of conduct is to act by acknowledging the irreducible potential of the world for further and unexpected determinations or, as is the fallibilist's motto, by allowing error to exist. Giving space to error means precisely that a cosmological pragmatist ethics has nothing to do with categorical imperatives *a priori* known and followed. The motor power of ethics is not morality, which as Peirce auspiciously puts it, is 'that branch of anthropology which [...] often passes under the name of ethics' (*CP* 5.130). The '[ethically] good is a particular species of the esthetically good' and the esthetically good is nothing else than our existence at the limit – that existential actuality of presentness that is part and parcel of being embedded into a giant continuous manifold of differential relations of affectibility. It is at the limit, which by

its nature is the intensive junction of past and future affections, that an action acquires ethical significance and an end that 'must be a state of things that reasonably recommends itself in itself aside from any ulterior consideration' (*ibid.*). From this standpoint, that which must-be is a matter of experimentation and experimentation never assumes a transcendent point of view. An ethical act requires the evaluation of degrees, circumstances, and relations expressed as the formation of an insisting habit whose success can perhaps only be judged (always *a posteriori*) in terms of the degree of its suppleness that will enable it to transform into a novel habit if need be. What defines the power of action-habit, in this sense, is the repetition not of uniformity but of the sampling and coalescence of singular signs that transforms the interpreter-actor into that through which novel problems and relations will pass into existence. Accordingly the Good, in its actual manifestation is a matter of acting guided by universal Love felt in its consequences. This Love, actualised every time for each actual occasion, brings out a subtler and more sophisticated view of the Good as something to be learned experimentally through the establishment of habit.

The habitual learning of the Good, which is the founding principle of pragmatism as the observation of the effects of ideas, exposes another particularity in Peircean philosophy, which is tightly bound with the lack of a moral theology. If pragmatism can stand without the latter and if it can propose releasing resistance to unconscious evolution without the looming threat of evil predicted by rationality should it fail to impose order, it is because evil is weakened into a matter of repulsive action. In a manner that is again remarkably reminiscent of the Spinozist response on the matter, evil is characterised by Peirce as no different than pain, an affection that is simply 'repulsive' or 'antipathetical' relatively to us as opposed to the 'sympathy' of pleasure or what is good (*CP* 5.552). The potentially detrimental effects of something

on us notwithstanding (as one may, for example, die after an unfortunate encounter), the concept of evil reflects our inability not only to conceive adequately the neutrality of reaction and of continuous relation – of Secondness and Thirdness – but also our tendency to think the two categories apart. Evil is experienced as evil precisely as a consequence of a degenerate form of Secondness – in other words, evil is perceived as such because we visualise it as a threat to an individuality which we conceive as ‘an aggressive unity, arising from an absolute refusal to be in any degree responsible for anything else’ and that must be saved (*CP* 7.538). But individuality, insofar as we consider as a second, is ‘paired’ with the other seconds with which it is existentially correlated. The core of existential opposition is mutual relatedness (*ibid.*) In this sense, evil is simply an error in our conception of the continuous and indifferent determination of the individual in firsts, seconds, and thirds, thus exposing our ‘glassy essence’, our fear and our egotism, all the more clearly:

The individual man since his separate existence is manifested only by ignorance and error, so far as he is anything apart from his fellows, and from what he and they are to be, is only a negation. This is man,  
 ‘... proud man,  
 Most ignorant of what he’s most assured,  
 His glassy essence’ (*CP* 5.317).

Naturally, the remedy to the egotistical misunderstandings of reason is the exercise of the faculty of feeling. For only then are we able to reach the adequate idea that ‘[in] general, the good is the attractive – not to everybody, but to the sufficiently matured agent; and the evil is the repulsive to the same’ (*ibid.*). Meditation, is precisely meant to cultivate the maturity required to conceive evil as ‘[an] imperfect [stage] of {*agapē*} and {*agathon*}, love and loveliness’ (*CP* 6.287), so that freed from it we may begin to construct habits and create a world that is in alignment with the godly Love that brings everything into existence.

What may the human become, then? The question is one Peirce never asks explicitly and one that an evolutionary metaphysics cannot answer definitively if it is to keep the path of inquiry open. Yet a response is indeed present and it is based on the subtilisation of experience in superior empirical or ethico-aesthetic terms: ‘Esthetic good and evil are closely akin to pleasure and pain. They are what would be pleasure or pain to the fully developed *superman*’ (CP 5.552; added emphasis). Put in terms in which one might find resonances with Nietzschean vision, the reference to a super-human mode of existence is that matured or meditative mode of existence which must be understood semeiotically.<sup>171</sup> As a symbol of God’s purpose, the human will continue to interpret but also be interpreted by a cosmic semeiotic activity constantly bent on expressing itself in insisting and vanishing ethologies of signs. The prefix ‘super’, in this sense, finds its proper respondent in the hyperbole of information that such interpretation entails, which results in a constantly evolving manifold of interlocking values where the ‘person’ – or the conscious subject – finds its *raison d’être* and its genetic ground. Faithful to his topological metaphysics of continuity, Peirce reminds us that

[personality], on both sides, that of the unification of all of a body’s experiences, and that of the isolation of different persons, is much exaggerated in our natural ways of thinking, – ways that tend to puff up the *person*, and make him think himself far more real than he veritably is. A *person* is, in truth, like a cluster of stars, which appears to be *one* star when viewed with the naked eye, but which scanned with the telescope of scientific

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<sup>171</sup> To our knowledge, there is no historical or other indication that the two thinkers are aware of each other’s presence and the purpose of the connection we have brought up here can only hint at the productive intersection between Peirce and Nietzsche, without us being currently able to pursue it in detail. Yet what we find particularly interesting is that for both philosophers the question of ‘man’ is not about a preserving that mode of existence but transforming it or growing beyond it. In many ways, Peirce, like Nietzsche, the question is one of ‘transvaluation’ to use the latter’s term (Nietzsche [1895] 2005, 103), which oddly brings us back to our previous characterisation of interpretation as the transformation of the value of the sign through the increase of information. From this angle, if the human is indeed a sign, ‘transvaluation’ is not an option but the only way for this mode of existence to continue to evolve.

psychology is found on the one hand, to be multiple within itself, and on the other to have no absolute demarcation from a neighbouring condensation (*R* 403).<sup>172</sup>

From the perspective of a topology of evolution, then, the super-human mode of existence refers to overcoming the very concept of the self toward an experimental realisation of a singleness that is not oneness, a community that is not sameness, and a selflessness that is not dissolution. Meditation, itself the distillation of this junction, is meant to open the self up to the risks of this experiment. But we must still remember that the end is not predicted. The super-human does not refer to this or that actualisation but merely the opening up to any actualisation. We may repeat again the question we asked in the beginning of this thesis, this time with a twist. The problem is not what the human is but ‘what can the human as sign do?’ Capturing the essence of pragmatic experimentation the question does not promise to dispel disputes. The creation of a cosmic community does not even promise the genesis of one higher truth. As we have argued in the very beginning of this thesis, Peirce is not sentimental about preserving either one Truth nor the image of the human craving for it. The lines of evolution are necessarily divergent and truth is not meant to give one the opportunity to judge something else as non-truth. Yet what is achieved is the realisation that the immanent genesis of reason finding its true ground in Nature is something familiar to us, something that is manifest in our lives as a gift of the ‘singleness of heart’ (*CP* 6.458) confirming our involvement in the cosmogonic and logo-gonic process.

It is in this last premise that real hope is to be found. Agapism is about the same love for every single sign – for the gods for the human and for a stone – for every experience as the locus of evolution without recourse to the question of evil. God-Nature perpetuates itself in its signs but this perpetuation, which from a human

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<sup>172</sup> I owe this quotation to Fabbrichesi (2009). Peirce’s manuscript number is *R* 403.

viewpoint we might even call salvation, oddly comes through that kind of neutral indifference through which the limit curves and proliferates. *Our* signs and *we* as signs may not endure – that is after all, the premise of selflessness – however the series of signs we are part of will be salvaged by being inscribed to and expressed in other manifolds. Hope is tied to the fact that signification will go on, learning through habit as it goes on, to a point in evolution where Thirdness will be experienced as a cosmic destiny, not distant and aloof, but as a felt reality. The lesson of a cosmological pragmatism is that *our* future, relevant to our felt reality, our own lives, and interests, is not a matter of our conscious domination of what we are but belongs to the unthought power of God-Nature which constantly churns our experience by opening us up to the unknown. It is this openness, experienced as the germinal crisis of abduction by signs, full of wonder and gesturing to a futurity beyond oneself, that makes one part of an evolving cosmic process of signification.

## Conclusion

That cosmological pragmatism begins and ends with abductive meditation as that pre-reflexive faculty in the human, which not only resists but also grounds reason and ensures its evolution, may well be Peirce's greatest philosophical contribution. As we have argued in this thesis, the generative expression of non-human at the heart of the human is the invisible thread binding together this remarkable palimpsest of texts, the interpretation of which, Peirce would say, is not unlike the very cosmic interpretative process that subtends them. Abducted by so many lines of intersecting and ever-growing arguments, the reader is called to experience a semeiotic mode of thought that is open, hyperbolic, and thriving at the limit. The invitation Peirce extends is for one to experiment with signs beyond the split between physiology and anthropology. For telling the story of human signs and of the human as sign is the same as telling the story of the signs produced by all other modes of creation as veritable God-signs themselves. It is moreover to discover the proliferation of ever more sophisticated and subtle modes of signification that may lead to the construction of one world the survival of which is dependent on the affirmation of these infinitesimal neighbourhoods that make semeiotic novelty possible – namely, these neighbourhoods that demand that the signifying expressions of a philosopher, a scientist, and a spiritualist, of a rock and an animal be treated as signs equally and with respect to the series of signs of which they are a part and in which they acquire and generate meaning.

In tracing all these lines in Peirce's thought, our purpose has been to open up the possibility for thinking Peircean philosophy in a way that does justice to the connectedness of semeiotics with a post-critical lineage. We have argued that the depth of semeiotics is to be evaluated in terms of its direct or indirect engagement with the

lingering problems that define philosophical modernity and have tried, by excavating Peirce's responses, to see what there is in semeiotics that makes it a truly cosmological thought. Having started with the nexus of the Kantian crisis of reason with its detrimental effect on metaphysics, the ultra-rationalist excess of Hegelian reason seeking to reduce everything to the logical movement of the concept, and, finally, the nascent crisis of psychology constrained by the aporias of its own naïve empiricism, we showed that Peircean thought nonetheless finds a way to affirm the sober Love of a God-Nature which un-consciously produces its own signs.

In the system of cosmic semeiosis, neither reason nor its ends are negated; but then again reason cannot be seen to preside over evolution. Instead, it is genetically integrated in the genetic stream of the unthought, which exposes the suprasensible as the liminal experiential site where reality itself is constructed. From the other side of the Atlantic but very close to his contemporaries in the continent, Peirce – perhaps unknowingly but no less substantially – joins the current demanding the return of a non-nihilist metaphysics without returning to spherically ordered ancient cosmologies. In many ways, then, the hyperbolic cosmologic of signs stands at the very centre of the problematic that Nietzsche and Bergson occupy. Peirce demands a phenomenology that does not constrict itself in the phenomenal life-world of the anthropic, a psychology that is one of affection, and a speculative thought that has vital interest at its core.

It is in the junction of all these demands that the task of the pragmatist is defined. Keeping in mind the metaphysical unconscious source of signification, the pragmatist must make sure that the divergent paths of signification be kept open and clear of the judgmentalism of rational anthropology. As we have said in the beginning of this thesis, experimentation means to follow the construction of problems without

predetermining their solution. Above all, the pragmatist displays an allegiance to a superior empiricism, which responds to methodological closure with systematic openness. 'Always stand ready to accept the truth whatever it may be', writes Peirce, and this is a call for an ethico-aesthetic construction of signs (*W1 MS 128 1866, 454*). It is here that the discriminatory power of semeiotic logic over the pseudo-logicisms of a hypertrophic rationalism is most clearly exposed: abduction offers a gateway into the unconscious as a truly experimental and meditative mode of thought through which the we can simultaneously reveal and construct ourselves at the junction of cosmic creation. And what we stand to gain from such meditation is nothing more and nothing less than a say in our own evolution.

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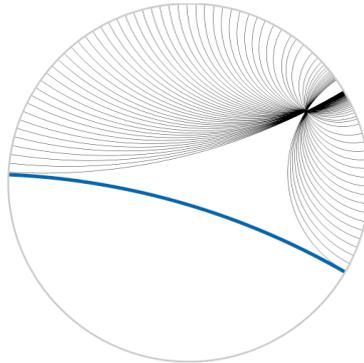
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## Appendix

**1. Illustration of Poincaré Disc Model of Ultra-Parallel Lines** (Available at: [http://en.wikipedia.org/wiki/File:Poincare\\_disc\\_hyperbolic\\_parallel\\_lines.svg](http://en.wikipedia.org/wiki/File:Poincare_disc_hyperbolic_parallel_lines.svg))



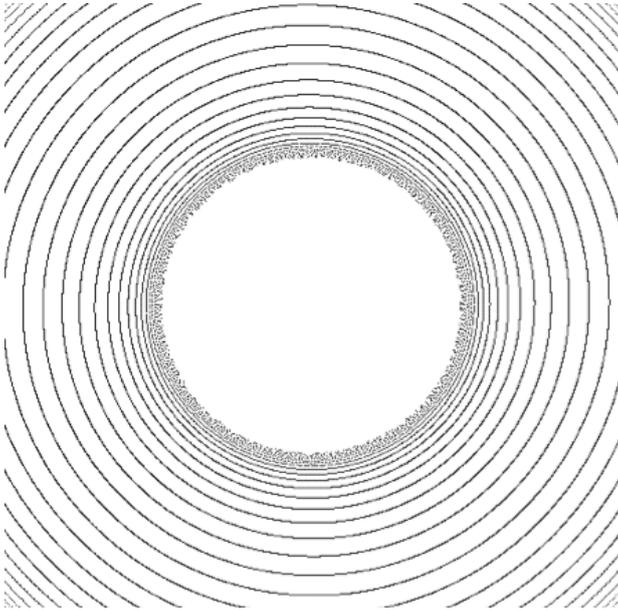
**2. Peirce's Measurement of Time and the Three Spirals** (Reconstructed from Peirce's original writings by Mohammad Majid al-Rifaie)

The question, however, is, What is the natural mode of measuring time? Has it absolute beginning and end, and does it reach or traverse infinity? Take time in the abstract and the question is merely mathematical. But we are considering a department of philosophy that wants to know how it is, not with pure mathematical time, but with the real time of history's evolution. This question concerns that evolution itself, not the abstract mathematical time. We observe the universe and discover some of its laws. Why, then, may we not discover the mode of its evolution? Is that mode of evolution, so far as we can discover, of such a nature that we must infer that it began and will end, whether this beginning and this end are distant from us by a finite number of days, hours, minutes, and seconds, or infinitely distant? In order to aid the reader in

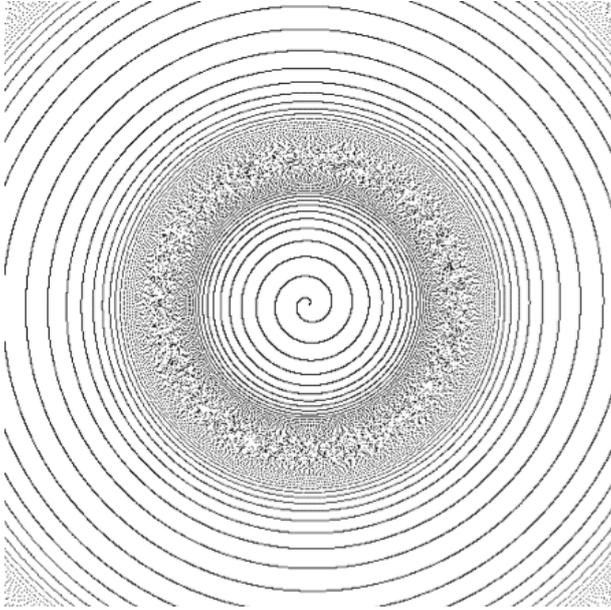
conceiving of a department of study which should make use of the discoveries of science to settle questions about the character of time as a whole, I have drawn three varieties of spirals. The first of these has the equation  $\Theta = (360 \cdot \text{Log } 3) \log((r-1 \text{ inch})/(3 \text{ inches}-r))$ . Imagine each revolution round the centre of the pencil point tracing the spirals, to represent the lapse of a year or any other cycle of time; and let  $r$ , the radius vector, represent the measure of the degree of evolution of the universe -- it is not necessary to attach any more definite idea to it. Then, if the universe obeys this law of evolution, it had an absolute beginning at a point of time in the past immeasurable in years. The degree of its stage of evolution was from the very first a positive quantity, 1; which constantly increases toward 3 which it will never surpass until its final destruction in the infinitely distant future. The second spiral is not strictly logarithmic. Its equation is  $\Theta = 360 \cdot \tan((90 \cdot r)/(1 \text{ inch}))$  Here again the universe is represented improving from a stage where  $r = 1$  in the infinitely distant past to a stage where  $r = 3$  in the infinitely distant future. But though this is infinitely distant when measured in years, evolution does not stop here, but continues uninterruptedly; and after another infinite series of years,  $r = 5$ ; and so on endlessly. We must not allow ourselves to be drawn by the word "endless" into the fallacy of Achilles and the tortoise. Although, so long as  $r$  has not yet reached the value 3, another year will still leave it less than 3, yet if years do not constitute the flow of time, but only measure that flow, this in no wise prevents  $r$  from increasing in the flow of time beyond 3; so that it will be a question of fact whether or not, so far as we can make it out, the law of general evolution be such as to carry the universe beyond every fixed stage or not. It is very curious that in this case we can determine at exactly what season of the year in the infinitely distant future the value of  $r$  changes from being infinitesimally less to being infinitesimally more than 3. In the third spiral, of which the equation is  $1/(r - 1/2 \text{ inch}) = 3 \log (1 + \text{anti-log}$

(90•/(\$-90•)), the universe was created a finite number of years ago in a stage of evolution represented by  $r = 1/2$ , and will go on for an infinite series of years approximating indefinitely to a state where  $r = 2$ , after which it will begin to advance again, and will advance until after another infinite lapse of years it will then in a finite time reach the stage when  $r = 3 \frac{1}{2}$ , when it will be suddenly destroyed. This last spiral is much the most instructive of the three; but all are useful. The reader will do well to study them (*CP* 1.276).

$$1. \Theta = (360 \bullet / \text{Log } 3) \log((r-1 \text{ inch}) / (3 \text{ inches}-r))$$



$$2. \Theta = 360 \cdot \tan((90 \cdot r)/(1 \text{ inch}))$$



$$3. 1/(r - 1/2 \text{ inch}) = 3 \log (1 + \text{anti-log } (90 \cdot (\$ - 90 \cdot)))$$

