

The *highest* branch of logic? On a neglected question of speculative rhetoric

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Abstract. C. S. Peirce once described philosophical rhetoric as “the highest and most living branch of logic”. This article outlines a new interpretation of what prompted this unexpected elevation of the third subdivision of semiotic (understood as logic in the broad sense), and explores some of the implications of the proposed reading. Two plausible explanations are identified, leading to an exposition of Peirce’s equally puzzling association of rhetoric with objective logic in the 1890s. The final part of the essay briefly addresses the question of how Peirce’s subsequent shift from rhetoric to methodetic may have affected his conception of the concluding branch of logic.

Keywords: Charles Peirce, speculative rhetoric, objective logic, methodetic, development, logical evolution

In some striking passages, C. S. Peirce describes pure or speculative rhetoric as “the highest and most living branch of logic” (CP 2.333, c. 1895–1896),¹ a department of inquiry “destined to grow into a colossal doctrine which may be expected to lead to most important philosophical conclusions” (CP 3.454, 1896). However, after a review of Peirce’s seminal work in logic and semiotic it is difficult not to regard these statements as rather hyperbolic. Even if it were granted that this conception of rhetoric includes

¹ This quote stems from a manuscript that has been scattered around the *nachlass* and the *Collected Papers*. The dating is uncertain. However, in one fragment (MS 805), Peirce refers to a paper on his table, where the phrase “some questions were asked the junior class in psychology in Columbia College in March 1893” occurs. This is most likely a reference to J. McKeen Cattell’s “Measurements of the accuracy of recollection” (*Science*, Dec 6, 1895), where, but for the omission of the word “were”, this exact sentence can be found. This, in addition to the fact that the manuscript in question deals with certain topics in Ernst Schröder’s algebraic logic, shows that it was most likely written in late 1895 or early 1896. Although this may look like a rather pedantic concern with relatively insignificant details, the dating of the texts under scrutiny is of interest for getting to the bottom of the issues to be discussed in this article.

pragmatistic clarification of meaning in addition to some other prominent Peircean interests, it is hard to avoid the conclusion that the proper place of the third branch in his hierarchy of inquiries lies beneath its siblings – that is, below speculative grammar and critic, two subdivisions of semiotic logic to which he paid far more systematic attention than to the rather scrappy field of speculative-rhetorical inquiry.

Is Peirce's elevation of rhetoric to the pinnacles of logic then merely a polemical exaggeration, if not a case of momentary derangement? In this article, I will sketch a new interpretation of what the self-professed "exact logician" may have had in mind when making such puzzling claims. The answer – which will be revealed in the course of the discussion – may have been hidden in plain sight, so to speak, basically overlooked by all of the scholars that have taken an interest in Peirce's speculative rhetoric and the broader questions of the semiotic trivium.

There are at least three reasons why the almost obvious solution – if not the fact that there is an interesting question here to begin with – has been ignored by readers of Peirce, myself included. Firstly, Peirce's laudatory remarks regarding rhetoric occur in the middle of a phase – roughly, 1893–1898 – when he was resuming his youthful interest in the theory of signs after a longish hiatus.² So far, nobody has tried to piece together a detailed chronological account of this relatively short period from this point of view; but once that is done, some overlooked patterns do begin to emerge. Secondly, Peirce's remarks on rhetoric are admittedly few and scattered, and hardly seem to delineate anything like a clear-cut scientific discipline or an immense doctrine. However, as we shall see, some of his ostensibly cryptic remarks do suggest a rather far-reaching creed – which, of course, does not automatically guarantee that the ideas behind it are plausible or worth pursuing. That, indeed, may be linked to the third possible explanation: the fact that Peirce, not long after elevating speculative rhetoric to unexpected heights, appears to abandon it for methodoetic – or at least shifts his attention toward narrower but better focused issues of methodology. Thus, in the concluding part of this essay, I will briefly consider what happens to the highest branch of logic in the wake of the methodoetic makeover.

Hypothesis I: Scientific contributions

Peirce initially introduces his trivium of semiotic inquiries as a set of specializations of the study of symbols – or "symbolistic" – in the mid-1860s. In "On a new list of

² Here, I use a rather simple criterion for determining what belongs to semiotic, limiting myself to clear references to the sign-theoretical trivium and ignoring the question of the possible semiotic character of logical and pragmatic issues not plainly treated within such a frame. A fuller account of the vicissitudes of Peirce's theory of signs would have to take a broader view, but for the limited aims of this article, the narrower perspective arguably suffices.

categories" (1867), rhetoric is defined as a science treating "the formal conditions of the force of symbols, or their power of appealing to a mind, that is, of their reference in general to interpretants" (W 2: 57). That established, references to this branch of scientific inquiry basically vanish from Peirce's writings for more than twenty years. They return, initially without much ado, in the first half of the 1890s. As far as I have been able to make out, the occasion of the reoccurrence is one of Peirce's ill-fated attempts to produce a comprehensive presentation of his logic – or rather, the series of interconnected book projects variously designated as *The Art of Reasoning*, *How to Reason*, and *The Grand Logic*.

In any case, in a prospective chapter on "The logic of quantity", Peirce inserts what at first blush appears to be a minor parenthetical remark regarding his tendency to stress "balance and symmetry in logic" (CP 4.116, 1894³). He notes that such factors are highly relevant in the art of reasoning, but he does not concede that they would be strictly speaking required by the science under scrutiny. Still, he connects these reflections with his old conception of rhetoric as a study of the force of symbols, adding that "the *Grundsatz* of Formal Rhetoric is that an idea should be presented in a unitary, comprehensive, systematic shape" (CP 4.116, 1894). This he proceeds to explicate in terms of how a mathematician reveals an underlying intelligible order by *adding* elements to a diagram that at first appears incomprehensible because of the complexity of its components (in this case, lines). Peirce designates such a regularity-revealing enlargement of a system "the prime principle of the rhetoric of self-communing" (CP 4.116, 1894). In a more specific example, he then shows how this rhetorical rule might be applied to the concept of infinity, illustrating the way in which the mathematician can supplement facts "in the interest of formal rhetoric" (CP 4.117, 1894).

Although seemingly far removed from the traditional rhetorical interests in persuasion and the art of discourse, these sparse remarks on the rhetoric of mathematics do involve a focus on the expressive power of signs – here ostensibly limited to symbols, but later typically discussed in terms of iconicity – that implies one possible explanation for Peirce's newfound appreciation for rhetoric. In the passages mentioned, he draws rhetorical lessons from the purported practices of the mathematician, possibly also anticipating some later suggestions concerning the methodic of theorematic reasoning and "the heuritic part of mathematical procedure" (NEM 4: 49, 1902; NEM 4: 46, 1902).⁴ At any rate, from this perspective,

³ This manuscript (MS 423) has been dated 1893 in *The Collected Papers* and the catalogue compiled by Richard Robin. However, based on some *in-text-references*, it was actually composed in 1894, something that Peirce corroborates in a letter to F. C. Russell (MS L387, Oct 7, 1895).

⁴ That such considerations have at least something to do with Peirce's recovery of rhetoric is also suggested in the earlier "On the algebra of logic" (subtitled "A contribution to the philosophy of notation"), where he expresses the hope that his efforts "may prove a first step

Peirce's persistent highlighting of issues related to notation would be a primarily rhetorical concern. It is a thread running through much of his thought, formal logic and mathematics included.

Also, as the proposed leading principle or primary rule of rhetoric is something purportedly applicable in and to other forms of inquiry, these reflections seem to point toward certain methodological concerns. In a more normative tone, the somewhat later *Short Logic* (1895) characterizes speculative rhetoric as “the general foundation of the art of putting propositions into effective forms”, and associates it with the endorsement of “forms of thinking as will most economically serve the purpose of Reason” (EP 2: 19). Here, one may discern the emergence of the notion that the art of expression is to be preceded or backed up by a science concerned with its principles, in addition to a nod to the economy of research. This scientific or disciplinary justification for the recovery of speculative rhetoric seems to be upheld in “The regenerated logic” (1896), where Peirce defines the core task of the third branch as “the study of those general conditions under which a problem presents itself for solution and those under which one question leads on to another” (CP 3.430), as well as in “That Categorical and Hypothetical Propositions are one in essence, with some connected matters” (c. 1895–6), in which he argues for the need of a third branch of logic by appealing to the very nature of scientific inquiry itself.

Science is a living process and not a fixed result. Consequently, it is not sufficient to find the general conditions of the truth of a representation. It is necessary further to study the laws of the development of scientific representations. I have named this study, rather fancifully, *speculative rhetoric*, for the sake of utilizing a well-known trivium, or triad of names for sciences, and also to signify what it seems to me must be the main problem of this third logical branch, namely the influence of one thought upon another thought. (MS 787:11 (c. 1895–1896))

Thus, with logic in the broad sense characterized not only as semiotic (CP 1.444, c. 1896), but also as the science of what is “universally true respecting scientific representations” (MS S64), rhetoric would appear to have found its niche in a classificatory framework where “the general order of study” is given hierarchically as mathematics → logic → metaphysics → the special sciences (MS 787s: 7, c. 1895–1896).⁵ As a part of “exact logic”, rhetoric seems to have been assigned the significant task of unearthing laws of scientific representation or sign use. Consequently, given that “Categorical and hypothetical propositions” also happens to be the source of the passage promoting speculative rhetoric to the uppermost echelons of logic, we would seem to

toward the resolution of one of the main problems of logic, that of producing a method for the discovery of methods in mathematics” (W 5:166, 1885). Notably, he also discusses “second-intentional logic” in this context.

⁵ At this stage, Peirce's conception of philosophy includes only two broad divisions, those of logic and metaphysics.

have arrived at a rather plausible answer to our primary question: it is the distinctive service that rhetorical investigation is supposed to render for the advancement of science that warrants the talk about rhetoric being the highest branch of logic.

One fairly obvious, but perhaps not decisive, counterargument to this account relates to the actual position of speculative rhetoric in Peirce's classification of the sciences. Clearly, the third branch is not the "highest" in this respect; rhetoric is actually portrayed as reliant on the more abstract logical departments of grammar and critic. It is perhaps not self-evident that Peirce's schematic arrangements should be given this much weight, as they are often viewed as retrospective exercises of the science of review (see, e.g., EP 2: 258–259, 1903; MS 601: 26, c. 1906). However, the fact is that the Comtean principle of dependence, which determines the non-reciprocal organization of the classification, also informs Peirce's conception of science at a fundamental level, beginning with the antecedence of theoretical or heuritic inquiry over practical sciences or arts. In response, it could be argued that the unexpected elevation of rhetoric may have been something of an exaggeration, but that it is nonetheless attributable to the growing stature of rhetoric in Peirce's conception of scientific inquiry.

However, a closer look at the setting in which Peirce refers to speculative rhetoric as the topmost subdivision of logic complicates the picture. The sudden bolstering of the third branch in "Categorical and hypothetical propositions" and the anticipation of a colossal doctrine in "The regenerated logic" are actually triggered by Peirce's critical reflections on Schröder's *Algebra der Logik* (1895). In spite of the intellectual kinship between the two logicians, there are aspects of Schröder's algebra that Peirce finds profoundly problematic. He is troubled by what he perceives to be the German logician's loose practices of notation and attribution (see, e.g., MS 520). Peirce also has some qualms about the overly formalistic penchant of his fellow-traveller in the world of relatives – producing "too many bushels of chaff *per* grain of wheat", as he metaphorically puts it (CP 3.451, 1896) – and he expresses some concern regarding an apparent lack of interest for the broader applications of the new logic (MS L387, Oct 4, 1895). Yet, in Schröder's recognition of the value of "rhetorical evidence" – which Peirce interprets as the thesis that "we can directly observe what is familiar to our experience of assertions and seems to be inseparable from them" (CP 2.333, c. 1895–1896)⁶ – he detects a standpoint broadly in harmony with his awakening rhetoric.

⁶ Peirce does not provide a reference to *Algebra der Logik*. Perhaps committing a minor violation of ethics of terminology, Peirce's use of "rhetorical evidence" does not seem to fully accord with the way the term is employed by Schröder, by whom it is contrasted to analytical and geometrical evidence (see Schröder, 1895: 64–5). However, in the contention that "[die] dritte Art von Evidenz, die rhetorische, ist die im gewöhnlichen Denken wirksame" (Schröder 1895: 66), one can arguably detect certain similarities with Peirce's notion of common experience (see, e.g., CP 8.112, c. 1900). More boldly, one could surmise that it is not a coincidence that Peirce's conception of philosophy as a study of everyday or ordinary experience also emerges – or at least receives a considerable boost – during this period (see, e.g., NEM 4: 273, c. 1895; MS 787: 5, c. 1895–1896).

At first blush, Peirce's affirmation of rhetorical evidence might not seem to amount to much more than a profession of the need for experiential testing of certain results obtained by purely theoretical means. As he argues that basic logical analysis – here portrayed as a scrutiny of assertion⁷ – needs to employ two kinds of reasoning, we seem to be presented with a fairly standard picture of a deductive or “systematical” derivation of “quasi-predictions”, followed by an inductive phase in which we “turn to the rhetorical evidence and see whether or not they are verified by observation” (CP 2.333, c. 1895–1896) – that is, a basic anti-Baconian division into *a priori* and *a posteriori* stages of reasoning (cf. EP 2: 289, 1903). However, Peirce actually maintains that the systematical phase entails a deduction of “what the constituents of assertion must be from the theory [...] that truth consists in the definitive compulsion of the investigating intelligence” (EP 2: 289, 1903). The twist to this story is that the turn to rhetorical evidence also entails a *return* to the very sources of an “already accepted proximate analysis of evidence”, from which the minute analysis of assertion proceeds (MS 805: 18, c. 1895–6; MS 787: 12, c. 1895–1896). Put differently, the starting point is what one could imprecisely call “rhetorical raw materials”: the initial, uncritical recognition of ingredients of the *logica utens*, such as characteristics of doubt, belief, and other compulsions on “scientific intelligence”⁸ (cf. MS 787: 12–15, c. 1895–1896).⁹ This could perhaps be characterized as an abductive-rhetorical phase in the course of logical investigation.

Granted, all this seems to pertain more to an informal reconstruction of the general process of inquiry – not too far from the well-known picture painted in “The fixation

⁷ Later, Peirce will introduce a sharper distinction between a proposition – or eventually, in more precise semiotic terms, *dicent* – and its assertion, with the latter taking on a somewhat secondary pragmatic role (see, e.g., MS 599: 6, c. 1902; CP 5.543, c. 1903; SS 34, 1904; CP 8.313, 1905).

⁸ By ‘scientific intelligence’, Peirce does not mean to suggest scientific activity of the developed disciplinary variety; the term actually refers to “an intelligence that needs to learn and can learn (provided that there be anything for it to learn) from experience (MS 787s: 6–7, c. 1895–1896; cf. CP 2.227, c. 1897). It is not necessarily human. Similarly, “scientific representations” are not scientific propositions in a narrow sense, but rather representations that are capable of embodying “knowledge acquired by intellectual operations upon experience” (MS 787:10, c. 1895–1896).

⁹ Admittedly, this reconstruction goes beyond Peirce, and seems to clash with certain other aspects of his programme. However, the proposed reading accords with his later contention that philosophical analysis must not “begin by talking of pure ideas, – vagabond thoughts that tramp the public roads without any human habitation, – but must begin with men and their conversation” (CP 8.112, c. 1900). Something similar can also be detected in Peirce’s “derivation” of the basic components of the sign relation from the functions of ordinary utterance and interpretation (see EP 2: 403–410, 1907). In these cases, the *logica utens* might almost as well be called the *rhetorica utens*.

of belief” (1877) – than to a truly systematic account based on logical precedence and principle-dependence. However, that is partly the point; since we are trying to fathom why Peirce refers to rhetoric as the highest branch of logic, to merely register its relatively subordinate position in relation to grammar and critic can hardly be the answer – especially as many of the texts under scrutiny also present prototypes of the hierarchical schemes more familiar from the writings of the 1900s. Still, while the Schröder-induced recognition of the significance of rhetorical evidence may have been one influence on Peirce’s endorsement of speculative rhetoric, this hardly suggests the advent of a “colossal doctrine” with far-reaching philosophical implications. At heart, the polemical edge of his argument is directed against narrow formalism. In another unexpected turn of events, Peirce ends up extolling rhetorical evidence *because of* its formal deficiency, and he declares that its “essential and ineluctable imperfection measures the depth and truth of the method which sinks its plummet beyond those superficial parts of the mind which are alone susceptible of exact definition” (MS 805: 18, c. 1895–1896; cf. CP 2.333, c. 1895–1896) – something that strengthens the impression that he is not talking about mere inductive testing. Stretching our metaphors a bit, we could say that what we are dealing with here is not really the height of rhetoric, but its depth.

I do not think that this closes the curious case of the elevated rhetoric. There are still two factors that have not been considered, the first of which is the claim that the main problem of the third logical branch is “the influence of one thought upon another thought” (see quote above). This is certainly reminiscent of the early definition of formal rhetoric as a study of the force or power of symbols; yet, it involves a small but arguably significant shift in focus that is easy to miss. This principal question of rhetoric is not characterized in terms of conditions affecting the symbol merely, but of the process in general (or, to use later terminology, of mental *semiosis*). Accordingly, Peirce defines speculative rhetoric as “the study of the necessary conditions of the transmission of meaning by signs from mind to mind, and from one state of mind to another” (CP 1.444, c. 1896). In somewhat more general terms, the task of the third branch is specified as the ascertainment of “the laws by which in every scientific intelligence one sign gives birth to another, and especially one thought brings forth another” (CP 2.229, c. 1897).

This brings us to another intriguing aspect of Peirce’s discussions of speculative rhetoric in the 1890s. In several characterizations of its field and tasks, he states that philosophical rhetoric is tantamount to, or at least nearly synonymous with, something that he calls “objective logic” (CP 1.444, c. 1896; CP 3.430, 1896; cf. MS 839).¹⁰ Peirce

¹⁰ ‘Formal rhetoric’ (pub. 20.05.15–20:19). Quote in Bergman, Mats; Paavola, Sami (eds.), *The Commens Dictionary: Peirce’s Terms in His Own Words. New Edition*. Retrieved from <http://www.commens.org/dictionary/entry/quote-fragments-r>.

is acutely aware of the negative connotations of the term (see, e.g., MS 915); yet, he maintains that it “conveys the correct idea that [speculative rhetoric] is like Hegel’s logic” (CP 1.444). It is almost as if the use of the term “rhetoric” were not controversial enough.¹¹ Evidently, the Kantian advocate of exact logic also wishes to link its third branch with a Hegelian logic of evolution.¹²

Hypothesis II: Evolutionary developments

To understand what Peirce’s rather cryptic references to objective logic may entail, we first need to take a step or two back. In an 1895 letter to F. C. Russell, Peirce mentions abandoned plans for an article dealing with a branch of philosophy that he variously calls “Second Intentional Logic, Objective Logic, & Pure Rhetoric”, and which he then summarizes as “the doctrine of the Evolution of thought” (MS L387, Oct 4; W 8: xciv). The essay in question would have been the 6th installation – and purportedly the “the Keystone of the whole” – in his well-known metaphysical or cosmogonic series, published in *The Monist* between 1891 and 1893. This might suggest *synechism* (cf. CP 8.257, 1902), but given that this “tendency to regard everything as continuous” (EP 2: 1, 1893) is dealt with in the third article, it seems unlikely that the pivotal upshot would have been a mere repetition of the synechistic credo. Rather, the gist of the climax would most likely have been an account of a generalized theory of evolution under the heading of objective logic.

The extant metaphysical series offers only some suggestions of what might have been. In the articles, there is no explicit mention of rhetoric or second-intentional logic. However, in “The law of mind” (1892), Peirce does sketch a broadly idealistic conception of communication that may provide some indications of what the rhetorical outcome of the final piece could have been (see W 8: 155–156); and in “The doctrine of necessity examined” (1891), we do find a relevant reference to objective logic.

I make use of chance chiefly to make room for a principle of generalization, or tendency to form habits, which I hold has produced all regularities. The mechanical philosopher leaves the whole specification of the world utterly

¹¹ In a somewhat contrarian fashion, Peirce avers that for him personally, the term “rhetoric [...] gives that sort of satisfaction which so many schools have manifested in adopting appellations invented by their opponents as depreciative” (CP 2.333, c. 1895–1896).

¹² Here, I restrict myself to Peirce’s sparse comments on Hegelian logic in relation to the reconception of the trivium. A fuller account of these developments would require a closer look at how Hegel actually comprehends the relationship between objective and subjective logic in addition to a host of other complex issues; but for now, I will simply ignore the question of whether Peirce’s interpretation is fair or not. The “Hegel” of this article is Peirce’s Hegel.

unaccounted for, which is pretty nearly as bad as to baldly attribute it to chance. I attribute it altogether to chance, it is true, but to chance in the form of a spontaneity which is to some degree regular. It seems to me clear at any rate that one of these two positions must be taken, or else specification must be supposed due to a spontaneity which develops itself in a certain and not in a chance way, by an objective logic like that of Hegel. This last way I leave as an open possibility, for the present; for it is as much opposed to the necessitarian scheme of existence as my own theory is. (W 8: 124–125)

Here, Peirce recognizes two major metaphysical alternatives: the mechanical or *necessitarian* view, which traces the specification of the world back to the beginning of time and renders it and law ultimately inexplicable, and *tychism*, which attributes specification to a partly regular spontaneity. This is rather vague, and Peirce ends up doing a better job in refuting necessitarian arguments than in explicating his own position. It is perhaps not surprising, then, that he leaves the third, quasi-Hegelian option open. The important thing to note, however, is that objective logic has evidently not yet taken on the role proposed for it in the letter and in other writings to come. Somewhat later, Peirce actually appears to be on the verge of closing the third path. In a draft of “Evolutionary love” (1891–1892), he characterizes “development under a rule of logic” or “inward necessity” as a degenerate form of the “anacastic development of thought”, which “proceeds in a sort of Hegelian course” (i.e., dialectically), in contrast to genuine anacasm, which is “development under the influence of the external world” where habits are broken up by “the logic of events” (W 8: 415).¹³ Thus, with Hegelian development reckoned to be a mode of evolution by mechanical necessity, it seems fair to assume that whatever Peirce has in mind when affirming a kind of objective logic, it is not precisely like Hegel’s logic, after all.

The first definite indication that Peirce actually has embraced some version of the Hegelian option is found in the prospectus for the never-completed *Principles of Philosophy* (c. 1893), where he claims to have uncovered an objective logic that *follows* from “the philosophy of continuity” (i.e., from synechism). Not much is said about the contents of this new doctrine, except that its movement differs from Hegel’s dialectic. In a letter dealing with his prospective *The Art of Reasoning*, Peirce suggests the need for a separate volume on second-intentional logic, where he would show that it really amounts to an objective or material logic – “something like Hegel’s logic, one idea developing into another”, but with Hegelian dialectic treated as a particular case of a

¹³ In the published article, basically the same distinction is introduced without reference to Hegel or the logic of events: “The anacastic development of thought will consist of new ideas adopted without foreseeing whither they tend, but having a character determined by causes either external to the mind, such as changed circumstances of life, or internal to the mind as logical developments of ideas already accepted, such as generalizations” (W8: 196, 1892).

more general formula (MS L387, p. 15 [Sep 5, 1894]; cf. MS L387 [Sep 28, 1896]).¹⁴ In the same letter, Peirce puts forward a plan for a first volume on necessary reasoning, where, in a division designated as “Methodology”, one also finds a chapter on “Formal grammar and formal rhetoric”, which Peirce claims to be “nearly ready”.¹⁵ Note, however, that there is at this point no overt indication that rhetorical investigation would have anything to do with objective logic. Nor is the connection made in the roughly contemporaneous manuscript chapter on “The logic of quantity” (discussed above), where Peirce does make some use of his old conception of rhetoric, but without reference to either objective logic or second-intentional logic.

Fragmentary as they are, these appear to be the first concrete signals of the impending recovery of rhetoric. However, when one reviews the manifestations of rhetoric and objective logic in the first half of the 1890s, it is the latter that at first emerges as a genuinely innovatory point of view in Peirce’s philosophy. Consequently, when he does link rhetoric with objective logic in the 1895 letter, it does not amount to the introduction of just another name for the third branch,¹⁶ rather, this joining implies a rather substantial, albeit largely implicit, reconsideration of the role that the long-neglected field of speculative rhetoric might yet play in his grand philosophical vision. In the same context, Peirce finally reveals the “true formula” of objective logic, of which Hegel’s dialectic, generalization, and the formation of systems in the logic of relatives¹⁷ are purportedly degenerate forms: it is the attraction between ideas, or the power of evolutionary love (MS L387, Oct 4, 1895). In other words, as objective logic, rhetoric has been transformed into a logic of development – or, perhaps more accurately, into something harbouring the promise of the formation of such a theory. In view of its modest beginnings as the poor sibling of logic proper, this is in any case a remarkable makeover.

¹⁴ In a chapter apparently intended for *The Grand Logic*, Peirce identifies objective logic with second-intentional logic, but the ensuing formal discussion does not clarify how it is meant to amount to a logic of development – if, indeed, it is even supposed to do so (see CP 4.80–84, c. 1893–1894). Beverley Kent (1977: 142) views this as a distinct use of the term ‘objective logic’, and contends that second-intentional objective logic is actually a mathematical study. In fact, her rationale would render all formal logic a part of mathematics, which is debatable (but see CP 4.240, 1902; and see also MS 950, where Peirce appears to associate objective logic with mathematics).

¹⁵ It is unclear to what manuscript Peirce might be referring, or if the chapter actually ever existed in any form. The table of contents (MS 399), which has been published in Vol. 8 of the *Collected Papers*, largely follows the plan laid out in the letter to Russell, but it does not mention a chapter on grammar and rhetoric.

¹⁶ For this error, see e.g. Bergman 2009: 174.

¹⁷ In the 1898 lectures on *Reasoning and the Logic of Things*, Peirce explains the logical significance of this notion of ‘system’ by specifying that “in place of the *class*, – which is composed of a number of individual objects or facts brought together in ordinary logic by means of their relation of similarity, the logic of relatives considers the *system*, which is composed of objects brought together by any kind of relations whatsoever” (RLT 146; cf. CP 4.5).

This, then, is the answer I am proposing: it is the objective-logical influence on speculative rhetoric – or, more potently, the envisaged reformation of philosophical rhetoric *as* objective logic – that best explains Peirce’s claim that the third branch would be the highest of the divisions of logic. This does not mean that other elements, such as the new scientific functions assigned to rhetoric, could not also have been factors influencing his judgement; but a closer look at his references to the development of scientific representation show that they are largely in harmony with – or specifications of – the tenet that speculative rhetoric would be a study of the evolution of thought and signs.

Admittedly, Peirce never puts matters in exactly these terms, at least not to my knowledge. But the timing is just right; it is almost immediately after the linking of rhetoric with objective logic that the third branch is characterized as the uppermost department of logical inquiry. The subtle changes in Peirce’s characterizations of rhetoric, with its growing emphasis on conditions of transmission and rational development, are arguably upshots of the objective-logical stimulus. Of course, this does not mean that the union of speculative rhetoric and objective logic necessarily lives up to this promise. Perhaps the strongest counterargument to my explanation of the elevation of rhetoric – and, more generally, to the notion that Peirce would have meant anything serious by his talk about the “highest branch” – is that he does not really endeavour to expand rhetoric into a “colossal doctrine”. If the change truly is as consequential as I have suggested, should there not be at least some traces of attempts to reach for the anticipated “important philosophical conclusions”?

I would argue that there are, but they are not necessarily found under the banner of rhetoric. The place to look is the “logic of events” that Peirce proposes to work out as the central part of a comprehensive objective logic in 1897–1898. In the main part of what has been preserved of this undertaking – the lectures on *Reasoning and the Logic of Things* – this is largely implicit, if not buried. In fact, the very name – a “logic of things” in place of a “logic of events” – suggests the curbing of aspirations in the delivered series. Responding to William James’s suggestion that the topic be cosmogony, Peirce’s original plan had been to talk on “tychism & synechism, but regarded from the point of view of Objective Logic” (letter to James, Dec 13, 1897). However, discouraged by James, who recoiled at the mathematico-logical character of some of the proposed talks, Peirce settled for a less ambitious arrangement. In fact, one needs to look quite hard to find references to objective logic and rhetoric in the 1898 lectures. Without being identified by name, speculative rhetoric is defined once – as a branch of logic that studies the conditions of signs “transferring their meaning to other signs” (RLT 146) – but about objective logic we actually only learn that all of the original eight lectures would have been concerned with that branch of philosophy (RLT 108). Still, reading between the lines, it is not too difficult to detect objective-logical concerns and perspectives permeating certain discussions dealing with the logic of continuity and the logic of events.

Of the more systematic first version of these lectures, only outlines, abstracts, and sketches remain. A full reconstruction would be challenging indeed, and is beyond the scope and needs of this essay. Most of the extant materials are parts of what would have been a final lecture on “creation”, or the very first stages of evolution; and much of what has survived could be described as sporadic flashes of light “relieved against Cimmerian darkness” [to paraphrase James’s (1907: 5) characterization of Peirce’s 1903 Lowell lectures]. No doubt, a complete account of Peirce’s objective logic of events would need to include an examination of his theory of continuity, and of a host of other complex issues as well. Still, a couple of detached remarks on the character of the objective logic of 1897–1898 may be ventured here for the sake of illuminating certain implications and complications of the proposed hypothesis.

Perhaps most significantly, the notes for the abandoned lectures provide some information about how Peirce thought that his objective logic differed from Hegel’s better-known doctrine. Peirce summarizes the latter as the thesis that “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” (CP 6.218, 1897–1898). If one compares this to the conception of anancastic evolution mentioned above, it looks like Hegelian evolution collapses the distinction between genuine and degenerate anancasm into one, in effect rendering the development of the world as a comprehensive process of necessitated rationalization. What Peirce really objects to in this notion is not the idea of all-inclusive rational progress, but the rationalistic determinism inherent in an absolutistic view of the objective process.

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 logic may be that of the inductive or hypothetical inference. (CP 6.218, 1897–1898)

In the place of necessitarianism, whether mechanical or Hegelian, Peirce offers his own all-inclusive vision of development. As most of the surviving bits and pieces treat logical creation, his story begins in a time before time, setting out from an initial condition of “nothing, pure zero”, which is not the “nothing of negation” but a “germinal nothing” in which the whole universe is “involved or foreshadowed” (CP 6.217, 1897–1898). It is a state of infinite possibility or freedom; yet, somehow underpinning it all is a key synechistic principle, according to which the putative starting point of “the bare Nothing of Possibility” would logically lead to continuity (NEM 4: 127, 1897–1898). Prompted by a veritable “big bang” of hypothetical inference –

a leap from the zero of possibility to the unit of some quality (CP 6.220, 1897–1898) – a logically subsequent, but fully arbitrary selection among qualitative possibilities occurs (cf. NEM 4: 135, 1897–8; RLT 260, 1898). By a movement that Peirce clearly finds difficult to explicate in words,¹⁸ the dualistic accidents of reaction are united in a continuum and are thereby generalized (NEM 4: 137, 1897–1898). Here, we would seem to have a basic categorial progression of one-quality, two-reaction, three-generality. Yet, Peirce claims that his attempts to develop something like a Hegelian encyclopaedia by following the given numerical order have been failures, and he asserts that in the “true logic of events”, “the second does not spring out from the first directly; but firstness looked at from a second point of view gives birth to a thirdness and the secondness comes out of the thirdness” (MS 943: 1, 1897–1898).

Peirce’s evolutionism is truly exhaustive; he insists that development affects even the world of real possibility, of which our particular universe of existence is only one prospective determination. Time and logic itself purportedly arise from the evolution of the “Platonic world” (RLT 260, 1898).¹⁹ The introduction of existence, time, and logic takes us from the strictly logical part of the Hegelian *Enzyklopädie* to a *Naturphilosophie* (NEM 4: 138, 1897–1898). Behind it all lies a broadly teleological worldview, perhaps somewhat obscured by Peirce’s emphasis on creation. In what one might call the natural phase, the logical movement of thought basically manifests itself as a drive toward habitualization, with the tendency to take habits identified as the first and most pervasive law of nature (NEM 4: 140, 1897–1898). Still, highlighting another point where his evolutionism purportedly diverges from absolute idealism,

¹⁸ In several of his descriptions of the most abstract logic of events, Peirce breaks off his account at this point. Having done just that in the 1898 lecture on the logic of continuity, he confesses that what he has just said about the beginnings of creation seems “mildly confused enough” (RLT 261), and then attempts to explicate his contention with the help of a simple diagrammatic illustration of habits (structured diagrams) forming from chance occurrences (lines) on a space of possibilities (a blackboard). The procedure bears some resemblance to the previously described rhetorical example of the mathematician adding lines to an apparently disorderly graph in order to reveal its inherent potential; but here Peirce portrays this method as a universal process of development or determination.

¹⁹ This is one of the most vexing points of Peirce’s comprehensive objective logic: how can one describe a non-temporal logic “before” logic from the restricted perspective of one’s existence? His indirect reply invokes the natural light thesis, bolstered with a nod to the economy of research. Arguing first that there is simply no point in assuming that the objective logic of the world would be radically different from our subjective logic, Peirce advocates the hypothesis that “the logic of the universe is one to which our own aspires, rather than attains” (RLT 257–258, 1898). Still, he sometimes portrays this teleological end in broadly religious terms, with the universe virtually destined “to become a more and more perfect mirror of that system of ideas which would result from the indefinitely continued action of objective logic” (NEM 4: xxiv).

Peirce emphasises that habits, as such, do not produce development; for that, some kind of brute force – reaction, experience, catastrophe – is needed. It opens up a space in which a habit of changing habits can be formed (NEM 4: 142, 1897–1898). From this perspective, the objective logic of nature – now explicitly branded as an idealistic position – is then defined as “the doctrine that nothing exists but phenomena and what phenomena bring along with them and force upon us, that is Experience, including the reactions that experience feels and all that logically follows from experience by Deduction, Induction, and Hypothesis” (NEM 4: 144, 1897–1898). It is not limited to human thought; but the evolution of the universe itself is presumed to advance in accordance with a logic so closely analogous to human reasoning that one can say that nature is making inferences or even “syllogizing” (RLT 161, 1898).

These are undeniably heady claims. Here, objective logic fuses into objective idealism, tying together some wayward strands from Peirce’s cosmogony of the early 1890s with his theory of categories. It could justly be described as “a colossal doctrine which may be expected to lead to most important philosophical conclusions”, thus adding support to the hypothesis that it is as objective logic that speculative rhetoric reaches the highest strata of the world of logic.

However, at the same time it must be conceded that this is not how Peirce presents matters in his objective logic of events of 1897–1898. In fact, this endeavour appears to be seeking its place in his conception of scientific inquiry; in addition to its presumed home in logic, it is sometimes associated with mathematics (MS 915) as well as with metaphysics (CP 6.214, 1897–1898). It is not clear whether the “birth” of time/existence splits objective logic into two parts: a purely logical (or perhaps mathematical) investigation of the quasi-inferential “movement” of the Platonic world and a natural-metaphysical investigation of the existential-temporal logic of events governing this world of existence. In many of Peirce’s reflections on creation, objective logic actually moves so close to metaphysics that the two are practically inseparable.

In this apparent encroachment of logic on the territory of metaphysics, one can perhaps detect traces of Hegel’s (2010[1813–1832]: 42) contention that objective logic takes the place “of the former *metaphysics* which was supposed to be the scientific edifice of the world as constructed by *thoughts* alone”. Admittedly, Peirce does not exactly advocate such a replacement, and he also criticizes Hegel’s scheme for its confinement to internal thought-determination. However, the latter’s conception of an objective logic that in effect supersedes the old first philosophy and precedes subjective logic (i.e., logic in a more traditional sense) may well be lurking in the background of the promotion of the third branch, like an unacknowledged “Hegelian bacillus” of sorts. These are mere conjectures, of course; but the fact remains that the push and pull of Peirce’s objective logic of events is toward metaphysical matters. Thus, in spite of the professed fusion of rhetoric and objective logic, what Peirce actually writes on

the latter has generally – and understandably – been treated as metaphysics. Where all this finally leaves the highest branch of logic is a good question.²⁰

Lowered expectations and new purposes

The contention that the identification of speculative rhetoric with objective logic may explain Peirce's elevation of the third branch to unforeseen heights does not entail that the straightforward union of the two is tenable. In fact, the first signs of a breakup can be detected in 1898, that is, the very same year that Peirce presents a fragment of his grand vision in the *Reasoning and the Logic of Things* lectures. In a notebook entry dated September 29, he sketches a new conception of the trivium, in which speculative rhetoric is assigned the tasks of (1) methodology, (2) applications of logic to mathematics (etc.), and (3) objective logic. In spite of its terseness, this note is quite revealing, as this is probably the first time that Peirce plainly designates the development of methods as a specifically rhetorical task. Also, there is an emphasis on application that harks back to ideas suggested in "The logic of quantity" and the *Short Logic*. However, given present concerns, it is the positioning of objective logic as a part of rhetoric that is perhaps the most telling feature of this conception. No longer synonymous with rhetoric, objective logic is now a subdivision in a branch of logic on the verge of a makeover.

The coming transformation is actually heralded by a minor remark in the notebook entry, where Peirce expresses some dissatisfaction with the name 'speculative rhetoric'. The actual change takes place a couple of years later. In *The Minute Logic*, Peirce introduces 'methodeutic' as a near-synonym of 'speculative rhetoric' (CP 2.93, 1902); but in his slightly later application to the Carnegie Institution, only the former is

²⁰ An anonymous reviewer of this essay has suggested that there may be a significant connection between the Hegelian notion of logic as a re-tracing of dialectical movements among ideas and a Peircean conception of rhetoric as an investigation of how critically justified or truth-preserving scientific propositions and arguments can be combined in an objective system. This proposal, which might keep rhetoric *cum* objective logic within the disciplinary parameters of the trivium, deserves to be explored in more detail. It seems fairly obvious to me that the Peirce of the 1890s recognized at least a kinship between the dynamics of Hegel's logic and his own 1867 conception of rhetoric as a study of the "force of symbols", even if this influence must be qualified by Peirce's generally negative assessment of Hegelian dialectics. However, the question is whether Peirce's expansive objective logic can plausibly be contained within the slot between critic and metaphysics. As it is construed in terms of the logic of events, Peircean objective logic seems on the one hand to have very little, if any, grounding in the justifications provided by logical critic, while on the other spilling over into territories thought to belong to metaphysics.

employed. This entails more than a nominal variation of words. As the new name suggests, the third branch of logic is now increasingly focused on methods of inquiry. Although Peirce returns to ‘speculative rhetoric’ on a couple of occasions, it is evident that ‘methodeutic’ – understood as a study of “the methods that ought to be pursued in the investigation, in the exposition, and in the application of truth” (EP 2: 260, 1903) or simply as a branch that “should investigate the general principles upon which scientific studies should be carried on” (MS 1334: 28, 1905) – is the preferred appellation and point of view.

In the background, one can discern a new emphasis on the normativity of logic. Although anticipated by some earlier observations (e.g., MS 594, 1893²¹), it is only in the 1900s that Peirce begins to portray logic as a fully normative discipline. This also affects the third branch, something that is evident in the emphases on what *should* and *ought to* be done in the characterizations of methodeutic given above. Accompanying this, one finds an accent on ends and purposes – anticipated in the *Short Logic* – creeping into the more semiotic depictions of the third branch. Thus, *The Minute Logic* characterizes rhetoric as “the doctrine of the general conditions of the reference of Symbols and other Signs to the Interpretants which they aim to determine” (CP 2.93, 1902); while the Carnegie application defines methodeutic in terms of the conditions to which a sign must conform in order to be pertinent to “the purposed ultimate interpretant” (NEM 4: 62, 1902).

From a somewhat different perspective, the primary focus on method also seems to call for a general theory of purposive or normative action.

Nowadays methods alone can arrest attention strongly; and these are coming in such flocks that the next step will surely be to find a *method of discovering methods*. This can only come from a theory of the method of discovery. In order to cover every possibility, this should be founded on a general doctrine of methods of attaining purposes, in general; and this, in turn, should spring from a still more general doctrine of the nature of teleological action, in general. (CP 2.108, 1902)

Given that the logic of events has been characterized as a theory of evolution or development of mind with distinct teleological undertones, this generalization of the foci of methodeutic might be construed as a pointer toward objective logic in the sense of the 1890s; but such a correlation is not established. So what, then, becomes of objective logic after this proverbial purposive turn? In both *The Minute Logic* and the Carnegie application, there are in fact sections dealing with objective logic, but it is treated somewhat differently than before. In *The Minute Logic*, Peirce seems to suggest

²¹ ‘Logic’ (pub. 24.08.15–13:22). Quote in Bergman, Mats; Paavola, Sami (eds.), *The Commens Dictionary: Peirce’s Terms in His Own Words. New Edition*. Retrieved from <http://www.commens.org/dictionary/entry/quote-search-method-fragments-r>.

that objective logic is something to be pursued after speculative rhetoric – the last part of *normative* semiotic – has been brought to a close (CP 2.111, 1902; cf. Fisch 1986: 273; Kent 1977). Objective logic is now characterized as a subsequent endeavour focused on the question of the “life of signs”. However, it is unclear whether it is intended to respond to the need for a general theory of teleological action, as Peirce at least seems to assert that such a doctrine would precede rhetoric in the order of inquiry. It may actually refer to normative ethics.

On the other hand, one can discern an increased attention to goal-directedness in Peirce’s portrayals of the procedure of objective logic. By a material application of the universal categories as well as direct use of the pragmatic maxim, it is expected to elucidate the “three modes or factors of being” imperfectly manifested in metaphysical conceptions, and to clarify their role as “elements of coöperation toward the *summum bonum*” (CP 2.118, 1902). On this basis, a *Weltanschauung* that would cast new light not only on metaphysics, but also on the significance of logic and ethics, is supposed to be built. Thus, objective logic appears to approach something like a general ontology, but with implications extending above rhetoric/methodeistic; Peirce leaves the question hanging. The objective-logical pursuit is perhaps not precisely normative; but neither is it definitely classified as metaphysics.

In the Carnegie application, Peirce proposes to devote a whole memoir to the topic of objective logic, and places the tome (never produced, of course) between methodeistic and metaphysics, but in a way that suggests that it is still closer to the former than to the latter (NEM 4: 31, 1902). Here, as in *The Minute Logic*, some new emphases and aims emerge. More clearly than before, objective logic is now supposed to be concerned with the investigation of the manifestations of the “modes of being” – that is, the particular or material categories – a more modest undertaking than the explication of a comprehensive logic of development. However, the main task of objective logic is purportedly to show “that ideas really influence the physical world, and in doing so carry their logic with them” (NEM 4: 31, 1902). This exposition of “the logic of ideas in their physical agency” encompasses the examination of two modes of indispensable modes of causation – efficient and final – as well as the refutation of absolute idealism, psycho-physical parallelism, and materialism as theories of mind. Teleological action is clearly a primary concern of objective logic, but perhaps more in a descriptive than in a prescriptive sense.

In one draft for the Carnegie application, Peirce expresses some doubts that ‘logic’ is really the appropriate heading for this endeavour (MS L75d: 387). This may have been caused by the realization that his conception of objective logic could hardly be characterized as a strictly normative science – namely, as a department of inquiry that “studies what ought to be” (CP 1.281, 1902). While objective logic seems to be involved with the other aspect of normative investigation – that is, “the analysis of the

conditions of attainment of something of which purpose is an essential ingredient” (CP 1.575, 1902) – it nonetheless lacks that key element of a fundamental dualistic distinction that distinguishes a prescriptive discipline from others (cf. EP 2: 259, 1903). As objective logic passes “beyond pure logic” (MS L75d: 382, 1902), its disciplinary status becomes highly uncertain. On the one hand, it seems to hover in a scientific no man’s land between logic and metaphysics. On the other, it is unclear whether objective logic really can be described as a discipline or sub-discipline anymore. Rather, it may be taken to denote a field of inquiry – “the logical processes of ideas acting upon the external world” (MS L75d: 387, 1902) – or even a worldview. In this last respect, it may have a substantial connection to the suggested “general doctrine of the nature of teleological action” after all.

If this is indeed the case, then it is not all that surprising that objective logic basically disappears from Peirce’s increasingly compartmentalized models of scientific inquiry after 1902. Being no longer simply identical with rhetoric/methodeic, nor a subdivision or an offshoot thereof, objective logic is quietly dismissed from the organized sciences. However, that does not mean that the pursuits that Peirce has been articulating under this banner also fade into oblivion. In some respects, the opposite is true, with interests and perspectives of the virtually abandoned discipline resurfacing in different guises in phaneroscopy, in esthetics, in ethics, in metaphysics, and perhaps even in formal logic.

Peirce’s last forays into rhetoric provide a pertinent illustration of this claim. In “Ideas, stray or stolen, about scientific writing” (1904), he defines speculative rhetoric as “the science of the essential conditions under which a sign may determine an interpretant sign of itself and of whatever it signifies, or may, as a sign, bring about a physical result” (EP 2: 326). This emphasis on general ideas producing “stupendous physical effects”, as well as the new rhetorical thesis that “ideas cannot be communicated at all except through their physical effects” (EP 2: 326), are arguably outcomes of the later objective-logical considerations. More boldly, I would argue that the gist of the *Weltanschauung* of objective logic lives on in the celebrated definition of semiosis as a “tri-relative influence” that is explicitly distinguished from mechanical action (EP 2: 411, 1907). But that is a topic for another speculation.

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Высшая ветвь логики?

Об одном забытом вопросе спекулятивной риторики

Ч. С. Пирс охарактеризовал философскую риторику как “высшую и наивнейшую часть логики”. В статье дается новая трактовка причин, вызвавших такое неожиданное возвышение третьего подраздела семиотики (которая понимается как логика в широком смысле слова), и рассматриваются некоторые импликации этой новой интерпретации. Предлагаются два вероятных объяснения, которые указывают на столь же удивительное связывание Пирсом риторики и объективной логики в 1890-х годах. В последней части статьи поднимается вопрос о том, каким образом переход Пирса из риторики в методологию мог повлиять на его концепцию логики.

Loogika kõrgeim haru? Spekulatiivse retoorika ühest unarussejätud küsimusest

C. S. Peirce iseloomustas filosoofilist retoorikat kui “loogika kõrgeimat ja elusaimat haru”. Artiklis visandatakse uus tõlgendus sellele, mis põhjustas semiootika (mida mõistetakse loogikana laias tähenduses) kolmanda alajaotuse sellise ootamatu esiletõstmise, ning vaadeldakse väljapakutava tõlgenduse mõningaid järelusi. Tuvastatakse kaks usutavat seletust, mis toovad nähtavale Peirce’i samavõrra üllatusliku seoseloomise retoorika ja objektiivse loogika vahel 1890. aastatel. Viimases osas puudutatakse põgusalt küsimust, kuidas Peirce’i hilisem nihkumine retoorikast metodeutikasse võis mõjutada tema loogikakontseptsiooni.