

## *Logic [in the narrow sense]*

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1865 | Harvard Lectures on the Logic of Science. Lecture VIII: Forms of Induction and Hypothesis | W 1:258

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The science of the general laws of relations of symbols to logoi is general grammar. The science of the general laws of their relations to objects is logic. And the science of the general laws of their relations to other systems of symbols is general rhetoric.

1865 | Harvard Lectures on the Logic of Science. Lecture X: Grounds of Induction | W 1:274

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Symbols, as such, are subject to three laws one of which is the *conditio sine qua non* of its standing for anything, the second of its translating anything, and the third of its realizing anything. The first law is Logic, the second Universal Rhetoric, the third Universal Grammar.

1865 | Teleological Logic | W 1:304

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The science of the general conditions to which every symbol is subjected in so far as it is related  
 | a logos is *General Grammar*  
 to | a language is *General Rhetoric*  
 | an Object is *General Logic*.

1867 | On a New List of Categories | W 2:57; CP 1.559

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We come, therefore, to this, that logic treats of the reference of symbols in general to their objects. In this view it is one of a trivium of conceivable sciences. The first would treat of the formal conditions of symbols having meaning, that is of the reference of symbols in general to their grounds or imputed characters, and this might be called formal grammar; the second, logic, would treat of the formal conditions of the truth of symbols; and the third would treat of 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, and this might be called formal rhetoric.

1895 | Short Logic: Chapter I. Of Reasoning in General | EP 2:19

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The sciences of speculative grammar, logic, and speculative rhetoric may be called the *philosophical trivium*.

“Exact” logic, in its widest sense, will (as I apprehend) consist of three parts. For it will be necessary, first of all, to study those properties of beliefs which belong to them as beliefs, irrespective of their stability. This will amount to what Duns Scotus called *speculative grammar*. For it must analyse an assertion into its essential elements, independently of the structure of the language in which it may happen to be expressed. It will also divide assertions into categories according to their essential differences. The second part will consider to what conditions an assertion must conform in order that it may correspond to the “reality,” that is, in order that the belief it expresses may be stable. This is what is more particularly understood by the word *logic*. It must consider, first, *necessary*, and second, *probable* reasoning. Thirdly, the general doctrine must embrace the study of those general conditions under which a problem presents itself for solution and those under which one question leads on to another. As this completes a triad of studies, or trivium, we might, not inappropriately, term the last study *Speculative rhetoric*. This division was proposed in 1867 by me, but I have often designated this third part as *objective logic*.

But besides being logical in the sense of demanding a logical analysis, our inquiry also relates to two as a conception of logic. The term “logic” is unscientifically by me employed in two distinct senses. In its narrower sense, it is the science of the necessary conditions of the attainment of truth. In its broader sense, it is the science of the necessary laws of thought, or, still better (thought always taking place by means of signs), it is general semeiotic, treating not merely of truth, but also of the general conditions of signs being signs (which Duns Scotus called *grammatica speculativa*), also of the laws of the evolution of thought, which since it coincides with 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, ought, for the sake of taking advantage of an old association of terms, be called *rhetorica speculativa*, but which I content myself with inaccurately calling *objective logic*, because that conveys the correct idea that it is like Hegel’s logic.

In consequence of every representamen being thus connected with three things, the ground, the object, and the interpretant, the science of semiotic has three branches. The first is called by Duns Scotus *grammatica speculativa*. We may term it *pure grammar*. It has for its task to ascertain what must be true of the representamen used by every scientific intelligence in order that they may embody any *meaning*. The second is logic proper. It is the science of what is quasi-necessarily true of the representamina of any scientific intelligence in order that they may hold good of any *object*, that is, may be true. Or say, logic proper is the formal science of the conditions of the truth of representations. The third, in imitation of Kant’s fashion of preserving old associations of words in finding nomenclature for new conceptions, I call *pure rhetoric*. Its task is to ascertain the laws by which in every scientific intelligence one sign gives birth to another, and especially one thought brings forth another.

1898 | Cambridge Lectures on Reasoning and the Logic of Things: Detached Ideas continued and the Dispute between Nominalists and Realists | RTL 146; NEM 4:331

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There are three ways in which signs can be studied, first as to the general conditions of their having any meaning, which is the *Grammatica Speculativa* of Duns Scotus, second as to the conditions of their truth, which is logic, and thirdly, as to the conditions of their transferring their meaning to other signs.

1901-1902 [c.] | Definitions for Baldwin's Dictionary [R] | MS [R] 1147

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...in a narrower sense, logic is the science of the reference of symbols to their objects. For logic in this narrower sense, all symbols which have precisely the same possible objects [...] are identical, – a limitation which must not be overlooked. Hence, according to Boole, and those who follow him, every symbol has one or other or two *values*, according as it does or does not [...] represent the object intended.

1902 | Minute Logic: Chapter I. Intended Characters of this Treatise | CP 2.93

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Logic is the science of the general necessary laws of Signs and especially of Symbols. As such, it has three departments. Obsistent logic, logic in the narrow sense, or *Critical Logic*, is the theory of the general conditions of the reference of Symbols and other Signs to their professed Objects, that is, it is the theory of the conditions of truth. Originalian logic, or *Speculative Grammar*, is the doctrine of the general conditions of symbols and other signs having the significant character. It is this department of general logic with which we are, at this moment, occupying ourselves. Transuational logic, which I term *Speculative Rhetoric*, is substantially what goes by the name of methodology, or better, of *methodeutic*. It is the doctrine of the general conditions of the reference of Symbols and other Signs to the Interpretants which they aim to determine...

1906 | Phaneroscopy | CP 4.9

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... I extend logic to embrace all the necessary principles of semeiotic, and I recognize a logic of icons, and a logic of indices, as well as a logic of symbols; and in this last I recognize three divisions: *Stechiotic* (or stoicheiology), which I formerly called Speculative Grammar; *Critic*, which I formerly called Logic; and *Methodeutic*, which I formerly called Speculative Rhetoric.

nd | Logic: Fragments [R] | MS [R] S64

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Logic, in general, seems to be the science of what is universally true respecting scientific representations. In a narrow sense, logic is the science of the general conditions of the truth of scientific representations.