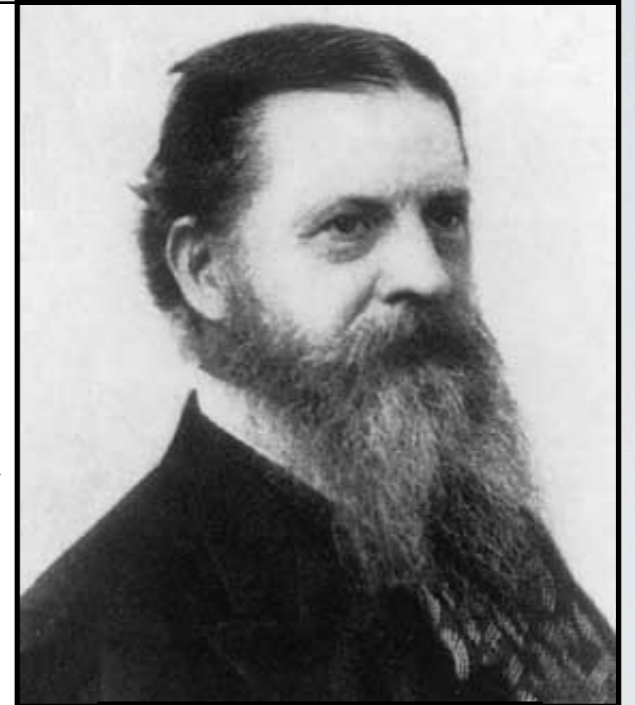


# Peirce: Diagrammatic Reasoning

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„A diagram is an icon or schematic image embodying the meaning of a general predicate; and from the observation of this icon we are supposed to construct a new general predicate“

(New Elements, EP 2: 303, 1904)



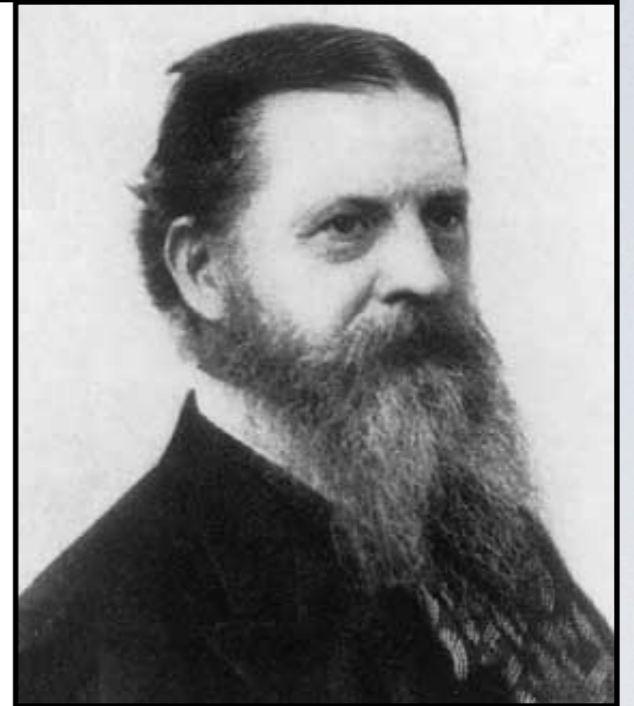
Charles S. Peirce

# Peirce: Diagrammatic Reasoning

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„By diagrammatic reasoning, I mean reasoning which constructs a diagram according to a percept expressed in general terms, performs experiments upon this diagram, notes their results, assures itself that similar experiments performed upon any diagram constructed according to the same percept would have the same results, and expresses this in general terms.“

(Logic, Regarded as Semeiotic, MS L75 (ed. Joseph Ransdell, 1902)



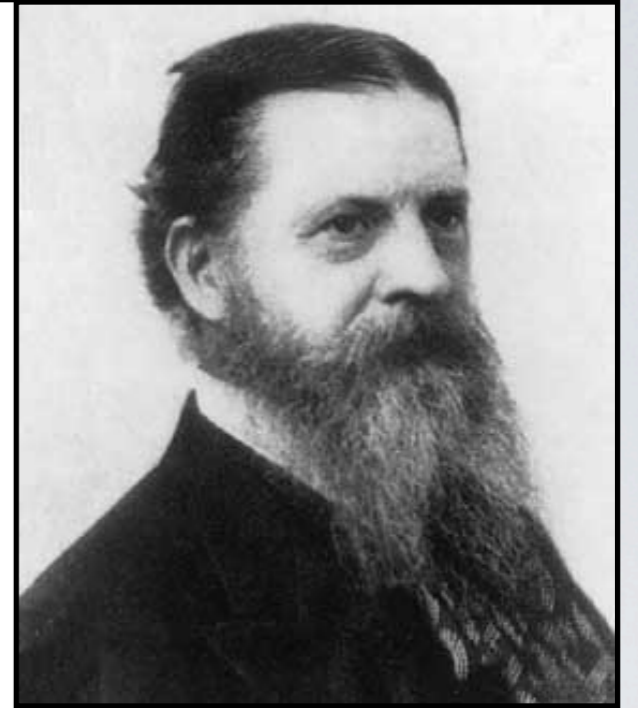
Charles S. Peirce

# Peirce: Diagrammatic Reasoning

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„All necessary reasoning without exception is diagrammatic. That is, we construct an icon of our hypothetical state of things and proceed to observe it. This observation leads us to suspect that something is true, which we may or may not be able to formulate with precision and we proceed to inquire whether it is true or not. For this purpose it is necessary to form a plan of investigation and this is the most difficult part of the whole operation (...).“

(The Nature of Meaning, EP 2: 212-213,  
1903).



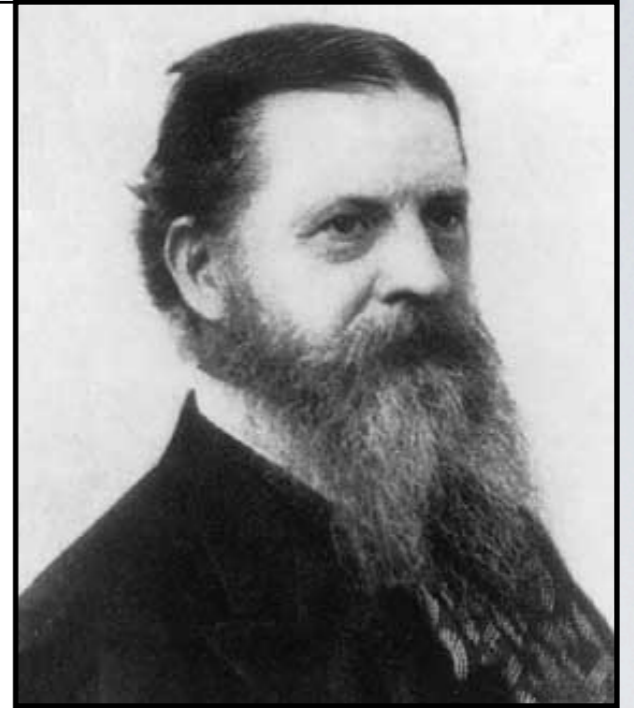
Charles S. Peirce

# Peirce: Diagrammatic Reasoning

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„(...) But the greatest point of art consists in the introduction of suitable abstractions. By this I mean such a transformation of our diagrams that characters of one diagram will appear in another as things. A familiar example is where in analysis we treat operations as themselves the subject of operations.“

(The Nature of Meaning, EP 2: 212-213, 1903).



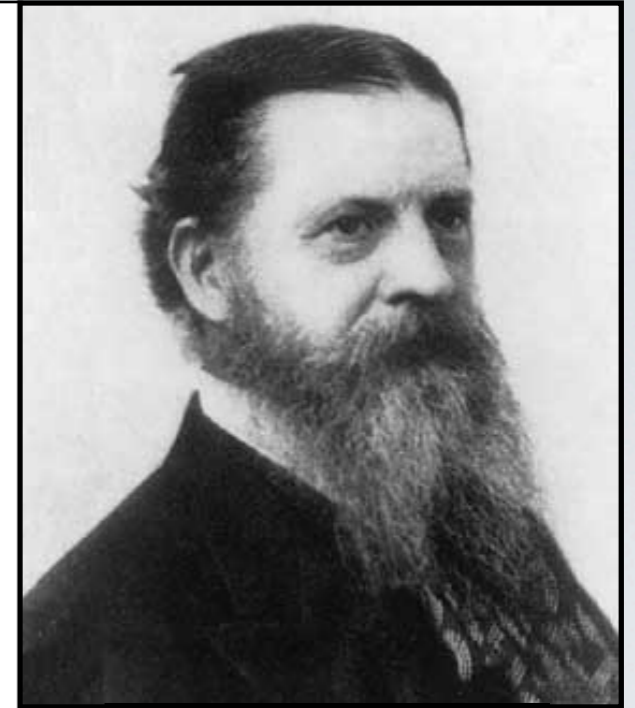
Charles S. Peirce

# Peirce: Diagrammatic Reasoning

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„A diagram is an icon or schematic image embodying the meaning of a general predicate; and from the observation of this icon we are supposed to construct a new general predicate. (...) A theorem, as I shall use the word, is an inference obtained by constructing a diagram according to a general percept, and after modifying it as ingenuity may dictate, observing in it certain relations, and showing that they must subsist in every case, retranslating the proposition into general terms.“

(New Elements, EP 2: 303, 1904)



Charles S. Peirce