To Charles Sanders Peirce, September 21, 1905[129]

103 Irving St.
Sept. 21, 1905

Dear Mr. Peirce:—

In my letter mailed this morning[130] I believe that, in one passage, in rendering my own definition of non-equivalence, I made a slip in expression, through haste in writing. To assert that, in my system Σ, as my Principle IV requires it to be constituted, there exists a pair (x, y), such that $x \neq y$, is to assert, as my text states, that there exists at least one O-collection of elements whereof one of these elements (say x) is a member, while the other element (say y)

[129] ALS. Peirce Papers. HL. This and the succeeding two letters consist of Royce's part in a flurry of correspondence which extended through August and September of 1905. The corpus of this exchange was Royce's "The Relation of the Principles of Logic to the Foundations of Geometry." Here Royce advanced his System Σ, considered by C. I. Lewis, J. H. Cotton, and others to be among his most significant contributions to logic. Though the three letters by Royce included in this edition are all that survives of his part in the correspondence, Peirce's letters to Royce for this period, drafts of letters, fragments, notes, etc. exist in profusion, both in the Royce Papers and in the Peirce Papers. On August 19, Peirce opened the exchange (Royce Papers): "I received today your highly important Memoir, and although I have not yet had time to read far into Chapter II, I will venture on a few remarks which may for aught I know be contained in the Memoir itself." He then proceeded to introduce criticisms of Royce's §§19–24. Peirce advanced other criticisms on later parts of Royce's paper in drafts of letters, dated August 21 (Peirce Papers), and in a postcard of August 22 (Royce Papers). Peirce's annotated copy of Royce's paper is in the Robbins Library, Harvard University.

[130] This letter, probably a long one, is not contained in either the Royce Papers or the Peirce Papers. In a second postcard, postmarked September 21, 1905 (Royce Papers), Peirce writes: "Yours rec'd. I shall not read it at once because I should be sure to lose time owing to being too interested in it. I see I blundered as to finite systems. My study of your paper had to be done in walking, and so I was led to assume that (ζ) in your principle VI might be thought of as a collection of 3 elements. I have put my interpretation of the O relation into strictly demonstrative form. Your notion that a disquiparance can be composed exclusively from equiparences & for which you argue by a weaker variation of Kempe's argument, *Math. Form.* §69 is *absurd* & the fallacy is a strange one to come from *you,* trained as you are. Also you say nothing that weakens the distinction between dyadic & triadic relations. Look at my original definition of a disquiparence & my noticing that a cousin of a friend is such (because *cousin* & *friend* are composed of *disquiparances*). Also consider my existential graphs."

cannot *be substituted for x* (if x was the one in question) in that collection *without rendering the collection an E-collection.*

I believe that I hastily wrote something like this: "That there exists an O-collection into which one element enters while the other does not." *If* I thus hastily expressed myself, I beg you to be sure that I recognize the difference between the two modes of expression.

Yours Truly
Josiah Royce.