Translation into English: Chapter 2 - Catalogue of Errors for Both Theories of Relativity

from the German documentation of G.O. Mueller

"*On the Absolute Magnitude of the Special Theory of Relativity - A Documentary Thought Experiment on 95 Years of Criticism (1908-2003) with Proof of 3789 Critical Works*" - Text Version 2.1 - June 2004
http://www.ekkehard-friebe.de/kap2.pdf

Translator: Rothwell Bronrowan

D: Time / Error No. 3

Albert Einstein finds himself unable to clearly demarcate between the two types of simultaneity proposed (one absolute and one relative)

The recognized simultaneity of two occurrences at the same place (AE1905, p. 893), e.g. the settings of the hands on clocks standing next to each other, and the alleged non-simultaneity for two occurrences on relatively moving bodies at a distance from each other (p. 897) raise questions as to their demarcation.

1st question: How far from each other may the two clocks standing next to each other be; a metre, or five metres, or ten metres? Is one permitted to read the position of the hands of a clock even with binoculars? Then one could bridge a distance of several hundred metres.

2nd question: Fundamentally speaking, proximity and motion are not mutually exclusive. If the two relatively moving systems approach each other and then pass each other very closely (with a separation, for example, of 1 metre) so that the simultaneous reading of one clock in one system and one clock in the other system is possible, can this establish simultaneity in various moving systems?

Albert Einstein deliberately fails to address these questions, though in a footnote on p. 893 he admits: "The imprecision as to the concept of simultaneity of two occurrences at (roughly) the same place and how it can be bridged by an abstraction will not be discussed here."

In view of the serious consequences seen by Albert Einstein as a result of his distinction, this imprecision is unforgivable. After all, if two systems passing each other in close proximity synchronize their clocks at this moment, then something happens which Albert Einstein explicitly contests; unequivocal simultaneity between systems in relative motion.

The lack of care shown by Albert Einstein as regards the definition at close proximity, the imprecision of which he himself concedes, ruins one of his nicest inventions, the "relativity" of simultaneity. His waiving of a discussion on demarcation was possibly due to the seeming futility of such an attempt. After all, he would not only have to have identified the demarcation between proximity and distance, but would also have to have justified this and to have explained what it was that, on crossing this boundary, physically (!) changed.

H. Bergson (1968, p. 55) clearly recognizes this hole in the theory and makes fun of it in that, instead of human observers, he sets microbes on the clocks standing next to each other, they regarding even the separation of one metre as a large distance so that they - well positivistic - refuse to establish absolute simultaneity. In the discussion with Albert Einstein in 1922, Bergson put the following nice words in the mouths of the microbes: "Ah non! nous n'admettons pas cela. Nous sommes plus einsteiniens que vous, Monsieur Einstein" (p. 106).

Bergson: [Contribution to discussion, Sitzung der Société Française de Philosophie, 6th April 1922] : [Topic of the meeting: La théorie de la relativité]. In: Société Française de Philosophie. Bulletin. 22. 1922, No. 3, pages 102-107. Reprinted in: Bergson: Écrits et paroles. 3. 1959, pages 497-503. Engl. translation in: Bergson and the evolution of physics. Ed.: P. A. Y. Gunter. Knoxville 1969, pages 128-133. - Bergson, Henri: Durée et simultanéité [7. éd.] : à propos de la théorie d'Einstein. 7. éd. Paris: Pr. Univ. de France, 1968. 216 pages - 1s éd. 1922.