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SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Physical Science International Journal
Manuscript Number:	**Ms_PSIJ_26788**
Title of the Manuscript:	**Some of the complexities in the special theory of relativity: new paradoxes**
Type of Article:	**Original Research Paper**

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	**Authors' response to final evaluator's comments**
- The authors display rather typical misconceptions in this paper. Some of these are discussed in the following. - In section II, the authors attempt to give the impression they understand the asymmetry of GRT but discuss "lines of simultaneity or the GRT" which at best suggests the authors think there are global reference frames in GRT sharing the notion of simultaneity which is not the case. - Further down the authors display the misconception that the "acceleration of the first brother cannot influence on the senescence of the second brother". Nowhere in relativity theory is such a claim made. In fact, nothing strange about time is noticed regardless of what frame you are in, whether accelerated or not. 80 years lived in an inertial reference frame is equivalent to 80 years lived in an accelerated frame and the same is true of your experience of the world if your whole life is characterized by you falling into a black hole. These ideas constitute the basics of relativity theory.	1) We pay attention of the respected reviewer that our work has no relation to the general relativity theory at all (please, see the title of the manuscript). 2) The GRT is only slightly mentioned by us (for reference), and this is only because the reviewer did so. 3) We pay attention of the respected reviewer that the conjunction "**or**" is used to link two different alternatives in the mentioned phrase "lines of simultaneity **or** the GRT". 4) We never discussed any "global reference frames in GRT sharing the notion of simultaneity" (the respected reviewer) for the twin paradox in the manuscript. 5) We discuss the special relativity theory only. More precisely, in the item with the twin paradox, we consider the one concrete "explanation" in the frame of the SRT that was given by Einstein, Laue and other researchers. Unfortunately, the relativists never argue with each other, therefore it is necessary to discuss such alternatives too. 6) If the respected reviewer supposes that the GRT must be used, we agree with the opinion of the respected reviewer that the special relativity theory cannot explain the twin paradox. 7) The phrase about "the change of the lines of simultaneity" is not ours. It is presented in many relativistic articles, books and textbooks (including those cited by us). 8) Of course, "Nowhere in relativity theory is such a claim made" (the respected reviewer), since the relativists do not highlight the problem, but hide it under the carpet. Let's analyze in detail the items of our statement from the manuscript. a) The initial position. "Before acceleration, in opinion of each brother, the other one should appear younger". This statement is included in many relativistic articles, books and textbooks (including those cited by us). If the respected reviewer knows at least one printed article, where it is stated differently, please give a reference. b) The final position. As it is known from all relativistic textbooks, the brother-astronaut was accelerated and exactly he was found to be younger than the brother-homebody at the meeting. If the respected reviewer knows at least one printed article, where it is stated differently, please give a reference. c) Flight without acceleration. Excluding the acceleration time, the situation is completely symmetrical with the twins during the flight in the SRT. This position accepted by all relativistic articles, books and textbooks. If the respected reviewer knows at least one printed article, where it is stated differently, please give a reference. Therefore, in opinion of each brother, an increase of the age of the other one should

	occur less than his own age change for such a flight. d) The final outcome of the experiment. Since the rejuvenation is impossible (including the proper time), so the twin-astronaut cannot became younger, but the twin-homebody became much older. e) We are seeking for the physical cause. Since the only influence was an acceleration, then, **from the viewpoint of the twin-astronaut**, he "is accelerated, but the other brother grows older" (see points a) and c)). If the respected reviewer can make some other conclusion from all of the above points, please announce your discovery (**from the viewpoint of the astronaut in the special relativity theory**), or please give a reference. What specifically did not like the respected reviewer in our phrase "acceleration of the first brother **cannot** influence on the senescence of the second brother"? May be, the respected reviewer can convincingly disprove our phrase, or can prove the opposite statement: "acceleration of the first brother **can** influence on the senescence of the second brother". Is there a link to a published work? 9) The reviewer's humor with "the basics of relativity theory" we appreciate very high. It is well known to every physicist that the proper time is independent on body movement or on any circumstances (this statement is studied in school, university, postgraduate studies and repeatedly checked in exams, including Ph.D.). We have never claimed the opposite statement in our manuscript. 10) We feel that there were some difficulties in understanding this article. Therefore, we made some corrections (all corrections are highlighted in yellow). 11) We are grateful to the Reviewer for useful discussion, which helped us to improve the manuscript.