Time Dilation in Relativity Theory

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The traditional concept of time was revised in Special Theory of Relativity (STR). The following thought experiment reveals the fallacy of the often-quoted arguments[1] in support of time dilation.

Figure 11.4 below shows a platform in uniform motion with two observers A and B on it, and another stationary observer C on the ground. The relativist's view is that ***"if the observer A lights a match stick creating a flash, the observer B sitting opposite to him will think that the flash has directly come to him along the route PQ, whereas, the observer C will see the path along PQ^1, since, during the time the flash has reached him, the platform has reached to a new location P^1 Q^1 R^1 S^1. The path of the flash does not look the same to the two observers B and C. Since the flash is moving with A, it seems to C taking a longer path; and if the speed of light is to remain the same, the longer path must seem to take longer time: time must pass faster for C".*** The misconception on the nature of light in the above statement is the presupposition that ***"the flash is moving with A". But is the flash really moving with the observer A?*** It has been shown (SVT) that speed of light is independent of the motion of the source. Hence, the uniform motion of A cannot be imparted to the flash of light that he creates by striking a match.

To further pinpoint the relativistic misconception on the motion of the flash along with A, let us suppose that A has with him an electron and a positron that can undergo at some instant desired by A, annihilation and produce a single shell of light. It can be seen that the point of annihilation say close to the platform corner P , created by A, will get fixed in fluid-space, while the observers A and B will move on the platform. Assuming that B can see the point of annihilation even prior to the instant when the single light shell consequent to the annihilation has reached him, he will see that the point of annihilation near P is shifting to his left due to his own motion on the platform to the right; and by the time B reaches Q^1 he will see that the light shell has taken the route PQ^1 to reach him. PQ^1 is the same length, which is seen by stationary observer C. Therefore; the assumption of the relativist that the flash of light is *moving with* A is erroneous. Further, if the stationary observer C stands at D, where PQ^1 = PD, the light shell will reach both B and C at the same instant. **The new concepts of "time dilation" and "simultaneity" of STR are clearly superfluous in STR.**

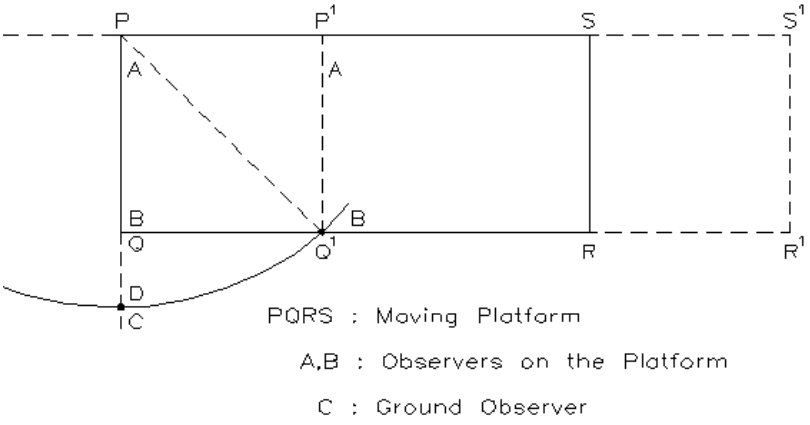

Fig. 11.4

[1] The Clock Paradox, Dr. J. Bronowski, Scientific American, February 1963, Vol. 208, No.2. pp. 134-144.