Review of: "How Many Postulates Are Needed to Derive the Lorentz Transformation?"

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I think I understood the logic and the derivations behind this very interesting problem. The step-by-step approach of the author does show indeed that 4 postulates are needed to obtain the Lorentz transformation. In this respect, the logical deductions in each step are very useful and illuminating.

There is a question in my mind, and it concerns the initial setup of the problem: in my student days, I thought of this problem as one-dimensional in space. I saw the transformation equation for the x-coordinate, and I assumed that this was the only spatial dimension. When I saw the book also stating y=y' and z=z', I imagined that these equations are redundant, and I ignored them. I knew everything was occurring along the x-axis for the coordinate systems and for the motions w.r.t. these systems. In such a case, the initial setup is different from that considered by the author: there are no motions in y and z from the outset. And we cannot call that an assumption because these dimensions were supposed to be excluded from the start – i.e., the space where we are working is only 1+1 dimensional. (Unfortunately, by writing erroneously y=y' and z=z', the initial model became inaccurate.) So, one could argue that postulate 3 may not be needed (in this 1+1 dimensional setup).