ORIGINAL PAPER

Hesperus is Phosphorus, Indeed

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Abstract Tobias Hansson Wahlberg argues in a recent article that the truth of "Hesperus is Phosphorus" depends on the assumption that the endurance theory of persistence is true. I argue that the premise Wahlberg's conclusion is based upon leads to absurd consequences, therefore, nothing recommends it. As a consequence, "Hesperus is Phosphorus" has to be true, if it is true, regardless of which theory of persistence one is committed to.

Keywords Identity · Endurance · Perdurance · Mereology

Wahlberg ([2009](#)) argues in a recent article that the truth of "Hesperus is Phosphorus" depends on the assumption that the endurance theory of persistence is true. The statement is not true (or at least can reasonably be doubted), he argues, if one assumes (a) the theory of persistence according to which objects are four-dimensional entities, persisting through perdurance, i.e. by having temporal parts that are numerically distinct, and (b) the thesis of unrestricted mereological composition (UMC), that is, that any two things, however, scattered in space or time, compose a sum.

The main premise of his argument is that if four-dimensionalism and UMC are true, then the proper referent of "Hesperus" is not the whole persisting spacetime worm, but only the sum of the temporal parts of it that are visible in the evening. *Mutatis mutandis* for "Phosphorus". Here is how Wahlberg puts it:

> Suppose the UMC thesis is accepted: then, I observe, the identification of Phosphorus with Hesperus is no longer evident. A defender of this worldview is in a position to suggest that the mereological sum of the temporal parts of

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Venus which are visible in, and *only* in, the morning is the proper referent of "Phosphorus", and that the mereological sum of the temporal parts of Venus which are visible in, and *only* in, the evening is the proper referent of "Hesperus". (…)

Granting the suggested outlook, then, what we see shining brightly on a particular early morning is a common proper part of at least two distinct things: of Venus and of Phosphorus (…) We do not, however, see anything of Hesperus—a result which is in line with the beliefs of the ancient Greeks who introduced the names.

But why should one think that this premise is true? It is certainly generally false in the case of spatial parts: the fact that at any particular time I only see a proper spatial part of my mother, does not mean that I should be committed to, or even that that it would be acceptable for me to think that my mother's name, "Aranka", at some time, refers not to my mother, but to her skin only, if that is what is visible to me. It is very counterintuitive to think, for instance, that at any particular time, the name "The Moon", does not refer to The Moon, but to the visible part of The Moon, so the darks side of The Moon is never a referent of our visual observation based assertions. It would also be strange for an attorney to object to my testimony in court, after I have affirmed that I saw—through a keyhole, by clearly seeing his face—the accused being present in some location, that what I saw was only his face, not the whole of the accused.

But temporal parts are to be understood by analogy to spatial parts, and temporal unrestricted composition by analogy to spatial unrestricted composition. So if the consequences are absurd in the spatial case, they should be regarded as equally absurd in the temporal case: what we see in the morning is the whole spatiotemporal worm, by seeing a proper part of it, so the proper referent of "Phosphorus" is simply Venus, the persisting object, regardless of whether three- or four-dimensionalism is assumed. *Mutatis mutandis* for "Hesperus".

Hesperus is Phosphorus, indeed.

Reference

Wahlberg TH (2009) Is phosphorus hesperus? Axiomathes 19:101–102