

Is The Empty World a Possible World?

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Introduction

In his essay *The Leibnizian Cosmological Argument* [1] Alexander R. Pruss raises the question of the truth ground of alethic modal facts such as ‘It is necessary that P’, ‘It is impossible that Q’ or ‘It is possible that R’. Pruss presents five non-revisionist theories about what features of reality make alethic modal facts hold: narrowly logical, Lewisian, Platonic, Aristotelian-essentialist, and Aristotelian-causal. Pruss argues in detail for the unsatisfactory of the first four theories, and concludes that we must accept the Aristotelian-causal account until a better account is found. In this note I present an argument for the impossibility of the empty world. The conclusion that the empty world is not a possible world is derived from the following three premises:

- (a) The Aristotelian-causal account of alethic modal facts is correct,
- (b) The axiom of Brouwer holds,
- (c) Our world is not empty.

The Aristotelian-causal account of alethic modal facts

In his essay Pruss states that according to the Aristotelian-causal account of alethic modal facts “a non-actual state of affairs S is merely possible provided that something – an event or substance or collection of events or substances, say – exists (in the tenseless sense: existed, exists presently, exists eternally or will exist) with a causal power of bringing about S, or with a causal power of bringing about something with a causal power of bringing about S, or with a causal power of bringing about something with a causal power of bringing about something with a causal power of bringing about S, or more generally provided that something exists capable of originating a chain of exercises of causal power capable of leading to S”. Pruss explains further that, according to the

Aristotelian-causal account, “a state of affairs is possible if it is either actual or merely possible”.

The axiom of Brouwer

In the aforementioned essay Pruss provides the following description of the Brouwer axiom: “The Brouwer axiom in general states that if p holds, then it is a necessary truth that p is possible”. He later-on adds the following: “[...] the Brouwer axiom is intuitively plausible: however else things might have gone than they did, it would still be true that they could have gone as they actually did”. The Brouwer axiom says that if a possible world is accessible from our world, then it must be the case that our world is accessible from that world. The accessibility relation between possible worlds is in other words symmetrical.

The impossibility of the empty world

The impossibility of the empty world can be derived by deriving a contradiction from the assumption that the empty world is a possible world. Suppose that the empty world is a possible world. In that case that empty world could have been the actual world. Thus under these circumstances the assumption that the empty world is the actual world may not result in a contradiction. Assume that the empty world is the actual world. If the actual world would be the empty world, then there would not exist any *actual* state of affairs. There would neither exist something with a causal power of bringing about a state of affairs. Therefore there are also no *merely possible* state of affairs. Now, a state of affairs is possible if it is either actual or merely possible. From this it follows that there are no possible states of affairs in case the actual world is empty. However, we accept that *our world* is not empty (premise c). There are clearly a lot of existing states of affairs in our world. From the Brouwer axiom, which states that if p holds, then it is a necessary truth that p is possible, it follows that each existing state of affairs in our world (e.g. me writing this note) is necessarily a possible state of affairs. Therefore each existing state of affairs in our world must also be a possible state of affairs in case the actual world is empty. This contradicts our earlier result that there are no possible states of affairs in the empty world. From this contradiction it follows that the empty world cannot be the actual world. But this contradicts the assumption that the empty world is a possible world. Thus

the empty world is not a possible world. We therefore must conclude that the empty world is not a possible world if we accept the Aristotelian-causal account of alethic modal facts, the validity of the Brouwer axiom and the non-emptiness of our world.

Closing remarks

The argument shows that the empty world is impossible without having to argue for the existence of a necessary being. However, the validity of the third premise is based upon the a posteriori observation *that* our world is non-empty. The argument does not explain *why* our world is non-empty. Therefore the argument does not provide an explanatory reason for the impossibility of the empty world (since such an explanation would require an explanation of why our world is non-empty). The argument presented in this note thus only establishes the fact *that* the empty world is impossible. It does not explain *why* the empty world is impossible. A valid cosmological argument that proves the existence of a necessary being would count as a proper answer to the question why the empty world is impossible. Surely, cosmological arguments are a posteriori as well. Therefore these arguments only establish the fact that there exist a necessary being. They cannot explain why a necessary being exists. To obtain such an explanation the ontological argument can be invoked. The ontological argument answers the question why a necessary being exists.

Literature

1. Pruss, A.R., The Leibnizian Cosmological Argument, The Blackwell Companion to Natural Theology, edited by: W.L. Craig and J. P. Moreland, 2009