

Evaluation of Lewisian Modal Realism with Comparison to Classical Realism

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Abstract. Realism is for most scholars is a settled perspective of understanding of the world, as well as a set of assumed research paradigms that encompass the various realist theories and perspectives that have emerged and developed over time. First and foremost, realism is a philosophical tradition and a long-standing view to depict the world. The pessimistic understanding of moral progress and human capabilities underpins realism as a worldview. However, today's realists see history as cyclical rather than progressive, and they are deeply skeptical of humanity's ability to overcome recurring conflicts and establish long-term cooperation and peace. This study argues that through Lewis's work, the new trend of metaphysics is embracing a new kind of realism as the modal one.

Keywords: Modal realism; Possible worlds; David Lewis; Leibniz.

1. Introduction

The theory of possible world semantics was initially proposed by the philosopher Kripke to examine the intensional and extensional meaning that is assigned to a sentence via a logical system such as first-order logic [1]. And this theory was later enriched notably by David Lewis, an American philosopher who proposed a relatively radical version of modal realism. To summarize the theory in a simple way, modal realism refers to a metaphysical theory according to which there are many possible worlds just as real as the one in which we live. Lewis explicitly summarized his main thesis about modal realism in the preface of *On the Plurality of Worlds* as follows: The world in which we live is but one world among a plurality of worlds, and we who inhabit it are but a small fraction of the inhabitants of all worlds [2].

The possible worlds exist. This is the heart of modal realism established by David Lewis. It sounds strange, unrealistic and like a magical word and indeed has received a lot of criticism. But why are the advantages of believing in the actual existence of possible worlds instead of considering them as mere linguistic concepts? David explains that the employing possibilities are serviceable. For him, it helps to understand the possibility and necessity as well as a variety of notions in contemporary logic: counterfactual conditionals, and propositional logic [2, 3].

And undoubtedly, modal realism or the belief in the real existence of possible worlds also raises many important metaphysical questions, as it speaks of intrinsic properties and entities, and above all, leaves space to question the legitimacy and the reality of such a radical version of modal realism concerning the contemporary metaphysics. It is interesting to focus on this very "realism". What is on earth such realism? How real is it? It is merely a concept serviceable to modal logic implying that modal semantics are assigned a true or false value, relative to worlds to deal with the counterfactuals. Or does it describes the extent to which intensional entities are independent when constructing modal semantics for the quantified modal logic, individuals, and possible worlds? In either of these two respects, the ontological status of such a modal realism is doubtful and perhaps regresses to a logical language that primarily serves for structuring and quantifying alternatives to our actual world, one of the possible worlds. There could be another interpretation. It could be that possible worlds are not merely mental or linguistic constructions. They do exist, as Lewis proclaimed and as classical metaphysical realism characterized. However, this research does think it would be naive to attempt to find affinities between platonic realism (the very beginning of realism) and Lewis's modal realism, for the difference between the two is just huge. It should be noted that modal realism was established

in a new era in which a series of scientific revolutions has deeply transformed the old views in a lot of aspects, such as physics, cosmology, chemistry, and of course philosophy. Consequently, the definition of many notions has been modified: substances, entity, identity, and so on [4]. Nevertheless, if, in general, those who have adopted classical realism claim that mind-independent objects with certain attributes do exist, and if one of Lewis's many ambitions is to firmly affirm the existence of the possible worlds and to defend their concreteness (one of the four characteristics of Lewis' possible worlds), then it would not be unfair to say that Lewis's theory has many points of contact with the classical realism [5, 6]. In this regard, if the metaphysical worldview adopted by classical idealism refers to a general relationship between the reality and human mind, the modal realism I am discussing here has a narrower focus.

This study takes it would be helpful to mention philosopher Leibniz here. There are mainly two reasons. First, the concept of the possible world is indeed not new in philosophy. It can be traced back at least to the lexicon used by Leibniz in his theology and metaphysics. Leibniz is in general considered a modal realist, so there must be some affinities and differences in the metaphysical and logical construction of the elaboration of possible worlds between Leibniz and Lewis, therefore, examining Leibnizian arguments helps to take a better grasp of Lewis's realism. Secondly, and perhaps more specifically, it would be useful to explore the extent to which Leibniz has approached contemporary modal realism, and the other way around, to explore how ontologically real Lewisian realism is. And it is well-known that he thought that our world is the best one of all possible worlds. And a Leibnizian possible world consists of an infinite of single substances that make up the ultimately basic elements of the universe [7].

2. Lewisian modal realism

It may be helpful to review some points of modal realism that Lewis defends. It is well-known that his philosophy has been deeply influenced by philosophical skepticism: Humean supervenience, as Lewis described in the article *Humean Supervenience Debugged*, is the doctrine that all there is to the world is a vast mosaic of local matters of a particular fact, just one little thing and then another. In other words, Humean supervenience suggests that the Spatio-temporal structure of local micro-physical properties is an indispensable basis on which everything else depends. What's more, Hume's works have shown us how skeptical he was about the necessary connection between objects.

That leads to a penchant for Nomological Reductionism, that is to say, Lewis questioned the necessity of truth or laws, though he did not deny them completely. Thus, if anything can coexist with anything else based on this principle, the connection between Nomological Reductionism and Modal Combinatorialism is also self-evident. He showed a preference for a qualitative Occam's razor principle. "One should not multiply the type of entities beyond what is necessary." As opposed to a quantitative principle ("One should not multiply the number of entities beyond what is necessary.") If people employ the possibilities, it could allow the existence of modal facts about the world without all the redundancy caused by quantifications. In one of his works *Counterfactuals*, he defined the possible worlds with an intensive description. He started with a function description with natural language by attaching the permission of ordinary language to the paraphrase. In doing that, he argued that there are things that are beyond the way they are or the way they look like. From there he reached the naming work of possible worlds [8].

The world refers to everything around us, everything with which we can have a Spatio-temporal relationship. But worlds can be very different. Each of how worlds could have been possible world that is independent of our linguistic decisions as well as our conceptual schemes. Again, each world is a concrete entity that is no less real than our world. The concreteness of the world distinguishes Lewis' relatively radical realism from other moderate forms of modal realism: other possible worlds are as real and concrete as the one we live in. Thus, the separation of the possible from the actual does not boil down to a dichotomy between the concrete and the abstract, but to the fact that each world is an entity with no spatial or temporal relationship to any part of our world. Therefore, possible worlds

are isolated: there is no Spatio-temporal relationship between our world and other possible worlds. But for a possible world, is characterized by a Spatio-temporal distribution of intrinsic qualities which are fundamental [9].

3. Realism and Leibniz's monadology

Accordingly, Realism is for most scholars is a settled perspective of understanding of the world, as well as a set of assumed research paradigms that encompass the various realist theories and perspectives that have emerged and developed over time. First and foremost, realism is a philosophical tradition and a long-standing view to depict the world. The pessimistic understanding of moral progress and human capabilities underpins realism as a worldview. However, today's realists see history as cyclical rather than progressive, and they are deeply skeptical of humanity's ability to overcome recurring conflicts and establish long-term cooperation and peace. The realist stance tends to construct perceptions of the world more out of the evil in human nature and the tragedy of the cycle of human experience. These philosophical views of realism are dealing with world in a union or unique mass of truth rather than multiple ones [10]. The real realist of metaphysics is gone. If people take a while to compare the former idealist to Lewis' realism, this might be even more convincing.

Many points seem to be similar to Leibniz's modal metaphysics. But this study wants to turn to their differences first. The main differences are in two parts. On the one hand, the definition of actuality. In Leibniz's lexicon, actuality acquires a sense equivalent to reality. Of all the possible worlds created by God, the actual world presents the eternal verity by having reached the highest perfection, intelligibility, real harmony, and order. In other words, actuality is an absolute property of a single and unique world. As for Lewis, this term should be understood only as an indexical term that expresses a relationship between the world and the individuals within that world. The world in which we live now is the actual world containing us and all our surroundings.

And he gives the being of actuals and non-actuals the equivalent metaphysical status, whereas the non-actuals are not realized for they are not as perfect as the actuals. On the other, their philosophical motivation for defending the existence of possible worlds is different. For Leibniz, the fact that the divine choice is free supposes a plurality of possible worlds. His ultimate intention was thus to defend the absolute goodness of God, whereas clearly, Lewis focused more on bettering off a modal realism system used in semantics and logic. Postulating the existence of possible worlds, for him, helps to analyze modality into non-modal notions. And there are mainly two similarities: The first is that they all refuse the existence of cross-world identity, so for them the possible worlds are disjoint. The affinity is also found in the way how they construct a possible world, which leads to an observation of the crossover of their metaphysical and modal logical understanding. And this study would like to make comparisons mainly on two aspects, one is the fundamental properties that constitute a world, second is the mereological relation.

For Leibniz, a world is made up of living substances endowed with perceptions and appetite, namely the Monad. In Monadology, he characterized the Monad as the "simple substance which enters into compounds". These monads that make up the universe are non-composite, immaterial, soul-like entities. As far as Lewis is concerned, he adopted a realist view on defining the fundamental properties. A possible world contains just intrinsic properties of point-sized objects and Spatio-temporal relations.

Precisely, Leibniz defined a possible world as a collection or a set of all the possible compossible substances. And the existence of a possible world should not imply a contradiction. In Dialogue between Theophile and Polidore Leibniz developed a sketch of combinatorial theory: suppose that there are possible beings A, B, C, D, E, F, G equally perfect and existing, of which some are incompatible, A with B, B with D, D with G, G with C, C with F and F with E. And there are many ways to make sets, but there is only one way to make a set containing four members, ACDE. The existence of A, C, D, and E will be preferred over B, F, and G, which will be excluded because by taking any of them, we could not obtain four together. This combinatorial model shows that,

according to Leibniz, the logical space of possibilities is before their division into possible worlds. And each combination of many possibilities corresponds to a world. What is important is that the incompatibility of certain possible substances sets a limit on that and therefore excludes the possibility that the totality of possible substances can be included in a world [5]. Compossibility is then only a necessary but insufficient condition for being part of a world since the same possible substance can appear in several possible worlds. So for Leibniz, a possible world is thus not simply characterized as an agglomeration of non-contradictory substances, but they must be logically connected. If A exists, then B, who is connected with A, must exist as well. It also implies that different worlds can obey the same law, the combinatorial law. Therefore, not all the possibilities are actualized.

As for Lewis, there is a mereological relation between a possible world and all possible substances that are part of it. A world is constituted and unified by "world mates", things that are spatiotemporally connected. The Spatio-temporal relations are thus necessary and sufficient conditions of belonging to a world. Lewis claimed that possible worlds, as entities, are distributed in logical space, and there are enough possible worlds to occupy the entire logical space without gaps. As he said: "If there are many worlds, and every way that a world could be is a way that some world is, then whenever such-and-such might be the case, there is some world where such-and-such is the case." This supposes the plenitude of the possible worlds: any possibility can be realized in a world. To defend the extensional adequacy of his modal realism, Lewis proposed the principle of recombination according to which "anything can coexist with anything else and anything can fail to coexist with anything else".

More exactly, any two individual things can be recombined with each other and with themselves by means of duplicates -- entities that share the intrinsic properties of the duplicated entity. He did not put a restriction on the original formulation of the principle of recombination. However, in the absence of restriction, this principle is open to counterargument formulated by P. Forrest and D. Armstrong. Suppose that there are n possible objects. The recombination principle implies that there is a world with $2n$ distinct duplicates of a given object so that the total sum of possible objects is at least $2n$. Now since $2n > n$ ($n \geq 1$), it goes against the initial assumption that there are n possible objects. Therefore, a single world cannot contain all the possible individual objects, since it would always have to be larger than it is. Lewis's solution consists of presupposing that every possible world should obey a unique Spatio-temporal structure, which is based on the exclusion of island universes. In return, the rejection of island universes, by putting a constraint on the principle, excludes a priori the logical possibility of a tremendous world encompassing the totality of the logical space of possibilities. Thus, Lewis claimed that all the possibilities can't be realized according to the structure of the world. Therefore, both for Leibniz and Lewis, a mereological relationship makes up the order of all the possibilities in the universe. It applies not only to what exists, the actuals, but also to what is considered to be actualized, the possibles.

It argues that to evaluate how far Lewis and Leibniz have gone on modal realism, thinkability can play a key role. Leibnizian metaphysics lies in fact between idealism and realism, for he attached to the monads a substantial status by considering them as entities, but meanwhile, he also idealized a spatio-temporal relation, which, in the end, serves to provide a fundamental order for the universe. The mathematization of space and time and the postulate of an ultimately perfect creature, God, lead him to remain in a dichotomy between the abstracts and the concretes. As for Lewis, spacetime points are considered fundamental entities. I would argue therefore that his realism has escaped from the dichotomy that Leibniz got stuck with. And meanwhile, it should also not be interpreted as a narrow-downed version of classical realism.

4. Conclusion

The possible worlds he postulated are not independent of our minds, but rather dependent on our knowledge and reason. When people say Lewisian possible worlds do exist as he firmly defended, it would be tantamount to saying that he has constructed a reality perfectly thinkable. Here, thinkability is more or less related to logical consistency. It is not a mere linguistically arbitrary construction that

only exists in the imagination. Rather, here thinkability should be understood in a logical and metaphysical context. While classical realism uses a more speculative approach in an attempt to create a reality, the modal realism championed by Lewis is founded on a base of logical consistency by employing rational principles and aims at bettering the logical consistency of contemporary formal logic. Again, it can help to specify and understand the semantics value and the truth condition for sentences with a formal logic device. However, this existence of possible worlds should only be understood as a thesis for semantic realism, but not for physical realism. After all, the claim that multiple worlds exist physically is scientifically dubious.

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