

Rigid Designators and Descriptivism

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Abstract

Kripke distinguishes necessity and priority as two different categories: priority is a notion of epistemology, while necessity is a notion of metaphysics. Based on this fundamental argument, Kripke objects to Descriptivism, which takes certain properties as the criteria of identity across all possible worlds, and he argues for the legitimacy of a posteriori necessary truths. Kripke also criticizes Russell's methods for dealing with empty descriptions, and he puts forward a modal world to explain the rigidity of proper names. However, the concept of rigid designation faces some challenges, including Kripke admitting to weak essentialism when he rejects transworld identification, and the fact that the truth value of a sentence containing a rigid designator may change.

Keywords

Rigid Designators, Descriptivism, Weak Essentialism, Truth Value

1. Introduction

Kripke (1980) argues that a rigid designator designates the same object in every possible world. Kripke is not the first one to put forward the concept. The first philosophers to come up with rigidity are Ruth Marcus and Alvin Plantinga, but Kripke makes the concept more professional (see Garrett, 2005: p. 1600).

Kripke's argument for rigid designators is based on his distinction between necessity and priority. From the view of Kripke, necessity and priority connect with two different categories. Priority is a notion of epistemology; necessity is a notion of metaphysics. Although the statement is a priori, it may not be necessarily true. Priority and necessity cannot interchange with each other (Kripke, 1980: p. 36).

Kripke exerts the example of the Goldbach conjecture to reveal that even mathematical objects are not priori true, in that we do not know Goldbach conjecture is true or false yet. But the necessity cares about the truth value which be-

longs to the metaphysics category. After distinguishing the concept of necessity and priority, Kripke objects to the traditional category and terms which claim necessity and priority are the same epistemological category.

In this paper, based on Kripke's argument, I analyze Kripke's criticism to Descriptivism from several perspectives, including proper names are not equal to definite descriptions on semantics, contingent definite descriptions fail to refer to the same object across all possible worlds when it comes to empty names, and Descriptivism fails to use the way of meta language to help contingent statements avoid requiring a posterior experience to prove the truth value of sentences. And I argue that rigid designators have advantages in explaining proper names and empty names. However, Kripke's criticism has some problems, especially in the concept of rigid designators. The rigid designators imply weak essentialism, which means a consistent object-property combination may lead to identity and change sentences' truth value when the entity changes as time goes by.

If we defend Kripke's rigid designators, then he has to admit weak references, which means it is not necessary for every part of the object needs to be the same in order to pursue transworld identification. And rigid designators may not change sentences' truth value as David Lewis's Counterpart Theory claims. David Lewis's Counterpart theory means the counterpart similar to the individual can only exist in possible worlds. However, Kripke claims the counterpart owns much more properties than the object in the real world and does not admit the object's modal state in reality. Therefore, Counterpart Theory's objection to rigid designators is not successful.

2. Kripke's Criticism to Descriptivism

2.1. Proper Names Are Not Equal to Definite Descriptions on Semantics

According to Descriptivism, proper names are semantically equivalent to Definite Descriptions (DD) (so that the former can be replaced by the latter in a sentence without altering the meaning of the sentence). The logical form of a proper name includes a definite description is:

$$F \text{ is } \varphi : \exists x(\varphi(x) \wedge \forall y(\varphi(y) \rightarrow x = y) \wedge Fx) \quad (1)$$

It means that there is something that is, and only one thing is, and that thing is F (see Russell, 1905: pp. 479-493). In these sentences, the certain property $(\varphi(x) \wedge Fx)$ is not empty and is instantiated by only one thing. Therefore, we are actually talking about a certain property $(\varphi(x) \wedge Fx)$, not an individual, not the object we refer to. The properties become the most important thing to be described. But it will meet a challenge in identity.

Kripke claims that descriptivism mistakes certain properties and the criteria of identity across possible worlds. And certain properties are not sufficient conditions for the criteria of identity. Such as the example "Nixon won the election". The certain property is "won the election". However, it is not true in every poss-

ible world. It is contingently true that Nixon won the election. And it is possible that he might also have lost, the winner might have been someone else, or the election may not even exist. Then the winner might be the loser. If objects are judged just according to properties, then one property could correspond to different objects, or one object could correspond to different properties. The properties of objects do not designate the same objects in all possible worlds. If we designate Nixon as “the man who won the election in 1968” and claim it is necessarily true, then it must have intuition behind the notion of necessity (see Kripke, 1980: p. 41). Although this view is supported by most of philosophers, it has problems in explaining the identity in all possible worlds. The intuition contains something untested.

Kripke also criticizes that the transworld identification theory is incorrect. Transworld identification theory declares that the same object exists in distinct possible worlds, or some object exists in more than one possible world and asks about identity through its component parts. Transworld identification’s possible worlds are Aristotelian, the most important properties in possible worlds are identified with the object in the actual world. Kripke claims that important properties are not essential for identification. He argues that it is the rigid designators that have the same references in a counterfactual situation. And proper names are rigid designators (see Kripke, 1980: p. 77).

Kripke uses the example of Hesperus and Phosphorus to prove they refer to the names of Venus in all the possible worlds. “Hesperus = Phosphorus” is necessarily true, because they are proper names for the same object—Venus, and Venus = Venus is true in all the possible worlds. However, that is not prior truth, but a posteriori truth. Hesperus is the star in the evening, and Phosphorus is the star in the morning, they are seen as the same star due to empirical observation, which reveals that a posteriori can be necessarily true (see Kripke, 1980: p. 110). However, a description like “Phosphorus is the brightest star in the morning in spite of the moon” is not rigid, although it is true. However, it is not necessarily true. Maybe another star is the brightest star in the morning, but we made a mistake by thinking phosphorus is the brightest. In that case, the description is false and not rigid. Descriptivism tried to use the cluster concept to save the theory. The cluster concept means expanding descriptions of proper names into a collection of several predicates. Kripke thinks the cluster descriptions cannot save the description, as a collection of several predicates still faces the identity challenge like Phosphorus. Therefore, descriptivism has defects when dealing with the question of identity (see Kripke, 1980: p. 120).

Therefore, Kripke claims that Descriptivism mistakes certain properties and the criteria of identity across possible worlds. Kripke thinks only the rigid designators have the same references in a counterfactual situation, and even the cluster descriptions cannot save the description.

2.2. Criticism to Descriptivism’s Way of Deal with Empty Name

Descriptivism’s way of dealing with empty names is criticized by Kripke as well.

Especially that of Russell's argument. Kripke declares that contingent definite descriptions fail to refer to the same object across all possible worlds while the rigid designators constantly designate the same entity in all metaphysically possible worlds.

Concretely, Russell considers sentences like "The present king of France is bald" to be false because the term "the present king of France" is an empty description that denotes nothing. The sentence "The French King is not bald", has two meanings:

(I) "The French King is such that he is non-bald", the logical form follows:

$$\text{Wide scope: } \exists x[F(x) \wedge \forall y(F(y) \rightarrow x = y) \wedge \sim Bx] \quad (2)$$

(II) "It is not the case that the French King is bald", the logical form follows:

$$\text{Narrow scope: } \sim \exists x[F(x) \wedge \forall y(F(y) \rightarrow x = y) \wedge Bx] \quad (3)$$

(see Sider, 2010: p. 151)

These two sentences are different and ambiguous explanations of the original sentence. The first sentence implies that there is a unique French King exists, meaning the property of the French King is uniquely instantiated. Therefore, the sentence is false when the French King is an empty name. The second sentence claims that it is not the case that the French King is bald, but does not imply that there is a French King who exists. The property of the French King is not uniquely instantiated. Hence the second sentence would be true if there's a unique French King who is not bald, or when there are no French Kings at all or if there is more than one French King who exists. Russell claims that empty descriptions' logical forms are not fit existential sentences and empty names have no references (see Sider, 2010: p. 151). Whatever we supposed the King exists or not, the King does not exist in reality. Therefore, these two sentences are not right. As a consequence, although analyzing the two possible meanings, the conclusion that empty names have no references remained.

Kripke claims that the method of Russell is not successful. In the view of Russell, the truth value of the proposition depends on whether the entity exists in reality. The necessary condition of the proposition "The French King is such that he is non-bald" is the French King exists in reality. "Existence" is a property of an entity. However, in Kripke's opinion, existence is a real predicate of individuals. Some things only have contingent existence or do not exist. Therefore, the statement should not be reduced to the properties of the entity (Kripke, 1980: p. 71).

Kripke objects to the method of Russell to deal with empty names and fictional entities from the other aspects: 1) The narrative fictional statements have a connection with reality. The fiction is created by referring to some cases in reality; 2) Existential statements have to be evaluated such as "Hamlet thinks", not just "Hamlet exists"; 3) Fictional characters exist in fictional works. But when we are talking about them or when they are described, these fictional objects have meanings and references, although the referred do not exist in reality (see

Kripke, 1980: p. 72). Therefore, Kripke claims Russell's argument for empty names is not successful, because existence is a real predicate of individuals, not based on the entities that exist in reality.

2.3. Criticism to Meta Language of Descriptivism

Descriptivism tries to use the way of meta language to help contingent statements avoid requiring a posterior experience to prove the truth value of sentences. Consider the following two sentences:

(III) Yarlung Tsangpo Grand Canyon is deeper than any other canyon in the world.

In the third sentence, if "Yarlung Tsangpo Grand Canyon" were changed into a meta-language statement "the canyon named Yarlung Tsangpo Grand Canyon", then it can lead to the dilemma of inequality of semantics. However, Kripke's framework solves the problem and he argues for the possibility of posterior truth.

Furthermore, according to descriptivism, define descriptions can take place of proper names. Therefore, the third sentence changed into:

(IV) The deepest canyon is deeper than the other canyon.

But this sentence is analytical, its truth value does not depend on experiences, but prior knowledge. In other words, the sentence does not maintain the meaning of "Yarlung Tsangpo Grand Canyon is deeper than any other canyon in the world", because "Yarlung Tsangpo Grand Canyon is deeper than any other canyon in the world" is a posterior statement. We cannot priority know which canyon is deeper than the others. Therefore, it is false that define descriptions take place of proper names.

Kripke argues for the truth of a posterior statement and that the most important thing is using the modal logic and possible worlds to make up the defect of descriptivism. The example of Nixon can be described in this logical form:

$$\exists x(N(x) \wedge \forall y(N(y) \rightarrow x = y) \wedge \diamond \neg NN(x)) \quad (4)$$

This means "The person named Nixon is such that he is possibly not named 'Nixon'". However, according to Russell, when meta-language description is added, this sentence would be "The person named Nixon is such that he is not named 'Nixon'", the logical form is:

$$\exists x(N(x) \wedge \forall y(N(y) \rightarrow x = y) \wedge \neg NN(x)) \quad (5)$$

However, this cannot be true, it is false in every possible world, which constitutes a counterexample of descriptivism. However, when adding the word "possibly", "The person named Nixon is such that he is possibly not named 'Nixon'" is conceivable and acceptable. Even if Nixon may have another name in another possible world, that does not affect the proper name referring to the same object in every possible world, if the object exists in another possible world. This reveals that certain properties are not vital to the identity of objects, and it is rigidity that is more vital in every possible world.

Even if according to *De dicto* reading to talk about this kind of possibility, the sentence changed into “It is possible that Nixon is not named Nixon”. The logical form is:

$$\Diamond \exists x (N(x) \wedge \forall y (N(y) \rightarrow x = y) \wedge \neg NN(x)) \quad (6)$$

This sentence is true in all possible worlds. Therefore, Kripke’s objection to Russell stands. The meta-language explanation of Russell cannot reject rigid designators. Even in Russell’s narrow scope, the sentence changed into “possibly, it is not the case that Nixon named Nixon”, the logical form is:

$$\Diamond \neg \exists x (N(x) \wedge \forall y (N(y) \rightarrow x = y) \wedge NN(x)) \quad (7)$$

This sentence is also true, which shows objects may have different properties in different possible worlds, such as different ways of being named. But Descriptivism confuses a prior truth with a posterior truth when uses define descriptions to take the place of proper names. Therefore, Descriptivism cannot ensure identity in every possible world.

Thus, Kripke’s argument is more reasonable than Descriptivism, because Descriptivism cannot ensure identity in every possible world, but rigid designators can. The meta-language way cannot help Descriptivism to avoid the posterior experience to prove the truth value of sentences.

3. The Problems of Kripke’s Criticism to Descriptivism

However, Kripke’s rigid designators face some challenges, including: 1) David B. Martens argues Kripke’s framework admits weak essentialism; 2) Gibbard and David Lewis think that sentences’ truth value changes when the entity changes as time goes by.

3.1. Rigid Designators Imply Weak Essentialism

David B. Martens (2006) argues that Kripke denies Strong Essentialism that for every set of objects and every set of properties, some consistent object-property combination from these sets is not possible, but affirms Weak Essentialism that for some set of objects and some sets of properties, some consistent object-property combination from these sets is not possible (Martens, 2006: p. 585). Strong Essentialism means some consistent object-property combination is not a sufficient condition of identity. However, Weak Essentialism does not object to the possibility of consistent object-property combinations leading to the identity, which makes room for some objects being identified with some properties of the object. David B. Martens thinks Kripke’s example of the table admitted he agreed with weak essentialism.

Let us return to the argument of the table. In order to object to the transworld identification, Kripke thinks when we try to decide the identity of the table across the possible worlds, we do not need to focus too much on the molecules of the table or some basic particulars of the entity. They are not the necessary

and sufficient conditions for the identity of the table. The most important point is that in counterfactual situations, it is purely qualitative descriptions that concern the object we are talking about. We will focus on certain properties such as the color of the table and ignore the molecules of the table. The bundle of qualities as higher-degree objects is still not identified with particulars. Kripke admits that the table is neither identified with the bundle of properties nor a subset of its essential properties (Kripke, 1980: p. 52). This shows that Kripke rejects regard to properties as criteria of identity. But he admits the set of properties is higher than basic properties. For instance, molecules are basic properties, color properties are on a higher level than molecules. Although Kripke refuses to regard properties as a criterion of identity, not every consistent object-property combination cannot contribute to identity. If we just qualitatively describe the object, we focus on the properties of the object, then the object and properties are consistent. However, when the possible worlds are considered, although these properties may be consistent with the object, the object is not only equal to the description or stipulation of the property but also has other possibilities. The “possibly” cannot be only defined by certain properties or bundles of qualities. As a result, Kripke commits weak essentialism that a consistent object-property combination may lead to identity.

If Kripke wants to reject weak essentialism, then he has to admit weak references to respond to the objection. Quoting the example of Quine, Gavagai, and rabbit. The aboriginal points to the rabbit and says Gavagai, then we think Gavagai means rabbit. However, the translation is undetermined. The aboriginal might be referring to the part of the rabbit, its head, or its color. These cases fail to refer to the whole rabbit in the context.

Kripke may respond that it is not necessary for every part of the object to pursue transworld identification. One proper name refers to the same object in all possible worlds and has rigidity. In Gavagai’s context, the whole rabbit may not be named Gavagai. If Gavagai is just part of the rabbit, then it should correspond to other proper names, not the name “rabbit” in our language. If had to admit they refer to the same rabbit, then the reference is a weak reference, not a rigid one.

3.2. Rigid Designators Change the Truth Value of Sentences

Rigid designators designate the same object in every possible world, then if one sentence includes a rigid designator, its truth value should not change. According to our explanations above, Kripke thinks “possibly” can ensure the truth value of sentences. However, Allan Gibbard (1975) rejects that “possibly” can ensure the truth value. He says if one chunk of clay is made into a statue, the object “clay” changes into the object “statue”. The sentences referring to them should have the same truth value if they are the same object. However, if the clay is named “David”, and the statue is named “Lumpl”, then consider the following two sentences:

(V) “Possibly, David is no statue”.

(The truth value is false);

(VI) “Possibly, Lump1 is no statue”.

(The truth value is true).

If David and Lump1 are rigid designators and refer to the same object in all possible worlds then they should have the same truth value and “David = Lump1” is necessarily true. However, the truth value is the opposite in these two sentences. Therefore, Kripke’s rigid designator faces challenges.

To respond to this objection, once we ignore their constitutional relationship, we can say that clay and the statue can be regarded as the same object. The lump of clay being shaped into a statue is an accidental property. The fact that CLAY has different properties in different possible worlds is no problem for Kripke’s theory. Besides, if “David” is a name referring to this particular statue, then in worlds where the lump of clay is “Lump1” actually, then David does not exist. Therefore, the fifth sentence’s truth value is true. There is no problem with Kripke’s rigid designators.

However, if time is taken into consideration, the clay changed its shape as time goes by. Before the clay becomes a statue, the clay is not a statue yet; once the clay becomes a statue, they are the same object. If the statue breaks into several parts, is that the statue no longer exists, just the clay? Is it that the broken statue is still the statue regardless of the change in shape, or the broken statue is no longer the statue before? Considering all the conditions, the truth value of statements containing the clay and the statue is undetermined.

If we want to defend Kripke’s rigid designators, then we should prove although the truth value of statements containing clay and statue is indeterminate, (V) and (VI) can still be true simultaneously. If in sentence (V), the clay does constitute the statue, instead of the two special conditions when clay had not constituted the statue yet or the statue is broken, then sentence (V) is true. And even if in the two special conditions, sentence (VI) is true as well. Therefore, these responses do not exclude the possibility of two sentences being true at the same time, which contradicts the supposition of Gibbard that the whole lump of clay constitutes a statue, and it needs more discussion because we are not sure whether a broken statue is a statue. If sentence (VI) is true, it only needs to commit Lump1 is clay. In a more complicated scenario, if half of one chunk of clay is made into a statue, and the other half keeps the shape of clay, could the name “David” refer to the new two shapes of the clay? If Kripke wants to preserve the rigidity of rigid designators, then he has to admit weak reference.

David Lewis has a similar opinion as Gibbard. David Lewis tries to use counterpart theory to argue that rigid designators change a sentence’s truth value. Counterpart Theory (CT for short) requires that individuals only exist in one world. The counterpart similar to the individual can only exist in possible worlds. David Lewis uses the example of the Great Western Railway (GWR) and GWR—which loses part of the rail to explain the paradox that the whole railway

and the incomplete railway refer to the same object. They create different context and represent in different ways, and why the reality represents them twice? (Lewis, 1986: p. 286). According to CT, David Lewis would think the clay and the statue could have been the identity pair but have the possibility of being a non-identity pair. The identity pair exists in reality and the non-identity pair exists in another possible world. The identity is contingent. Besides, the truth value changes as Gibbard says, even in terms of CT. To solve the paradox of coincidence, Lewis claims we have to accept inconstancy: one object may change into another object and become part of a non-identity pair. This rejects Kripke's rigid designator argument.

Kripke responds to this rejection and analyzes an example that the table in the room may be made of ice, wood, or other materials (Kripke, 1980: p. 142). Kripke said that the table can be made of different materials even unusual materials. The ice table could exist in this world, and its counterpart in a possible world could exist as well. Therefore, counterpart theory is not a completely opposite theory to rigid designator. Instead, it seems CT could explain the intuitions of modal worlds although Kripke did not want to admit it.

However, Kripke criticizes that CT denies that individuals exist in other possible worlds and that only counterpart exists in other possible worlds. If we say Nixon might have won the election, we are talking about the counterpart in another world, but ignore what might happen to Nixon in reality. We do not care whether the counterpart in another world would encounter something (see Kripke, 1980: p. 45). The key point of this objection is the possibility of the properties of an object cannot just belong to the counterpart. And our attitude to the object in reality and in possible worlds is different. It is important to care about the object in reality, not just its counterpart in a possible world. Therefore, Lewis's objection to Kripke is not successful.

Furthermore, although Kripke's rigid designators could respond to David Lewis's Counterpart Theory from the perspective of the object in reality, Kripke does not give a better response to deny the sentence's truth value changed in different contexts. Therefore, we need more exploration on this question, especially on the concept of weak reference, to defend that even if only refer to the part of an object, we can refer to the object with a weak meaning.

4. Conclusion

Kripke's argument for rigid designation faces some challenges. First, Kripke's rejection of transworld identification means that he must admit to weak essentialism, which in turn requires him to allow for weak references. Second, the truth value of a sentence containing a rigid designator can change in different contexts, which seems to contradict the rules of rigid designation. To address this issue, David Lewis proposed counterpart theory, which allows for inconstancy, meaning that an object can change into a non-identity pair. However, while Kripke acknowledges that counterpart theory is an important part of mod-

al logic, it cannot fully explain objects in the real world. Therefore, Lewis's objection to Kripke's argument is not successful. Nevertheless, Kripke needs to clarify the concept of weak reference to resolve the issue of changing truth values.

Conflicts of Interest

The author declares that they have no competing interests.

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