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Two Types of Counterpart Relations: Can I be an angel?

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Abstract

The main question of this paper is whether any modal properties are ascribed to an object or not. According to David Lewis's counterpart theory, the answer is yes and no. It is yes only if we provide appropriate contexts where counterpart relationships hold between possible objects. This sort of counterpart relations is mind-dependent since its establishment depends on what people pay attention to etc.. It allowed that any objects have any modal properties in this case. On the other hand, the answer is no only if counterpart relations are determined by Lewis's theory of natural properties. This sort of counterpart relations is mind-independent since they are fixed by virtue of objective resemblance between objects, that is, one role of natural properties. I show that there are these two types of counterpart relations in Lewisian metaphysics. Moreover, I point out that the range of mind-independent counterpart relations corresponds to that of *possibly* nomological possibilities. In the result, any modal properties are not ascribed to possible objects in the case of mind-independent counterpart relationships involved natural properties.

0. Introduction

Counterpart relations hold between possible objects in terms of their similarities. The aim of this paper is to clarify the two types of counterpart relations in Lewisian metaphysics: mind-dependent and mind-independent relations. By 'Lewisian metaphysics', I refer to theories of modal realism and natural properties by David Lewis

(1941–2001). Especially natural properties play an important role in mind-independent counterpart relations, because they contribute to objective similarities between the counterparts. An object has different sorts of possible properties, which depend on the context of the counterpart relation. I will try to clarify what kind of modalities corresponds to the different possible properties ascribed to each type of counterpart relation.

1. Mind-dependent counterpart relations

1.1 De re modality in Lewis's counterpart theory

In the first section, I will review the explanation for de re modality by the counterpart theory and then I will show through examples that the similarities, which determine whether two objects can be considered counterparts, are mind-dependent.

The counterpart theory was proposed as a formal theory for the analysis of modal statements (cf. Lewis, 1968). I will focus on the ontological doctrine behind this theory: modal realism[1]. According to modal realism, each possible world exists as a concrete object that is composed of possible individuals; possible worlds are spatiotemporally and causally independent from each other and no world has the privilege of being the only actual one. Roughly speaking, there can be an object if there is at least one world in which it exists. Modality is the quantification of concrete possible worlds in modal realism. Moreover, modal realists give an account of possible properties ascribed to an object in terms of counterpart relations between possible individuals in the following way:

(1) Possibly an object A at a world W has a property F. ⇔ for some A' and W', W' is a world, and A' at W' is the counterpart of A at W, and A' has P.

The point is that one object, which has certain possible properties, stands in a counterpart relation with another object. Counterpart relations are determined by *similarity* relations (cf. *ibid.*: 115). An object is the counterpart of another object when they are similar to each other in many aspects[2]. Counterparts are selected in the following way:

(2) For any X, Y, W, W', X at world W is a counterpart of Y at world W'. ⇔ W and W' are worlds, and X is at W and Y is at W', and X is more similar to Y than any other objects at W.

Similarity relations, however, are vague. It is difficult to determine which aspects are relevant for judging the similarity between objects. It is also vague how each aspect should be weighted, once one has determined which aspects are relevant. Anything is, and is not, similar to anything else in countless aspects. This means that, for any two objects, there are some cases in which one is the counterpart of the other, and other cases in which it is not. This vagueness is a sign that counterpart relations are context-dependent. It is determined by the context which aspect is selected and how it is weighted. Counterpart relations would not be specified if they were regarded as independent from any context. It depends on the situation if one object is a counterpart of another object.

1.2 Some examples of mind-dependent counterpart relations

Consider the context-dependency of counterpart relations through the following examples. The term 'context' in this paper means the aspects of an object to which we pay attention. Take the following counterfactual statements:

(3) David might have been killed by Saul.
(4) David might have been an angel.
(5) David might have been an equilateral triangle.

I am sure that almost all people understand (3). But (4) might be problematic. If it were the situation (4), it would be a problem what made human David and angel David identical. In case of (5), it might be mysterious what this situation is. Counterpart relations, however, are context-dependent. In some contexts, each modal property in (3) – (5): possibly being killed by Saul, possibly being an angel and possibly being an equilateral triangle.

Firstly, in the case of (3), I think that you wonder what context prevents a property of possibly being killed by Saul from ascribing to David. Since that possibility is easily imagined because of a historical fact: King Saul had tried to kill his servant David, but failed to do it. But there is a context that situation (3) doesn't obtain if David at the actual world stands in a counterpart relation only to himself. In such a case, that is, an object that has been killed by Saul at some world is not entitled to a counterpart of David at the actual world.

Secondly, there are some contexts in which an object being an angel is among the

counterparts of David and other contexts in which it is not. On one hand, possibly being an angel is ascribed to David in the case that, for example, his identity is guaranteed by the identity of his non-material soul if there were such a thing. We would adopt this criterion of identity when we would talk about the God. It is not important whether the God or angels exist in this world, but I rather want to focus on the counterpart theory's analysis of the possibility. This is analyzed in terms of the counterpart relation between a possible object that is an angel and David at the actual world. On the other hand, possibly being an angel cannot be ascribed to David when the essence of an object is identified with its origins. According to this form of essentialism, specified sperm and egg are regarded as David's origins (cf. Kripke 1980: 133). Even if a person in another world were almost same as David in all aspects except the origins, he would not be identified with David. Following this criterion, however, it is impossible that David is an angel because an angel is never an entity that comes from a sperm and an egg of human beings.

Finally, in the case of (5), it is difficult to imagine a context that a modal property of possibly being an equilateral triangle is ascribed to a person. However, this difficulty doesn't mean that there is no such a context, although most of us cannot imagine that situation. Given such a suitable context, a counterpart of David that is an equilateral triangle at some world.

Modal realists admit a vast number of possibilities, that is, possible worlds composed of possible objects even if they are beyond the ability of our languages or thoughts and we are unable to express them. Among abundant possible worlds and objects, counterpart relations hold between possible objects if a suitable context is provided. To provide a context means that we have a mind with specific interests. Therefore, it depends on the context whether possible properties are ascribed to objects, because it depends on the context whether counterpart relations are held in the counterpart theory. Besides, it depends on our mind which context is relevant. In short, given the question that what kind of possible properties is ascribed to objects, counterpart theorists answer that any properties can be ascribed to them if a suitable context is provided.

2. Mind-independent counterpart relations

2.1 Natural properties and natural similarities

Contrasted with the mind-dependency of counterpart relations, some counterpart rela-

tions are mind-independent in terms of the naturalness of the properties (cf. Lewis, 1983). In this section, I will show that natural properties play a role in determining whether objects stand in mind-independent counterpart relation to other objects.

To show this, I will review the concept of natural properties by Lewis and explain similarity and counterpart relations in terms of the naturalness of properties. The concept of natural properties is reflected by Lewis's inegalitarianism of properties, according to which some properties are special but others are not. Lewis regards properties as classes, called 'class nominalism',[3] and defines them in the following way:

(6) A has a property P ⇔ A is a member of a class C composed of objects that are P.

By this definition, A and B share a property P, only if both A and B are members of class C. This definition doesn't fail to circularity opposed to what it looks like. This is the reason why the members of class C stand in an objective resemblance relation to each other. It is a primitive or non-analyzable fact (cf., Lewis, 1983; 352).

All classes are by definition identified by some properties regardless of how gerrymander or disjunctive they are. For example, consider the following two properties: a property of being human, and a property of being human or being a prime numbers or being an armchair. The former seems to be 'an ordinary property' that might be called yet the latter not. Lewis tries to make a distinction between them. He differentiate classes that 'carve at the joints in nature' from miscellaneous classes such as a class composed of elements that are human or are prime numbers or armchairs. Naturalness serves as making this distinction among them, although they are entitled to properties in terms of specific theory, that is, class nominalism.

Moreover, it is the point that naturalness is matters of degrees. Any properties are more (or less) natural than others, or as equally natural as them. Perfect natural properties are special among them. They are the most natural, the basis of reality, not negative, disjunctive or structured properties (cf., Lewis, 2009; 204). Other properties's degree of naturalness is determined by the length of 'the chain of definability' from perfect natural properties.

When discussing the concept of naturalness, there are four features which need to be clarified. The first feature of perfect natural properties is that they are classes of simples that have no proper parts. This is one reason why Lewis takes them as non-structured properties as mentioned above. The other reason why is that perfect natural properties

are regarded as local quality occupying single spatiotemporal points (cf., Lewis, 1994; 474). The size of each member of perfect natural properties should be the same as the size of point-sized objects if perfect natural properties are equal to the class of objects that occupy spatiotemporal points. Moreover, it does not make sense for point-sized objects to have proper parts. Therefore, it is a plausible idea that perfect natural properties are classes of simples.

The second feature of perfect natural properties is its contribution to objective resemblance between objects (Lewis, 1983; 355–356). This objective resemblance is not a vague similarity mentioned above but involves the qualitative identity. Two objects are duplicates if they objectively resemble in all aspects. How natural properties are related to objective resemblance can be stipulated as follows;

(7) A objectively resembles B in some respects ⇔ A and B share some perfect natural properties.

The third feature of perfect natural properties involves the causal power of natural law. We can express this feature as the selection of properties that have causal power. It does not seem arguable that causation involves natural laws. In one of the simplest views, natural laws are expressed by universal implication propositions; for any x, Px implies Qx. Perfect natural properties are applied to 'P' and 'Q'. As pointed out by Schaffer (2004), it seems that perfect natural properties are not suitable for this feature because it is often the case that more complex properties play a role of causal powers rather than properties of being simples. For example, a property of being a synapse is not a kind of being a simple but has a causal power that permits a neuron to pass a signal to another cell. I think this is not critical to the third feature of natural properties, since it seems plausible that complex properties that have a causal power are determined by perfect natural properties which are their proper parts. Although this is a different situation from those in which non-perfect or complex properties have causal powers, causal powers of perfect natural properties are involved in those of non-perfect natural properties. We have to address the relation between perfect natural properties and other properties. Lewis supposes that other properties supervene on perfect natural properties (Lewis, 1994; 474). In general, supervenience relations between different kinds of properties are defined as follows:

(8) P-type properties supervene on perfect natural properties Q and P-type properties are not perfect natural ⇔ it is impossible that P-type properties differ without Q differing.

It follows that less natural properties supervene on more natural properties. It does not make sense of being a natural property simpliciter, because naturalness is a comparative concept and therefore there is no unique criteria of distinction between natural and non-natural properties.

In short, the four features of perfect natural properties are as follows;

(9) Perfect natural properties are simples to compose reality.
(10) Perfect natural properties are to single out the properties that contribute to objective resemblance.
(11) Perfect natural properties are to single out the properties that have causal powers.
(12) Less natural properties supervene on perfect natural properties.

2.2 Natural similarities and natural counterparts

I will argue that some counterpart relations are mind-independent if natural properties determine the objective resemblance of counterpart relations. This relation has been discussed in Buras (2006) regarding essentialism. I agree to the basic idea, but there is a room to develop his formulation. Buras (2006) argued that, if two distinct objects share at least one perfect natural property, they are 'perfectly naturally similar' to each other. This is not sufficient to determine counterpart relations because there are many objects in one world that share the same perfect natural property with that of a specific object in another world. In the light of perfectly natural similarity, it is defined that x is a counterpart of y in the following way:

(13) x and y stand in a wholly perfect natural relation ⇔ x and y stand in perfectly naturally similar relation, and for no z, z and y stands in perfectly naturally similar relation and z share more natural properties with y than x (cf., Buras, 2006).

In this definition, 'wholly' means that, when one considers not special properties but various properties of possible objects, both objects stand in a perfect natural relation to each other in regards to all aspects. That is, if x and y stand in wholly perfectly naturally similar relation, x shares the most perfect natural properties with y among objects in the

world in which x exists. Wholly perfect natural relations are determined independently from our thoughts and languages or contexts, since perfect natural properties are independent from them. Thereby, 'maximal natural counterparts' can be defined as follows:

(14) x is a maximal natural counterpart of y. ⇔ x and y stand in a wholly perfectly natural similarity relation.

In other words, for some x, x is a maximal perfect natural counterpart of y in a world if x and y share the most perfect natural properties. From attributing possible properties from counterpart relations and determining counterparts from similarity relations, it follows that y can have the same properties as x if they stand in a maximal counterpart relation. Moreover, it is mind-independent de re modality if attributing possible properties to objects is analyzed according to (14), since maximal natural counterpart relations are determined without context dependency. This independency consists of perfectly natural similarity between possible objects. The similarity does not depend on the context, but is determined by the way of the world. I will develop Buras's formalization. Some supplements are required, because objects expressed by 'x' and 'y' in (14) are limited to objects belonging to classes of perfect natural properties. No object appears in variables there except members of perfect natural properties. For example, David cannot be applied to definition (14), because he is a human being and not a simple. Therefore, we need to expand the definition to select natural counterpart relations between complex objects as follows:

(15) For any x, y, x and y that are not members of perfect natural properties, x is a maximal perfect natural counterpart of y. ⇔ For any x, y, z, o, z that is a proper part of x stands in wholly perfectly natural similarity to o that is a proper part of y.

It is an important point that counterparts are selected from a point of view of perfect natural properties. It is determined independently from our concepts and language what natural properties are. Therefore, natural counterpart relations are mind-independent. Mind-independent counterpart relations show that ascribing possible properties to objects is not wholly mind-dependent. In short, focusing on the theory of natural properties, counterpart relations are mind-independent, because similarity relations are mind-independent in this case.

3. Natural counterpart relations and possibly nomological possibilities

However, if mind-dependent counterpart relations are a useful concept to analyze modal statements in various contexts, one problem arises: what kind of possibility do mind-independent natural counterparts determine? I will discuss this problem in the final section.

It seems most plausible that the range of natural counterpart relations is nomological possibilities: possibilities that are allowed until they violate natural laws at the worlds. Perfect natural properties single out properties that have causal powers as mentioned in (11). Natural laws involve causal powers. If two objects in distinct worlds share perfect natural properties, they both have the same causal powers involved in natural laws and thereby they do never violate natural laws.

You need to pay some attention to the issue that natural laws here are not limited to those of the actual world. There are alien natural properties that do not exist at our actual world (cf., Lewis 1986; 60). If there are alien natural properties, then there are also natural laws that do not exist in our world. Even if they are alien, their features are not different from those of familiar natural properties. It follows that possible properties that are attributed to objects by natural counterpart relations are limited to those that do not violate *possibly* natural laws. I call this kind of possibilities possibly nomological ones.

Finally, I will consider an example (4) in the light of possibly nomological possibilities. In case of (4), it depends on what angels are whether being an angel is attributed to David. Were angels abstract, David could not be an angel, because angels are not material objects and are out of natural laws. An appeal to alien natural properties does not help, because they still are materialistic properties and contribute to single out causal powers. If angels were composed of alien natural properties, then they would be material beings. This opposes the supposition that angels are immaterial.

4. Conclusion

Summing up, there are two types of counterpart relations. One type are mind-dependent and possible objects stand in these relations by their context. The other type are mind-independent: natural counterpart relations. The range of these relations is limited to that of possibly nomological possibilities. They are mind-independent, because this

type of counterpart relations re analyzed by perfect natural properties.

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NOTES

[1] In this paper, I use a term 'counterpart theory' as a sort of semantics for analyzing modal statements but 'modal realism' as an ontological thesis on possibilities and necessities.

[2] In general, if W＝W', then X ＝Y by a principle of reflexivity of counterpart relations (cf. Lewis, 1968: 114). It means that anything is the most similar to themselves at its world in almost all cases.

[3] They call this position 'class nominalism' just because friends for it deny a special entity of universal that has a power to provide deferent objects with identical feature. Armstrong (1978) rather advocates universal realism.

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