ШЕТЕЛ БАСЫЛЫМДАРЫ

James Petrik

"ENANTIOMORPHS AND KANT'S NEGLECTED ALTERNATIVE: AN ARGUMENT FOR THE NON-SPATIALITY OF THINGS IN THEMSELVES"

One of the more striking aspects of Kant's transcendental idealism is the contention that the space we experience is actually contributed to that experience by our faculty of outer sense. While it is clear both why Kant draws this conclusion and the important role this conclusion plays in answering the question of how synthetic *a priori* judgments are possible, what is less clear is why Kant believes he is entitled to make the following further claim: Things as they are in themselves – and independently of how they are experienced by us – do not and cannot have spatial properties. From the fact that the space we experience is supplied by our faculty of outer sense and not the objects that engage them it does follow that the space *we experience* is not a property of the objects themselves. Nonetheless, there would seem to remain the possibility that things in themselves partake of their own spatial relations and properties where these relations and properties are qualitatively similar to those imposed upon our experiences by our faculty of outer sense. This objection, which has come to be known as the "Problem of the Neglected Alternative," is most often associated with Adolf Trendelenberg in the mid-19th century [4], versions of it can be traced to Kant's contemporaries in the late 18th century [3, pp. 128-132].

In what follows, I will draw upon Kant's discussion of enantiomorphs in the *Prolegomena* to point the way to an argument that is unique in the secondary literature and that would allow Kant to eliminate this Neglected Alternative. Additionally, I will argue that there is textual evidence for believing that Kant himself had this argument in mind.

1. Enantiomorphs and the Transcendental Ideality of Space.

In Sections 6-12 of the *Prolegomena* [3], Kant argues for the conclusion that space and time are mere forms of sensibility by noting that this supposition is the only plausible way to account for the synthetic *a priori* judgments of mathematics. Realizing, however, that readers may nonetheless be reluctant to accept such a counterintuitive conclusion, in Section 13, Kant approaches the matter from a very different angle. He notes that those who still cannot shake the belief that space and time are properties of things in themselves can overcome this inclination by considering the geometric paradox posed by enantiomorphs. Enantiomorphs – sometimes also called "incongruent counterparts" – are chiral geometric pairs that seem to share all the same intrinsic properties and yet cannot be substituted for each other. The examples of enantiomorphs that Kant

considers are right and left hands, spherical triangles (that is, triangles inscribed on the surface of a sphere with a segment of the equator as a common base), and helices that wind in opposite directions but otherwise share all the same dimensions. The "paradox" that such enantio-morphs generate, according to Kant, is found in the fact that it is not possible to interchange one enantiomorph for its partner; yet, the following valid line of reasoning entails that it must be possible to interchange enantiomorph pairs:

i. Enantiomorph pairs share all the same intrinsic properties.

ii. If two things share all the same intrinsic properties, it must be possible to substitute one for the other.

Therefore,

iii. It must be possible to interchange one enantiomorph for its partner.

In order to appreciate fully the nature of the alleged paradox, it is worth pausing here to consider in more detail the example upon which Kant focuses – spherical triangles. We begin by noting that any intrinsic property of one of the triangles is also a property of the other triangle. For instance, the following statements apply equally to properties of both of the triangles:

The respective sides are the same length.
The interior angles have the same measure.
The areas of the two triangles are equal.

Despite this, it is not possible to substitute one of the triangles in the place of the other. Attempting to superimpose one of the triangles on the other by rotating it along its base – and through the interior of the sphere – allows for the angles to line up; however, the curvature of the sides is not the same, with the triangle that underwent the rotation now being concave and the other remaining convex with respect to an observer outside of the sphere. Attempting to superimpose one of the triangles by rotating it along the surface of the sphere allows for agreement between the respective curvatures of the two triangles; however, the angles now do not occupy the same locations. So, according to Kant, we have a paradox: a pair of geometric figures that share all the same intrinsic properties and yet are not congruent and interchangeable. (Though Kant does not specify this, it is important to note that the triangles in the example can't be equilateral and can only be isosceles if one of the two equal sides of each of the triangles falls on the equator. For equilateral triangles and isosceles triangles with the non-equal side as the common base, interchangeability is possible.)

Having posed this paradox, Kant proceeds to suggest what he believes is its proper solution:

These objects are not representations of things as they are in themselves and as some pure understanding would cognize them, but sensuous intuitions, that is, appearances, whose possibility rests upon the relation of certain things unknown in themselves to something else, viz., to our sen-sibility. Space is the form of the external intuition of this sensibility, and the internal determination of any space is possible only by the determination of its external relation to the whole of space, of which it is a part (in other words, by its relation to external sense). That is to say, the part is possible only through the whole, which is never the case with things in themselves as objects of the mere understanding, but can well be the case with mere appearances. ([3], p. 286)

The core of Kant's solution is the suggestion that the objects are appearances and not representations of things as they are in themselves; however, it is not immediately clear how the hypothesis put forward here does the work Kant claims it does. Specifically, how does the observation that enantiomorphs are appearances and not representations of things in themselves both a) solve the paradox of incongruent counterparts and b) show that space is not a property of things as they are in themselves? We will consider these questions in turn in the next section.

3. Kant's Solution to the Paradox of Incongruent Counterparts

A crucial point in answering both of the aforementioned questions is found in Kant's suggestion that "the internal determination of the any space is possible only by the determination of its external relation to the whole of space." Kant's point, it would seem, is that what reflection on enantiomorphs gets us to see is that we are mistaken in thinking that we are identifying intrinsic properties in our descriptions of each of the spherical triangles. In fact, none of the two triangles' properties are intrinsic, since a geometric figure can only exist by being mapped out against a wider region of space. To specify the nature of each triangle, we must orient it with respect to the surface of a sphere, and the sphere itself can only be defined by reference to the delimitation of some wider region of space where this wider region, in turn, is either unbounded and thus "the whole of space" or, if it is bounded, must itself be delimited against yet a wider region of space still and so on. That all of a spatial figure's properties are thus dependent upon external relations is significant for solving the paradox in that it identifies precisely where the reasoning in support of the paradox goes

wrong: the properties that the two triangles have in common are spatial properties and thus are not, after all, *intrinsic* properties. And this means that one of the claims essential to generating the paradox – chiral spherical triangles share all the same intrinsic properties – turns out to be false. The triangles do not have any truly intrinsic properties and thus do not share any intrinsic properties.

Turning now to the question of why Kant believes that this shows that things in themselves are not spatial, his argument begins by reiterating that a finite spatial object's properties are essentially relational properties; that is, an object has the spatial properties it does only in virtue of its prior relation to a wider region of space against which it is mapped out and with respect to which it is oriented. Coupling this premise with the contention that finite geometric shapes are parts of the whole of space implies that the relation between space and spatial objects is such that "the part is possible only through the whole." [3, p. 286] Kant insists, however, that this cannot be the case for things in themselves; therefore, things in themselves cannot be spatial. In recognition of the fact that the argument turns on maintaining that parts in themselves would enjoy some sort of independence from the wholes they constitute, let us call this the "Independence Argument."

Unfortunately, Kant does not further explain or defend the claim that things in themselves can't realize the modal state of having parts that are possible only through the whole of which they are parts. Neither does he explain the nature of this modal state being denied of things in themselves in more detail by specifying whether the modality is logical or metaphysical or semantic or epistemic nor why it is unproblematic for appearances to realize it. Perhaps he is supposing that the only sort of part-whole relation of dependence that can obtain among things in themselves is one of metaphysical constitution in which the existence of a whole is dependent upon its parts – in the way that a building is dependent upon its bricks or a molecule upon its atoms – and not vice versa. With this principle in place, it is clear that parts cannot be possible only through their respective wholes as far as things in themselves are considered. Moreover, the reason that appearances can exhibit a part-whole relation that reverses the order of dependence is that the part-whole relation in the case of appearances is only apparent and thus does not reflect a *real* order of dependence. What really grounds the nature and existence of the appearance of spatial objects is not any sort of real constitution relation between space as a whole and the finite spatial regions that are its parts; rather, the nature and existence of the appearance is ultimately grounded in a relation between sensibility and an unknown thing in itself by which sensibility is affected.

This is, however, speculation that goes beyond what Kant explicitly says in the *Prolegomena*. It is also problematic speculation, for it is not immediately clear how Kant might defend the key claim that things in themselves do not allow for parts that are metaphysically dependent upon the wholes of which they are parts. Indeed, possible counterexamples readily suggest themselves. A functioning human hand, for instance, is a part of a living human body; however, it is a part that is dependent on the whole in that a functioning human hand can only be what it is when it is appropriately connected to a functioning human body. Kant does, it is true, ultimately conclude that the sorts of objects used in this example are spatially extended and thus are not things as they are in themselves; however, he is not entitled to this point in an argument intended to prove precisely that conclusion.

Though the Independence Argument thus faces significant obstacles, it does include the germ of a different and more promising argument for the transcendental ideality of space. While this alternative argument does invoke the claim that all spatial properties are essentially external relations and thus shares the same starting point as the Independence Argument, it does not employ the controversial claim that things in themselves cannot have parts that are possible only through their respective wholes. Instead, it proceeds by a general analysis of the sorts of properties that can and cannot characterize things in themselves. In the following section, this argument is reconstructed and a textual case is made for believing that the argument is one that Kant himself endorsed.

4. The Externality Argument.

We begin our reconstruction of this alternative argument by noting that to characterize an object merely in terms of properties that are essentially external relations is only to characterize it as it relates to what is other. It is not to characterize the object as it is in itself. For this reason, we know that things in themselves cannot be characterized by properties that are essentially external relations. When we couple this point with the claim that spatial properties are essentially external relations – they are possible only in virtue of the object's relation to some wider region of space – it follows that spatial properties cannot characterize things as they are in themselves. Though there is not room here to provide a thorough reconstruction of this argument – which I will call the "Externality Argument" – the following outline adequately conveys its essential features:

i. If you characterize something in terms of how it relates to what is other, you are not characterizing it as it is in itself. (This premise is justified by an analysis of the concept of a thing in itself.)

ii. Things in themselves cannot be accurately characterized by external relations. (From i)

iii. The spatial properties of an object are essentially external relations. (This premise is justified by the foregoing analysis of enantiomorphs.)

iv. Things in themselves cannot be accurately characterized in terms of spatial properties. (From ii and iii)

v. Things in themselves do not have spatial properties. (From iv)

While a complete evaluation of this argument is beyond the scope of this paper, I do believe that it enjoys greater intuitive plausibility than the Inversion Argument. There is, moreover, a textual basis for attributing this argument to Kant. Though he does not explicitly advance the Externality Argument in the *Prolegomena*, we do find the following passage in his *Critique of Pure Reason* that advances a concise version of it.

Now a thing in itself cannot be known through mere relations; and we may   therefore conclude that since outer sense gives us nothing but mere relations, this sense can contain in its representation only the relation of   an object to the subject, and not the inner properties of the object in itself.   [2, B67]

5. Conclusion

In the foregoing, we have seen that Kant's solution to the Paradox of Incongruent counterparts provides the basis for a promising argument showing that space is not a property of things in themselves. Additionally, we noted that it is an argument that Kant himself endorses in a brief passage in the *Critique of Pure Reason*. It turns out, then, that the Neglected Alternative is not so neglected by Kant after all.

_____

1. Allison, Henry E. Kant's Transcendental Idealism: An Interpretation and Defense, revised and enlarged edition (New Haven, CT: Yale University Press, 2004).

2. Kant, Immanuel. Critique of Pure Reason, translated by Norman Kemp Smith (New York, NY: MacMillan, 2007).

3. Kant, Immanuel. Prolegomena to Any Future Metaphysics, 2nd edition, translated by James W. Ellington (Indianapolis, IN: Hackett Publishing, Inc., 2002).

4. Trendelenberg, Adolf. Logische Untersuchungen (Leipzig: Hinzel, 1862).

* * *

Мақалада автор Кант филthpresent философиясын (Neglected Alternative) қарастырады.

* * *

В статье автор рассматривает философию Канта (Neglected Alternative).

WANG Jianxin

MUSLIMS AND ISLAMIC CULTURE IN JAPAN: A FIELD REPORT

1. Introduction

Just in recent years, academic researchers in Japan began to pay attention to Muslim society and Islamic culture in their own country, and regard Islam as an important, inseparable part of their religious tradition. However, Islam is still a very young religion comparing with other religious traditions in Japan. It became a part of Japanese religious tradition just from the end of Meiji period, and its influences have expanded very slowly in Japanese population. Even nowadays, it is still hard to say that Islam has strong influence as a religious tradition and its existence easy to be identified in Japan.

Now we are facing two problems in this academic production. Muslim population in Japan is very small, and it has no concentrated living area but scatters among non-Muslim Japanese population. Such conditions of Muslim distribution bring about the first problem, that studies on Muslims and Islamic culture in Japan cannot be undertaken at regional or community levels. The second problem is, That it is even hard to say Muslims in Japan have their own folk traditions such as Muslims do in other Asian countries.

For the purpose of making clear the present conditions of Muslim population in the urban area of Japan, I conducted a research in the Tokyo