

Space in the Transcendental Aesthetic

PHIL 871

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1 The Two-Stem Theory of Cognition

1.1 Powers of the Mind¹

Receptivity: Power of the mind to receive representations via affection from something distinct from itself

Spontaneity: Power of the mind to generate representations from itself without any external influence

1.2 The Faculties

Sensibility: passive/receptive; sensory intuitions arise from the affection of sensibility by objects^{2,3}

Understanding: active/spontaneous; conceptual judgments arise via discursive acts of the understanding⁴

Reason: active/spontaneous; forms inferences based on judgments given to it by the understanding

Objective representation: A conscious representation of a mind-independent feature of (empirical) reality⁵

Cognition [Erkenntnis]: An objective representation, generated by the cooperation of both faculties, which may “conform with its object” (A58/B83)—i.e. be truth-apt

1.3 Three Kinds of Representation (A320/B376-7)

Sensation: A perception “which relates to the subject merely as a modification of its state”

Intuition: An objective representation which “relates immediately to the object and is singular”

Concept: An objective representation which is a “mediate [relation to an object], via a mark, which can be common to many things”

1.4 The Independence of the Stems

- The two stems of cognition play different functional roles with respect to cognition⁶
- The status of intuition as a form of (objective) representation independent of the understanding is unclear

¹ Our cognition arises from two basic sources of the mind, of which the first is to receive the representations (the receptivity of impressions), the second the faculty of cognizing an object through these representations (spontaneity of concepts); through the first an object is given to us, through the second it is thought in relation to that representation (as mere determination of the mind). (A50/B74)

² Objects are given to us by means of sensibility, and it alone yields us intuitions; they are thought through the understanding, and from the understanding arise concepts (A19/B33)

³ That representation which can be given prior to all thinking is called intuition (B132)

⁴ Our nature is so constituted that our intuition can never be other than sensible; that is, it contains only the mode in which we are affected by objects. The faculty, on the other hand, which enables us to think the object of sensible intuition is the understanding. To neither of these powers may a preference be given over the other. Without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuitions without concepts are blind (A51/B75)

⁵ The genus is representation in general (*representatio*). Under it stands the representation with consciousness (*perceptio*). A perception that refers to the subject as a modification of its state is a sensation (*sensatio*); an objective perception is a cognition (*cognitio*). The latter is either an intuition or a concept (A320/B377)

⁶ Objects are given to us by means of sensibility, and it alone yields us intuitions; they are thought through the understanding, and from the understanding arise concepts (A19/B33).

- Intellectualism: All objective representation depends on an act of the understanding
- Sensibilism: Some objective representations do not depend on acts of the understanding

2 The Problem with Space

- What is space?

Absolutism: Space is a self-subsisting entity, independent of the objects that exist in it, and in which all existing things are ‘contained’

Relationalism: Space is the order of possible relations which hold between independently existing entities

3 Kant’s Argument

- Kant argues that neither the absolutist nor the relationalist is correct — space is not real but rather a ‘form of intuition’

3.1 The Metaphysical Exposition⁷

- Three questions about space:⁸
 1. Ontological: what is space?
 2. Epistemological: what is the status of justification for beliefs concerning space?
 3. Psychological: what is the origin of (the content of) the representation of space?
- Four arguments concerning the status of the *representation* of space and the justification for beliefs in which it figures (i.e. questions 2 & 3)
 - 1 & 2: the representation of space is *a priori*
 - 3 & 4: the representation of space is non-conceptual (i.e. intuitive)

3.2 The Transcendental Exposition⁹

- The ‘Argument from Geometry’¹⁰
 - Is the argument an *additional* argument for the conclusion that the representation of space is *a priori* and intuitive?
 - Does the argument start from the conclusion of the ME and argue for something else?

⁷ I understand by **exposition** (*expositio*) the distinct (even if not complete) representation of that which belongs to a concept; but the exposition is *metaphysical* when it contains that which exhibits the concept **as given a priori**. (A23/B38)

⁸ Now what are space and time? Are they actual entities? Are they only determinations or relations of things, yet ones that would pertain to them even if they were not intuited, or are they relations that only attach to the form of intuition alone, and thus to the subjective constitution of our mind, without which these predicates could not be ascribed to any thing at all? (B37-8)

⁹ I understand by a **transcendental exposition** the explanation of a concept as a principle from which insight into the possibility of other synthetic *a priori* cognitions can be gained.

¹⁰ Geometry is a science that determines the properties of space synthetically and yet *a priori*. What then must the representation of space be for such a cognition of it to be possible? It must originally be intuition; for from a mere concept no propositions can be drawn that go beyond the concept, which, however, happens in geometry (Introduction V). But this intuition must be encountered in us *a priori*, i.e., prior to all perception of an object, thus it must be pure, not empirical intuition. For geometrical propositions are all apodictic, i.e., combined with consciousness of their necessity, e.g., space has only three dimensions; but such propositions cannot be empirical or judgments of experience, nor inferred from them (Introduction II). (B41)

THE STANDARD INTERPRETATION:

1. We have synthetic a priori cognition of Euclidean geometry Or: Euclidean geometry is necessarily true
 2. Such cognition is possible only if space is a pure intuition Or: pure intuition of space is a necessary condition of our synthetic a priori cognition of geometry
 3. \therefore Space is a pure intuition.
- Problems:
 - Goes against supposedly ‘synthetic’ method of the CPR
 - Is obviously unsound (viz. premise (1))

SHABEL’S ALTERNATIVE:¹¹

1. The representation of space is a pure a priori intuition (from the ME).
2. From the pure a priori representation of space we can derive synthetic a priori propositions concerning the structure of space
3. Geometry is the science of synthetic a priori propositions concerning the structure of space
 - We need an explanation of (a) the a priori representation of space as an object and (b) the status of the propositions of geometry as synthetic rather than analytic.
4. Since (according to the ME) the representation of space is a priori, we know that the geometer’s representation of its properties is likewise a priori.
5. Since (according to the ME) the representation of space is originally an intuition, we know that the status of propositions concerning the nature of space is ultimately synthetic.
6. \therefore From the pure a priori representation of space we can derive and explain the synthetic a priori propositions of geometry — geometric cognition depends on the representation of space understood in the terms set out in the ME.

3.3 *The Ideality of Space*

- Two conclusions:
 - i. The representation of space represents nothing (and no property of anything) as it is in itself (A26/B42)
 - ii. Space (and time) is nothing other than the ‘form’ in which ‘outer’ things are represented (A26/B42)

¹¹ The “argument from geometry” does not analyze geometric cognition in order to establish that we have a pure intuition of space. Rather, the “argument from geometry” establishes that geometric cognition itself develops out of a pure intuition of space. The difference is subtle, but important: on the standard reading, our actual knowledge of geometry is traced to its source—namely, a pure intuition of space—in order to show that we must, therefore, have such a pure intuition. On my reading, our pure intuition of space is offered as both the actual source of our cognition of the first principles of geometry and the means for the production of further cognition based thereon (Shabel (2004), 196)

Transcendental Idealism: No thing as it is in itself appears in space and time¹²

ALLAIS' INTERPRETATION:

1. Intuition necessarily involves the presentation of an object¹³
2. We have an a priori intuition of space (and time)
3. A priori intuition cannot, by definition, involve the presence of an actual object¹⁴
4. ∴ Space is nothing other than a 'pure' a priori intuition

3.4 In What Sense 'Ideal'?

- Two schools of interpretation
 - 'One world': There is one set of objects, some of whose properties are mind-dependent
 - 'Two worlds': There are two sets of objects, one of which is mind-dependent

3.5 Incongruent Counterparts

- Three different uses of the argument
 - 1768: Space is Newtonian rather than Leibnizian
 1. Incongruent counterparts like left and right hands are intrinsically exactly similar
 2. Exactly similar counterparts are nevertheless differently 'oriented'
 3. ∴ Orientation of objects in space cannot be due to their 'internal' intrinsic, non-relational features, but must rather be due to something else—viz. their relation to some absolute space which contains them.
 - 1770: Space is intuitively not conceptually represented
 1. If representation of spatial relations were purely conceptual then we should be able to conceptually distinguish incongruent counterparts
 2. Since incongruent counterparts are qualitatively identical, there is no conceptual means of differentiating them
 3. ∴ The fundamental representational type by which we distinguish spatial orientation is intuitive not conceptual
 - 1783: Space is transcendently ideal
 - * Not obvious how Kant's argument is meant to establish *ideality* of space

¹² I understand by the **transcendental idealism** of all appearances the doctrine that they are all together to be regarded as mere representations and not as things in themselves, and accordingly that space and time are only sensible forms of our intuition, but not determinations given for themselves or conditions of objects as things in themselves. To this idealism is opposed **transcendental realism**, which regards space and time as something given in themselves (independent of our sensibility). The transcendental realist therefore represents outer appearances (if their reality is conceded) as things in themselves, which would exist independently of us and our sensibility and thus would also be outside us according to pure concepts of the understanding. (A369)

¹³ How is it possible to intuit something *a priori*? An intuition is a representation of the sort which would depend immediately on the presence of an object. It therefore seems impossible originally to intuit *a priori*, since then the intuition would have to occur without an object being present, either previously or now, to which it could relate, and so it could not be an intuition. *Prolegomena*, 4:281-2.

¹⁴ How can an outer intuition inhabit the mind that precedes the objects themselves? Obviously not otherwise than insofar as it has its seat merely in the subject, as its formal constitution for being affected by objects and thereby acquiring immediate representation, i.e., intuition of them, thus only as the form of outer sense in general (B41).

VAN CLEVE'S INTERPRETATION:¹⁵

1. Incongruent counterparts are different in virtue of their differing relations to space as a whole.
 2. All relations among things in themselves are reducible to the nonrelational qualities of the relata.
 3. Therefore, if space and figures within it are things in themselves, one incongruent counterpart must differ internally from the other.
 4. But, in fact, the counterparts do not differ internally.
 5. Therefore, space itself and incongruent counterpart figures within it are not things in themselves.
- Two objections to (2)
 - i. Kant didn't obviously endorse the reducibility of all relations to intrinsic properties of things
 - ii. The reducibility premise makes advertance to incongruent counterparts unnecessary¹⁶

Further References

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¹⁵ Van Cleve (1999), 47.

¹⁶ once armed with the reducibility principle, Kant need not have resorted to anything so recondite as incongruent counterparts to make his point, for spatial relations quite generally fail to be reducible (or "internal," in one leading sense of that term). Take, for example, the relation of distance: there is nothing about my pen and my ruler taken separately that would enable anyone to deduce that they are now six inches apart. So, Kant could simply have argued thus: all relations among things in themselves are reducible; distance is not a reducible relation; therefore, nothing in the field of the distant-from relation (which is to say, nothing in space) is a thing in itself. (Van Cleve (1999), 48)

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