

In part one of his landmark work, *The Critique of Pure Reason*, German philosopher Immanuel Kant investigates the process by which humans come to form mental representations of external objects: what he refers to as “empirical intuitions.” Against this backdrop, Kant develops a radical theory of space that rejects the conventional view of space as an objective feature of our empirical reality. Instead, Kant argues that space is a subjective *form of intuition* that is a necessary precondition for our experience of the external world, but that does not itself exist within it. That is, our empirical perceptions are actively structured and organized by an a-priori representation of space that is merely a part of the subjective constitution of our minds and not derived from any experience. In this essay I examine Kant's argument for space as a form of intuition and the implications it has for his understanding of human cognition.

Sensibility: Intuition and Form

In order to properly articulate Kant's attribution of space as a form of intuition, I must first clarify what this means in Kant's broader theory of knowledge. Kant's theory of cognition distinguishes between two fundamental faculties of the mind: sensibility and understanding. The former refers to the process by which we receive mental representations of objects and the latter the process by which we systematically organize these sense impressions in a manner that allows us to think, reason, and make judgments. In this framework, intuitions are the immediate, unmediated representations of objects provided by sensibility, while discursive concepts are the product of an activity of understanding that “connects or separates these representations” (A1/B2). In a word, sensibility, operating through discrete intuitions, represents our capacity to

be affected by objects and provides the material for thought. On the other hand, understanding provides us with the capacity to think about objects through the ordering of intuitions into concepts.

At the beginning of the Transcendental Aesthetic, Kant advocates for a hylomorphic theory of (empirical) sensibility. That is, the process of being affected by an external object (“appearance”) involves the interaction between form and matter. Kant contends that “whatever in an appearance corresponds to sensation¹ [is] matter” and the form is what “brings about the fact that the manifold of the appearance can be ordered in certain relations.” Put briefly, the idea here is that whatever in an object has the ability to affect us must be different from the cognitive faculty that is used to structure this raw data into a coherent, single representation. Kant offers a single sentence to justify this view: “that in which alone sensations can be ordered and put into a certain form cannot itself be sensation again” (A20/B35). For example, the “manifold” of the appearance of a lemon might include various sensory components related to the object’s color, smell, and texture. Since each of these sensory components can be experienced independently without any necessary connection to one another, it must be the work of some formal property of sensibility that orders these sensations, presenting their matter as part of a single appearance.

Space as a Form of Intuition

In Kant’s metaphysical exposition of space, he defines space as a “pure form of sensible intuition” (A21/B35); It is pure in the sense that it is not a product of empirical experience, and a “form” in the sense that it structures sensibility in the manner previously described. Moreover, it

¹ While sensibility is our faculty to be affected by an object, sensation refers to the effect of the object.

is an intuition in-and-of-itself, and therefore can more concisely be defined as a “pure intuition.”

As we will see these characteristics are inextricably linked and simultaneously defended in the first four arguments of Kant’s Transcendental Aesthetic.

Kant begins his metaphysical exposition of space with the observation that through “certain sensations” “we present objects as outside us, and present them one and all in space” (A23/B38). That is, our empirical sensations concern objects that are external to us and they are intuited in a manner that is necessarily spatially determinate; we intuit these objects as occupying distinct spatial positions from ourselves and from each other. From this observation, Kant argues that it must logically follow that an a-priori representation of space itself is necessary for the possibility of empirical representation of spatial relations. This grounding relationship is perhaps best clarified through use of analogy: One might argue that it would be impossible to (correctly) interpret the relation of puzzle pieces to each other without some preceding representation of the finished puzzle. Kant further supports the a-priori status of space through a second argument detailing the asymmetry between a representation of space and spatial relations. As Kant expounds upon in argument two, while we can possess representations void of spatial relations (e.g, a representation of space without objects), we can never possess a representation void of space itself. This illustration aims to invalidate the notion that the representation of space might be derived simultaneously from spatial relations. On the contrary, without an a-priori representation of space, we would not be able to form intuitions of spatial relations.

Having established that a representation of space is a-priori and a constituent of all outer intuition, Kant concludes that “space is a condition for the possibility of appearances”

(A24/B39). Accordingly, space can thereby be understood as a *form of intuition*; empirical data obtained from the senses are organized by this a-priori representation of space into coherent intuition. Furthermore, since space is not derived from, but a precondition for empirical experience, it follows that it is merely a “subjective condition of sensibility” (A26/B42); it is intimately tied to our perceptual capacities and has no meaning outside of its formal properties. This conclusion highlights Kant’s hylomorphic conception of sensibility through the idea that the mind plays an active role in constructing and organizing matter into coherent intuition. The representation of space is not something that is passively received from the external world, but rather a necessary component of our subjective experience of it.

Kant’s third and fourth arguments within the metaphysical exposition assert that our representation of space is an intuition, not a concept. He does so by highlighting two distinguishing features of space that eliminate the possibility of it being a conceptual representation: space is not discursive and would require an infinite intension if it were to be a concept. Kant motivates the first argument in his contention that “we only present one space” (A25/B40). While for conventional concepts, such as “human,” we might possess many representations that fall under this concept (e.g, Donald Trump and Joe Biden), the same cannot be said for space which is necessarily unitary. In fact, when we speak of different instances of space, we are in actuality referring to “only parts of one and the same unique space” (A25/B40). This has a secondary consequence: space cannot be inferred from its constituents as we might expect from a regular concept, but its constituents (i.e, segments of space) are grounded in the singular representation. Put differently, while a concept in the aforementioned Kantian sense is derived from pattern recognition amongst exposure to many similar representations, this is not

possible for space which only has one representation of infinite magnitude. In the fourth argument, Kant further elaborates on these notions of spatial constituents and magnitude to make a separate argument against the conceptual nature of space. According to Kant, space's "infinite given magnitude" implies an infinite number of spatial constituents *within* the single representation of space. While a concept may contain an infinite extension, or number of potential representations under it (e.g, there *could be* an infinite number of different representations of a sandwich), no concept contains a simultaneous and infinite intension in the manner that space has. In a word, infinity is in space, not under it. This distinction between space as a concept and intuition is important for Kant's understanding of its formal properties; since concepts merely classify mental representations after the fact, space as a concept could not play its integral role of structuring matter within the process of sensibility as Kant aims.

In conclusion, Kant's first arguments detailed in the Transcendental Aesthetic offer a metaphysical justification for a formal property of sensibility and attribute this role to a representation of space in virtue of its necessity to ground empirical intuition. These claims are fundamental in Kant's later arguments for the transcendental nature of space and time.