

# **Subsumption Via Application: Interpreting Kant's Schemata through Distinguishing the Usage of "Subsumption" and "Application"**

Annis Gong

## **Abstract**

This essay focuses on Kant's use of the phrase "subsumption and application," which I interpret as grounding his explanation of the schematism chapter. Interpreting the schema as a creative structure, I view the process of subsumption as one of creating homogeneous ties between various concepts, while the process of application is merely one of establishing logical connections.

Kant begins the Critique of Pure Reason by questioning his readers how a synthetic *a priori* judgement is possible in a world where all our knowledge begins with experience. To answer this question, he dives into human understanding, first the sensibility, then the faculty of reason. Within human reason, he meets the schemata, the condition of the possibility of judgement, which sets the table for our understanding to partake in judgement. In this essay, I plan first to explore schematism's importance to Kant's project, then summarize the points he makes in the chapter regarding the schemata. Afterward, I will work through the reconstruction of the Schematism chapter by Michael Pendlebury. At the very end, state my opinion regarding the two-synthesis interpretation and Kant's ambiguous usage of the phrase homogeneous.

As the project presented concerns the possibility of synthetic *a priori* judgement, it is necessary for Kant to clearly outline what these judgements are. Synthetic judgement contrasts with analytic judgement. Unlike analytic judgement, synthetic judgement brings forth new information instead of deepening existing ones. Analytic judgement analyses an object, studying it to reveal something self-contained within the subject. Synthetic judgement pulls from sources outside of the subject, connecting them and synthesizing information that is not self-evident in the subject.

An *a priori* judgement contrasts with a *posteriori* judgement. In an *a priori* judgement, the judgement results in a statement that consists of universal and necessary truth, such as the phrase "all circles are round." In contrast, a *posteriori* judgement calls to mind previous experiences, such as judging that the school's library will be empty by the Friday of finals week. This sort of judgement relies on empirical experiences. This reliance on the empirical brings contingency into the judgement since there are no reasons to believe that the future will resemble the past. For example, the school could host a fantastic party in the library to celebrate the end of the semester, and the library would be anywhere from empty. At first sight, *a priori* judgement seems to conflict with synthetic judgement, for how can something that relies on experience be *a priori*? Before Kant, David Hume initiated this sort of doubt. He claimed that it is impossible to identify universal truth merely from experience, threatening to throw metaphysics over the deck into scepticism.

As Kant's project considers how a judgement that is both synthetic and *a priori* possible, he needed a connecting intermediate between the two seemingly incompatible subjects, one being sensible and the other pure in its nature.

Within the understanding, we find the categories, which are "pure concepts of the understanding which apply *a priori* to objects and intuitions in general" (A74-75). However, it is not at all obvious at first how these concepts can be applied to objects of intuition in general. After all, these concepts are pure, while the empirical intuitions lack this form of purity. If it cannot be made clear how these categories relate to the intuitions, these concepts would altogether be rendered empty, as they cannot be applied to empirical objects. The categories arose in the same manner as the forms of judgement, having abstracted all content of a judgement and considering only the forms, the intuition must relate to it via the application of judging.

The intuitions must be submerged under the categories for the categories to be related to intuitions and make synthetic *a priori* judgement possible. However, due to the differences between intuitions and pure concepts, it is impossible for them to be directly submerged in such a manner. The categories are

pure concepts with universality and necessity, while the intuitions simply do not have these characteristics. To solve this issue of homogeneity or the lack thereof between intuition and categories of judgment, Kant introduces: *The Schema*.

Schemata function as an intermediate, connecting pure concepts and empirical intuitions. On one side of it, it is transcendental, connecting to the categories. On the other side, it connects to empirical intuitions. This way, the submergence of intuitions under the categories becomes possible so long as the schema mediates it.

After introducing the schema, which seemingly solves the connective tissue between the intuitions and the pure categories, Kant reveals that the transcendental intermediary of the representation is time. On one hand, time is a priori since it is a “formal condition of the manifold of inner sense” (B 175) and thus homogeneous with the transcendental end of the categories. On the other hand, time as a formal condition is contained in every empirical representation and therefore homogeneous with appearance. This combination of being both involved in experiences and the a priori formal conditions allows time to function as an intermediate between the intuitions and the categories. Kant claims that this intermediate will allow the intuitions to be submerged under the pure categories.

After examining how it is possible to subsume the intuitions under the categories, Kant continues to introduce the sensible and transcendental schema.

Kant refers to the schema of a sensible concept as “the representation of a general procedure of the imagination for providing a concept with its image” (B 180). The schema functions as a rule that first makes images possible, which is always in connection with the concept associated with the schema. Therefore, it is not surprising that after this introduction, Kant proceeds to reveal that “it is not images but schemata that grounds our pure sensible concepts.” (B 180) As images are always about particulars, the concept contains generality within them that distinguishes the two. Take, for example, the concept of a cat. If the concept of cats can be narrowed down to a fluffy creature that meows in abstraction, it is impossible to find a particular cat that can perfectly represent this concept in general. There are no particular cats in the world that don’t come with more particular characteristics than the general definition of cats. A similar example is given with triangles, as no triangle in the world contains only the generalized definition of an abstract triangle. Instead, each triangle’s peculiar shape is unique and limited, removing it far from abstraction. As the concept contains this far-reaching generality, it is unable to subsume the particulars. Thus, Kant claims that this burden of subsuming intuitions must rest upon the schema.

After an image is made and intuitions subsumed under the empirical concept, the work of the transcendental schema comes into play. The schema of the pure concept of understanding is a transcendental product of the imagination. Along with the determination of inner sense, time, the transcendental schema functions as a pure synthesis that collects and forms a unity in apperception. (B181) The transcendental schema takes the manifold of instances of images and, through the Transcendental Synthesis of the Imagination, submerges them under the categories. This allows the categories to be applied to the intuitions despite the lack of homogeneous content between the two. At this point, the synthesized intuition becomes bounded by certain determinations of time (as an inner sense), which allows one to fully judge its content. For example, it is only through the transcendental synthesis by the schema that a group of intuitions can accurately be termed a being, since a being needs to be in time.

## Answering the Skeptical Doubt

Although Kant claims that he has *no taste* to pause for the *dry and boring analysis* of the transcendental schema, its function is important in defending against Hume's skeptical claim: "But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar; except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe, that it will exist." (Hume, First Enquiry, The Idea of Necessary Connection). Whereas Hume believes that the concept of necessity comes to be through witnessing multiple instances of the same event and is formed through inductive reasoning, Kant claims that in order to accurately represent the event, the schema of causality must have already subsumed the intuitions under itself. In the transcendental synthesis, they acquire content appropriate to their causal relation, and this acquired content allows them to be subsumed under the categories and thus accurately represented. Through the transcendental schema, Kant can establish the objective validity of the intuitions by subsuming them under the category of substance, returning Hume's ship of skepticism safely to the landing dock.

### Pendlebury's Reconstruction

The Reconstruction of Pendlebury focuses on the sensible schema, forwarding the account that it is pre-conceptual and how the function of the transcendental schema. Before considering the schemata, he first points out Kant's problematic usage of the phrase subsumption due to the lack of homogeneity between intuition and pure categories, then turns to question why it is necessary to introduce a schema for intuitions to be subsumed under a sensible concept.

### Regarding Schema and Homogeneity

The first issue that comes under questioning is Kant's usage of the phrase "subsumption". Kant is committed to the idea that subsumption requires the two connecting subjects to have shared content. However, under this claim, raw intuitions can never be subsumed under pure concepts. Kant's introduction of an intermediate does not seem to solve this issue. Even if both the intuition and the categories should share commonality with the intermediate, their content remains distinct from each other. Pendlebury picks up on this logical issue and begins to question Kant's usage of the phrase "subsumption":

How can it possibly help to introduce a third representation between a category and an intuition that it is supposed to subsume? For even if C and R are to some extent homogeneous in the sense that they share some of their content, and R and I are likewise partly homogenous in the same sense, it still does not follow that C subsumes I. (Pg 782)

As Kant is certain that no homogenous content is shared between the empirical intuitions and the transcendental schema, it seems impossible that any intermediate should be successful in aiding the

subsumption of one under another by virtue of sharing content with both sides. After all, the two are still unfamiliar with each other.

However, Pendlebury notes that if one were to abandon this talk of homogeneity and consider Kant's insistence on subsumption only a kind of logical connection between intuition and the concept, the question regarding why Kant feels the necessity to introduce the schema arises. After all, it is plausible that a concept should have this ability to recognize and classify various sorts of intuitions by itself. There doesn't seem to be an obvious reason why this function of recognizing the intuitions should be exclusive to the schema.

### The Pre-conceptual Argument

To ease the tension revolving around why schema is necessary, Pendlebury referred to the chapter "Postulates of Empirical Thought in General", claiming that the passage hides the key to making sense of schematism:

...the formative synthesis through which we construct a triangle in imagination is precisely the same as that which we exercise in the apprehension of an appearance, in making for ourselves an empirical concept of it...(A224=B271)

As it is previously suggested that the schema embodies the ability to construct a triangle (in general) in the imagination, the statement indicates that this ability to synthesize images is the same as the process of recognizing appearance and the making of an empirical concept. This reading indicates that the schema aids in the production of a concept and therefore exists before a concept. This pre-conceptual reading of the schema answers the question of why Kant feels the need to introduce the schema. After all, if schema takes an essential role in the production of concepts, their function becomes much richer than merely subsumption.

After solving the issue of why it is necessary to introduce the schema, Pendlebury turns to analyze the Schema's ability to recognize the intuitions and eventually subsume the intuitions under the categories. In understanding the schema's ability to form a concept, he notes that the schema is capable of grouping intuitions together:

Taken in itself, an intuition (i.e., an "undetermined" intuition) is a bare sensation that is totally bereft of content or meaning. Its having any element of content (or being determined) is not an intrinsic property of the intuition, but is, at least in part, a matter of its being grouped with other intuitions (both actual and possible) that share the same content... (Pg 785)

Therefore, if the determined intuitions that are situated under certain concepts can be classified by this concept, it is not by the content of the "undetermined intuitions" that they are classified in this manner.

Pendlebury then proceeds to extract three major points connected with this subject: the act of grouping is not based upon previously existing content, the groupings are not given in intuition, and the

intrinsic property possessed by intuitions does not explain (not on their own) why these intuitions have the content they hold. (Pg 785-786)

From deliberating on the formative relationship between schema and empirical concept, Pendlebury becomes convinced that the schema of the sensible concept must be pre-conceptual. This addition of new considerations found by understanding how the groupings of the intuitions are made helps present the idea that intuition's groupings are made, like a sort of spontaneous synthesis.

### The Transcendental Schema

After establishing that there is first the spontaneous synthesis, where the schema is responsible for, the identification synthesis comes afterward. The pure synthesis of the imagination, according to Pendlebury, involves an identification synthesis, where one unifies a group of distinct intuitions to a single underlying subject.<sup>1</sup> Pendlebury suggests that Kant's remark about the difference between a triangle and a dog is a lot more significant than what he expressed. In considering the difference between the schema of a triangle and the schema of a dog, Pendlebury notes that the schema for a triangle lacks the kind of transcendental synthesis that the schema of a dog contains:

Nothing like this applies to triangles, for any intuition that represents something as maximally like a triangle thereby represents a triangle. Thus,... something which appears to be a triangle is one even if it is an instantaneous entity.” (pg 790)

This difference between the triangle and the dog is caused by the difference between one being a substance and the other merely a representation. While subsuming the intuitions of a dog under the concept of Dog, one is also subsuming them under a subgroup of the substance categories, where time is bound up along with the concept. A substance has permanence in its existence since none would refer to something that comes in and out of existence as a substance<sup>2</sup>. On the other hand, a triangle does not have “permanence” bound to it. A triangle is a set of qualities that identifies a certain geometric shape as its own kind. If an instantaneous intuition satisfies the requirement to be identified as a triangle, none should dispute it as a triangle. At most, they should sigh about its short-lived life. The transcendental schema is unique to the categories, where temporal qualities guide them in bringing objective reality to intuition by unifying a group of them to perceive a persistent object.

---

<sup>1</sup> In regards to the category of substance

<sup>2</sup> Perhaps in affirmation, I noticed that similar thoughts were expressed in the analogies.

## My Thoughts

In my analysis of the schemata chapters and the reconstruction, I will focus on the schema of the sensible concept, the pre-conceptual argument, and its function in aiding the subsumption of intuitions under a concept. In particular, I focus on the reconstruction of why it is necessary to introduce the schema of the sensible concept in order to step towards understanding the true function of the hidden art.

### The Hidden Art

In general, I find argument that schema is pre-conceptual and responsible for a formative synthesis more appealing. The lamented sentence: “hidden art within the depth of the human soul” defies interpretation, as it seems so strangely out of place given the context.<sup>3</sup> Literarily, it almost reads like an admission of defeat in a crucially important aspect of the project. However, this sentence is clearly not supposed to give such an impression, as the Critique of Pure Reason runs on for a few hundred more pages.

This invites me to interpret this notorious sentence as one that signals the pre-consciousness of schematism to the reader. The simplest thought experiment yields that it is nearly impossible to bring to mind the schema of a concept, which Kant admits:

...if I only think a number in general, which could be five or a hundred, this thinking is more the representation of a method for representing a multitude in accordance with a certain concept than the image itself, which in this case I could survey and compare with the concept only with difficulty. (B 179)

Although I agree that schemata are more likely pre-conceptual, I am hesitant to agree with one aspect of Pendlebury's argument. Pendlebury's argument is very straightforward: because the schemata don't involve a number of the characteristic features of concepts, it is likely pre-conceptual. The argument that because the schema is not involved with the conscious activity of judgment unlike concept and therefore it is more primitive does not seem intuitive. While convincing, it is difficult to rule out the possibility that a post-concept idea lacks the characteristics of a concept due to the nature of this “hidden art”.

### About Subsumption

Despite the ambiguity of the text, the pre-conceptual argument is more convincing to me, since it seems to be a plausible method in which one can attempt to interpret Kant's usage of the phrase subsumption.

Pendlebury points out that Kant's commitment to the lack of homogenous content between the pure categories and the intuitions meant that, regardless of a connecting intermediate, it is impossible to

---

<sup>3</sup> This remark around the literary positioning is one that Pendlebury also noted, though particularly in the context of the discussion revolving around the schema of dog.



subsume the latter under the former. Despite this rather obvious flaw, Kant continues to use the phrase “subsumption” seemingly interchangeably with the phrase “application”.

Pendlebury notes that certain reading takes the relationship supplied by the schema as one of mere logical connection, which gives up entirely on the idea of subsumption via homogeneity. However, he then notes that Kant likely does not wish to indicate that the schema merely produces a logical connection between the intuitions and the categories, but a categorical subsumption where similar content is shared between the intuitions and the concept. However, it is admitted that there is no homogenous content between the two concepts to begin with.

As it seems impossible to appropriate the usage of “subsumption” as either categorical or merely logical, Pendlebury claims that “Kant does not stick to his first proposal on transcendental schemata”(782). Given the shortness of the chapter on schematism and Kant’s various ambiguous statements about the schemata, I find this reading rather unsatisfying.

Although Kant abandons the phrase homogenous in his characterization of the schemata in B 179, one should not take this as an indication that subsumption through homogeneity is abandoned altogether. Under the premise that the two synthesis interpretations are true, a hypothesis could be taken that Kant had never meant to subsume the raw intuitions under the pure categories. If the schemata actually aim to undergo active identificatory synthesis, form groupings of intuitions a certain formative synthesis that adds content to the groups of intuitions, then the newly determined groupings of intuitions are now capable of being subsumed under the concept. This interpretation is based on Kant’s change in terminology at B177. After posing the question “How is the **subsumption** of the latter under the former, thus the **application** of the category to appearances possible...” Kant switches to describe the third thing that functions as intermediate “...make possible the **application** of the former to the latter.”<sup>4</sup> The alternate terminology hints at a different treatment of subsumption versus application.

If it is plausible to claim that Kant distinguishes between the phrase subsumption and application, then it is not unlikely that the difference between the two usage is one about referring to the subject that which it is applied. Subsumption refers to the determined intuitions, where certain groupings and identificatory synthesis have already taken place and homogenous content is inserted between these intuitions and the categories. Application refers to the relationship between the raw intuitions and the categories, where it is impossible to establish a categorical subsumption, but possible to build a logical connection between them through the determined intuitions. This also answers the question of why schema is necessary since its action is one of a formative synthesis. Without its synthetic quality, neither subsumption nor application of the categories to the intuitions is possible. Hence, schematism is essential to this section of the *Critique*.

Suppose the distinction between the phrase subsumption and application is useful. In this case, it supports the pre-conceptual reading by claiming the schema is responsible for the synthesis that grounds the empirical concepts.

---

<sup>4</sup> A similar instance also takes place a few lines after posing the question, “To show the possibility of applying pure concept of the understanding to appearances in general” (B 177) This change of terminology within the same paragraph that serves to answer the question revolving subsumption makes the claim more plausible. Not to mention the clause immediately after the “how is the subsumption of the latter under the former, thus...”



### The Necessity of Schema

Although I find the pre-conceptual reading of the schema of the sensible concept convincing, I don't think this fully answers the question of why Kant feels the need to introduce the schema. The schema indeed becomes necessary as a precondition to obtain the concept, yet this does not explain why the concept cannot be applied directly to the intuitions. In other words, as a product of the imagination, what is so different regarding the schema from the concept itself that the concept cannot function to subsume intuition? Of course, this enters into the territory that Kant claims is a "hidden art in the depth of the human soul," and the vagueness of the chapter does little to assist one's understanding. Much of the following is mere speculation to uncover the veil of the sensible schema, though admittedly with much difficulty.

A problem arises when one reconsiders the requirement for subsumption. If one desires the intuition to subsume under the pure concept of the understanding, it is necessary for the category to subsume the empirical concept and for the empirical concept to subsume the determined intuitions. Otherwise, the subsumption is not a categorical one. In referring to Kant's opening line for the chapter on schematism, it is clear how devoted Kant is to the idea of homogeneity, in the strict sense of containing similar content that one can be categorized under another, in subsumption:

In all subsumptions of an object under a concept, the representations of the former must be homogeneous with the latter, i.e., the concept must contain what is represented in the object that is to be subsumed under it, for that is just what is meant by the expression "an object is contained under a concept."

With this requirement of homogeneity in mind, the subsumption of intuition under sensible concepts becomes suspicious. In the treatment of the transcendental schema, an intermediate that is homogenous on both ends helps mediate this subsumption, yet for the sensible concepts, where the particular intuitions can never obtain the generality of the concept, no such intermediate is mentioned. Given the suspicious description of the concept of a dog as "a rule in accordance with which my imagination can specify the shape of a four-footed animal in general, without being restricted to any single particular shape that experience offers me or any possible images that I can exhibit *in concreto*," followed by the demonstrative phrase "This schematism of our understanding..." (B 181), referring to the antecedent, suggests that schematism contains a sort of generality like that of a concept. In this circumstance, Kant's criticism of how a concept's generality obstructs it from being equated with the images does not aid the argument that a schema can since the schema shares a similar issue of generality. In reconsidering the requirement of homogeneity in order to aid the subsumption, what allows the schema to synthesize the raw intuitions must be on one side homogeneous with it, like the transcendental schema. This sort of homogeneity is something that is lacking in the concept, and hence why the concept cannot function directly to subsume the intuition under itself.

Given the shortness of the chapter on schematism and tension in the text, Pendlebury's reconstruction yields an elegant path for the interpretation of the notorious passage of "hidden art". Though differing from Pendlebury's claim that Kant abandons his first proposal of an intermediate that is homogenous on both ends, my claim regarding a different usage of "subsumption" and "application" fundamentally supports the two synthesis interpretations, as the difference amongst them is the intuition's

level of determination. Given the existing tension in the text and the lack of characterization of the sensible schema, the pre-conceptual reading well satisfies the curiosity regarding the passage of schematism.

References

- Kant, Immanuel, et al. “The Transcendental Doctrine of the Power of Judgement (or Analytic Principles) First Chapter On the Schematism of the Pure Concept of the Understanding.” *Critique of Pure Reason*, Cambridge University Press, Cambridge, 2016, pp. 271–277.
- Millican, P. F., and David Hume. “Of the Idea of Necessary Connexion.” *Enquiry Concerning Human Understanding* (Oxford World's Classics), Project Gutenberg Literary Archive Foundation, 1912, p. 55.
- Pendlebury, Michael. “Making Sense of Kant’s Schematism.” *Philosophy and Phenomenological Research*, vol. 55, no. 4, 1995, pp. 777–97. *JSTOR*, <https://doi.org/10.2307/2108332>. Accessed 29 Apr. 2023.