

Phil 270 - Final Exam Study Guide

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1. Hume's Arguments

David Hume investigated the concept of causation in the *Treatise of Human Nature* and the *Enquiry Concerning Human Understanding*. He asked two distinct questions about our knowledge of causal relations.



- **No A-Priori Causal Inference:** Hume argues against the rational justification of the Causal Maxim ("everything that begins to exist must have a cause"). He claims that things known through reason alone are relations of ideas, which are necessary truths known intuitively or demonstrably. If the causal maxim were a necessary truth, it would be either intuitively certain or demonstrable. Hume claims it is neither. It is not intuitively certain because denying it (imagining an event without a cause) involves no contradiction. Therefore, its truth is not justified by intuition. He argues it is also not demonstrably certain.
- **No A-Posteriori Knowledge of Necessary Connection:** Hume questions what justifies believing in a necessary connection between particular causes and effects (e.g., flame causing pain, gravity causing Earth's motion). The sources imply that Hume's view is that what we experience are momentary impressions. We observe a "constant conjunction" of events, like fire and heat, or one event following another. This constant conjunction, through habit, leads to an expectation or belief in a connection, but it is a "merely subjective necessity" or "habit" of connecting representations, not an objective, necessary connection found in the perceptions themselves. Experience can only show that everything *we have observed* has had a cause, but not that *everything must* have a cause.
- **Principle of Associated Ideas:** According to Hume, the mind associates distinct ideas after observing that those ideas (1) resemble one another, (2) are contiguous in time and place, and (3) are constantly conjoined in past experience. Kant, however, argues that Hume's explanation is incomplete because one can only associate ideas if they have first been experienced separately, inspected, compared, etc. These prior acts presuppose a three-fold synthesis, which Hume's account cannot explain.
- **Attack on Substance:** The sources discuss Hume's view on the self. Hume argues that when we look inwards, we never observe an enduring entity or "self" that is the subject of all our thoughts. All we perceive is a constantly changing array of feelings, sensations, representations, etc. We are not directly aware of something that *has* these states, only the states themselves. Kant agrees with Hume that we cannot *observe* the enduring self.

2. Kant Awakens From a “Dogmatic Slumber”

According to Kant, his work in speculative philosophy underwent an important turn when he recalled his study of David Hume. In a famous passage from his *Prolegomena*, Kant states that the remembrance of David Hume was the very thing that first interrupted his “dogmatic slumber” many years prior and gave a completely different direction to his research in speculative philosophy.

3. A Big Problem

To understand a “very big problem” for Kant, it’s useful to review what he said about the understanding in the *Dissertation*. In the *Dissertation*, Kant distinguished between the logical use and the real use of the understanding.

- The **logical use** analyzes given representations to make them distinct and forms general concepts by abstraction.
- The **real use** generates concepts according to innate laws of the mind’s own constitution. Concepts given by the real use include substance, cause-effect, possibility, existence, necessity, part-whole, composition, and number.

Kant insists that these concepts given by the real use of the understanding could not be acquired by abstraction from what is sensed because they are devoid of sensory content; their content is completely abstract. He distinguishes “to abstract from some things” (not attending to things connected with a concept) from “to abstract something” (given concretely and separated from things joined to it). Concepts of the understanding abstract from everything sensitive but are not abstracted from what is sensitive. Kant suggests calling concepts of the understanding “pure ideas” and empirically given concepts “abstract concepts”.

These pure concepts do not contain anything sensory as part of their content and are not contained in anything intuited through the senses as parts. It is precisely because pure concepts are not contained in sensed things as parts or constituent features that they cannot be acquired by abstraction from sensory experience. They are entirely devoid of sensory content and are given through the real use of the understanding.

After questioning how pure concepts of the understanding can have objective validity, Kant raises another question: how can certain “axioms of reason” have objective validity when their agreement with objects has not been reached through experience?. An axiom is a general principle that is universally and necessarily true. The real use of the understanding not only provides abstract concepts but also universal and necessary principles. Examples Kant considered include laws of logic (Law of Non-Contradiction, Identity, Excluded Middle) and principles like substance persistence through change and the causal principle (everything that begins to exist must have a cause). These latter principles employ abstract concepts given through the real use of the understanding.

The sources present the “big problem” partly in contrast to the philosopher Wolff. Wolff claimed that abstract concepts of metaphysics gain objective validity by being

abstracted from what we intuit through the senses, which Kant considers false. Wolff also claimed that principles of the understanding (like the causal principle) apply to sensed things because they can be derived from laws of logic. Kant gradually concluded that Wolff's approach was unsatisfactory.

4. Two Notions of "Experience"

Kant uses the term "experience" in at least two different ways at the beginning of the Critique.

1. In one sense, "experience" refers to the episode where the mind first receives sensations from affection. This is how Kant seems to use the term when he says all cognition begins with experience, meaning cognition requires representations first given through affection. Here, "experience" is temporally prior to cognition.
2. In another sense, "experience" refers to the episode that occurs after the mind has conceptualized what it receives through affection to have "a cognition of objects". This is how Kant uses the term in phrases like "...a cognition of objects that is called experience". This second sense, also referred to as "experience2," seems to be the dominant one in the Critique, where Kant appears to define experience as "empirical cognition", which is a cognition determining an object through perceptions. An empirical cognition is a representation of what is given by sense after the contents are analyzed through reflection, comparison, and abstraction. This analysis is involved in forming general concepts and principles. This use of "experience" as "empirical cognition" can lead to problems when responding to a skeptic like Hume, as it might beg the question by assuming the existence of an objective world of objects and causal relations that Hume doubts.

A potential third sense of "experience" arises in the Transcendental Deduction, especially according to one major interpretive approach. On this interpretation, "experience" is used to refer to something like conscious awareness, a brute fact not open to doubt (like Descartes' cogito). If this is the sense Kant uses, arguing that this conscious awareness requires the categories, then his argument could potentially refute Hume without begging the question. The initial premise of the Deduction might be this conscious awareness.

5. A-Priori vs. A-Posteriori

Kant investigates whether the mind possesses any cognition not derived from experience.

- A cognition given independently of experience is called a priori.
- A cognition given by experience is called a posteriori.

In regards to judgments, "a priori" and "a posteriori" distinguish the source of evidence or warrant. Whether a judgment is a priori or a posteriori depends on whether it can be justified independently of experience. For example, "My wallet is black" is known a posteriori, only through sensory experience. "It is not the case that my wallet is black and not-black all over at the same time" can be known independently of sensory experience, a priori.

6. Two Notions of A-Priori

Kant makes a further clarification regarding the term "a priori".

1. The term is often used to refer to propositions inferred from a general principle. For example, inferring "the house will collapse if we undermine its foundations" from the general principle "bodies are heavy and will fall if their support is taken away" might be called a priori because one can anticipate the result without actually experiencing the collapse.
2. However, Kant intends to use "a priori" differently. For Kant, a cognition is given a priori only when it is absolutely independent of all experience. The previous example about the house collapsing is not a priori in Kant's sense because the general principle ("bodies are heavy...") is itself known only through experience and induction from past observation.

To mark this absolute independence from all experience, Kant introduces the notion of a "pure a priori" or "absolutely a priori" cognition. A pure a priori cognition has nothing empirical intermixed with it. For example, "Every alteration has its cause" is an a priori proposition, but it is not pure because the concept of "alteration" is drawn from experience.

7. Marks of A-Priori/A-Posteriori Cognitions

Kant argues that there are certain cognitions we possess a priori. He proposes marks or criteria to distinguish pure cognition from empirical cognition.

- Experience teaches us how something is constituted, but not that it could not be otherwise.
- Necessity: If a proposition is thought along with its necessity, it is an a priori judgment. If it is also not derived from any proposition that isn't itself necessary, then it is absolutely a priori.
- Strict Universality: Experience only provides assumed and comparative universality(through induction), meaning "as far as we have yet perceived, there is no exception". Strict universality, where no exception is allowed, indicates a judgment is not derived from experience but is valid absolutely a priori. Strict

universality belongs to a judgment essentially and points to an a priori source of cognition. Empirical universality is merely an arbitrary increase in validity from "most cases" to "all" (like "All bodies are heavy," which is justified a posteriori).

Necessity and strict universality are the secure indications of an a priori cognition and belong inseparably together. Since showing empirical limitation (lack of strict universality) or showing unrestricted universality can be easier than showing contingency or necessity respectively, it is advisable to use these two criteria separately, as each is infallible on its own.

The mark of any cognition given a posteriori is that it expresses a particular matter of fact that is contingent (it might be true or false). Cognitions that are universal and necessary are thus likely given independently of experience, i.e., a priori.

8. Why Philosophy Needs an A-Priori Science

Kant explains that once we discover that some cognitions are given a priori, we might be tempted to use them to form judgments that go beyond anything we could possibly experience. This is particularly relevant in metaphysics, which contains many such judgments about matters we deeply care about.

Recognizing the a priori sources of cognition (concepts and principles given independently of experience) can lead to applying these not just to things appearing within possible experience, but also to things beyond any possible experience. Kant calls this use "Transcendent". Such transcendent cognitions (concepts or principles) go beyond possible experience and are what make arguments for the existence of God, soul immortality, and human freedom possible.

Philosophy needs a science that determines the possibility, principles, and domain of all a priori cognitions. This science would assess the legitimacy of using a priori cognitions, particularly in metaphysics, by determining how synthetic a priori judgments are possible.

9. The Analytic/Synthetic Distinction

Kant introduces the distinction between analytic and synthetic judgments based on the relation of the predicate to the subject in an affirmative judgment.

- An **analytic judgment** is one where the predicate **B** belongs to the subject **A** as something (covertly) contained in the concept **A**. The connection of the predicate is thought through identity. Analytic judgments can be called **judgments of clarification** because they do not add anything to the subject concept but merely break it down into component concepts already thought within it (though perhaps confusedly). Examples: "All bodies are extended", "All bachelors are male".

- A **synthetic judgment** is one where the predicate **B** lies entirely outside the concept **A**, though it stands in connection with it. The connection is thought without identity. Synthetic judgments can be called **judgments of amplification** because they add a predicate concept that was not thought in the subject concept and could not be extracted by analysis. Examples: "All bodies are heavy", "Every alteration has a cause".

Kant states the predicate of an analytic judgment is contained in the subject, either overtly ("all bodies are bodies") or covertly ("all bodies are extended," where "extension" is implicit in the concept of "body" as a component).

Regarding the relation to the Law of Non-Contradiction: While the sources don't present this as a separate interpretation of the analytic/synthetic distinction definition, they connect analytic judgments to the Law of Non-Contradiction in terms of justification or possibility of denial. Analytic judgments are known a priori because understanding the judgment is all that is required. The truth of an analytic judgment is guaranteed by the concepts themselves. For example, it is necessarily true that something cannot be both black and not-black all over at the same time; attempting to conceive of this involves a contradiction. Kant denies that the negation of a synthetic a priori judgment (like "every event has a cause") implies a contradiction. This suggests that analytic judgments are those whose negation yields a contradiction, in contrast to synthetic ones. Thus, analytic judgments' truth can be determined solely by the Law of Non-Contradiction and analysis of concepts, while synthetic judgments require something beyond conceptual analysis.

Analytic judgments are always a priori. If a judgment is analytic, the predicate concept is contained in the subject concept, meaning its truth can be known by merely understanding the concepts, independently of experience. Note that this does not mean experience is not required to acquire the concepts themselves (e.g., "body," "bachelor"). Analytic a posteriori judgments are a contradiction in terms for Kant because if a judgment is analytic, it can be known independently of experience, whereas an a posteriori judgment only can be known through experience.

All a posteriori judgments are synthetic. If a judgment is a posteriori, it requires experience for justification, and therefore cannot be analytic.

10. Kant's Four-Fold Classification

Kant distinguishes judgments along two axes:

- **A priori** vs **A posteriori**
- **Analytic** vs **Synthetic**

Thus, four combinations seem possible:

1. Analytic A Priori
2. Analytic A Posteriori
3. Synthetic A Priori
4. Synthetic A Posteriori

Comparison to Predecessors

Kant's distinction is similar to previous distinctions:

- **Leibniz:** truths of reason (a priori, analytic) vs truths of fact (a posteriori, synthetic)
- **Hume:** relations of ideas (a priori, analytic) vs matters of fact (a posteriori, synthetic)

However, Kant introduces a new category that was unrecognized by predecessors: *synthetic a priori judgments*.

Kant's Innovation: Synthetic A Priori Judgments

Synthetic a priori judgments:

- Are justified independently of experience
- Are synthetic: the predicate is not contained in the concept of the subject

This challenges Hume's strict classification of all a priori judgments as analytic.

Kant's Initial Arguments

Kant argues:

1. All analytic judgments are a priori.
2. All a posteriori judgments are synthetic.

Why Are All Analytic Judgments A Priori?

If a judgment is analytic, then the predicate is contained in the subject's concept. Thus, the judgment can be known simply by understanding the concept, without needing further experience.

Clarification: Knowing something a priori does not mean knowing it without any experience whatsoever. One must possess the concepts involved, and often experience is needed to acquire those concepts. But once concepts are acquired, no further experience is necessary to know an analytic truth.

Example:

- *Analytic:* "Some people are people." — Knowable a priori once concepts are acquired.
- *Synthetic:* "Some people are happy." — Requires empirical verification.

Hence, Kant states:

For it would be absurd to ground an analytic judgment on experience, since I do not need to go beyond my concept at all in order to formulate the judgment, and therefore need no testimony from experience for that. That a body is extended is a proposition that is established a priori, and is not a judgment of experience. For before I go to experience, I already have all the conditions for my judgment in the concept, from which I merely draw out the predicate in accordance with the principle of contradiction, and can thereby at the same time become conscious of the necessity of the judgment, which experience could never teach me.

Why Are There No Analytic A Posteriori Judgments?

An analytic judgment, by definition, can be known independently of experience. A posteriori judgments, by contrast, require experience. Hence, “analytic a posteriori” is a contradiction in terms.

Why Are All A Posteriori Judgments Synthetic?

If a judgment can only be justified through experience, it cannot be analytic, because analytic truths can be known independently of experience. Therefore, all a posteriori judgments must be synthetic.

The Puzzle of Synthetic A Priori Judgments

Finally, Kant addresses synthetic a priori judgments. These seem puzzling: how can a judgment connect subject and predicate without the connection being contained in the subject’s concept, yet also not based on experience?

In synthetic a priori judgments:

- The connection between subject and predicate is not analytic.
- The justification does not rely on experience.
- Thus, the ground of the connection must be independent of both conceptual analysis and empirical observation.

11. Examples of Synthetic A-Priori Judgments

Kant argues that there are synthetic a priori judgments and provides examples from three areas:

1. Arithmetic: The judgment “ $7 + 5 = 12$ ” is given as an example. Kant argues that the concept of “the sum of 7 and 5” contains nothing more than the unification of the numbers, and the concept of “12” is not thought merely by analyzing this concept. One must go beyond the concepts and seek assistance in intuition (e.g., fingers or points) to add units and arrive at 12. Thus, the predicate (12)

is not contained in the subject (7+5), making it synthetic. Despite needing intuition, Kant claims the judgment is justified a priori.

2. Geometry: Geometry determines properties of space synthetically and yet a priori. Geometrical propositions are apodictic (necessary), like "space has only three dimensions". The connection between concepts (e.g., "straight" and "shortest distance between two points") is established through intuition, but the resulting judgments have a kind of universality and necessity not derived from empirical observation.
3. Natural Science (Physica): Natural science contains synthetic a priori judgments as principles. Examples include: "in all alterations of the corporeal world the quantity of matter remains unaltered". Kant argues the concept of matter (presence in space through filling) does not contain persistence, so adding persistence goes beyond the concept, making the judgment synthetic. "in all communication of motion effect and counter-effect must always be equal". This is also presented as a synthetic a priori principle.
 - "in all alterations of the corporeal world the quantity of matter remains unaltered". Kant argues the concept of matter (presence in space through filling) does not contain persistence, so adding persistence goes beyond the concept, making the judgment synthetic.
 - "in all communication of motion effect and counter-effect must always be equal". This is also presented as a synthetic a priori principle.
4. Metaphysics: Kant states that metaphysics is full of synthetic a priori judgments. Its aim is to amplify cognition a priori, using principles that add something not contained in the given concepts. This involves going beyond experience itself. Examples mentioned implicitly or explicitly in the sources include: The proposition "Every alteration has a cause". Kant argues that experience only shows that everything observed has had a cause, not that everything must have a cause. The necessity implies a priori justification, and denying it (an uncaused event) involves no logical contradiction. Therefore, it appears to be a synthetic judgment that, if known, must be known a priori. "The world must have a first beginning". Metaphysics, in its aim, consists of purely synthetic a priori propositions.
 - The proposition "Every alteration has a cause". Kant argues that experience only shows that everything observed has had a cause, not that everything must have a cause. The necessity implies a priori justification, and denying it (an uncaused event) involves no logical contradiction. Therefore, it appears to be a synthetic judgment that, if known, must be known a priori.
 - "The world must have a first beginning".
 - Metaphysics, in its aim, consists of purely synthetic a priori propositions.

12. How is Synthetic A-Priori Knowledge Possible?

Kant finds the notion of synthetic a priori judgments puzzling initially. For a subject-predicate judgment, if the predicate is not contained in the subject (synthetic) and the connection isn't based on experience (a priori), how is the predicate connected to the subject?. What is the ground of this connection independent of experience?.

The question "How are synthetic judgments a priori possible?" is presented as the real problem of pure reason and the central question Kant sets out to answer in the Critique. He divides this general question into three:

1. How is Pure Mathematics possible?
2. How is Pure Natural Science possible?
3. How is Metaphysics possible?

For pure mathematics and natural science, Kant assumes they are actual bodies of knowledge, so synthetic a priori judgments are possible within them. The question is to explain how they are possible. For metaphysics, which is not an established science but contains putative synthetic a priori judgments, the answer to the general question will determine its fate.

Kant's approach to answering this question involves investigating the a priori elements contributed by the faculties of sensibility and understanding. The Transcendental Aesthetic addresses mathematics by arguing that space and time are pure a priori intuitions necessary for sensory cognition. Geometric propositions, for instance, rely on the pure intuition of space. The Transcendental Logic investigates the understanding and seeks to identify its a priori elements (concepts and principles) that make synthetic a priori judgments in natural science and metaphysics possible.

Kant's general strategy, particularly in the Transcendental Deduction and Analogies, is to show that certain synthetic a priori judgments are necessary conditions for the possibility of experience. If experience (in the sense of conscious awareness or empirical cognition) is actual and possible, and these judgments are necessary for its possibility, then they must be objectively valid. For example, the categories of substance and cause-effect are argued to be necessary for representing appearances as occurring within a single, objective time.

13. A Crucial Change

A crucial difference between Kant's account of sensibility and understanding in the Dissertation compared to the Critique is highlighted.

- In the Dissertation, Kant distinguished sensible and intelligible worlds and claimed that intellectual cognition of objects in the intelligible world could occur through the intellect alone, independently of the senses, using the real use of the intellect to generate concepts and acquire knowledge of things in themselves.

- In the Critique, these claims are rejected. The pure concepts of the understanding lack objective validity when used independently of the senses. The mind can no longer cognize things in themselves through understanding alone. While sense and intellect remain distinct sources of cognition, it is no longer possible to have cognition through sense or intellect alone. Objective cognition requires bringing together and working along side the elements contributed by each faculty. As Kant puts it, “Thoughts without content are empty, intuitions without concepts are blind”. Unlike the Dissertation, where representations from sense and intellect could be employed independently, in the Critique, they must be brought together and work alongside one another to yield cognition.

14. The Transcendental Aesthetic

The Transcendental Aesthetic is the first part of the Transcendental Doctrine of the Elements in the Critique. It investigates the faculty of sensibility. Its specific goal is to determine whether there are any elements of sensory cognition which are given a priori. Thus, it is a science of the a priori elements of sensibility.

In the Transcendental Aesthetic, Kant argues that the representations of time and space are not empirical concepts derived from sense but are universal and necessary conditions of sensory cognition, and are thus given a priori. He further argues that these representations belong to sensibility, not the understanding, because they are represented as singular entities and infinitely given magnitudes, unlike general, discursive concepts of the understanding.

Kant uses the results of the Transcendental Aesthetic to explain the possibility of certain kinds of synthetic a priori cognitions. Specifically, his analysis of the representation of space provides an account of synthetic a priori knowledge in geometry. Geometrical propositions are synthetic (predicate not contained in subject concept) but known a priori because they rely on the pure intuition of space.

15. Introduction to The Transcendental Logic

The Transcendental Logic is the second part of the Transcendental Doctrine of the Elements. It is devoted to investigating certain higher-order acts of cognition traditionally attributed to the faculty of understanding. Its specific goal is to isolate the faculty of understanding to determine what contributions it makes to a priori cognition.

Cognitive acts traditionally ascribed to the understanding include apprehension /conceptualization, making judgments, and ratiocination (inferences). The Transcendental Logic is organized around these functions. It has two major parts:

- The **Transcendental Analytic**: Divided into the Analytic of Concepts and the Analytic of Principles. Kant tries to show that certain concepts (categories) and principles are given a priori by the understanding and have objective validity.

- **Transcendental Dialectic:** Deals with inferences. Kant attempts to show that certain inferences given a priori by the understanding lack objective validity.

The Transcendental Logic begins with an introductory section outlining its structure and explaining its purpose.

16. What is Logic?

According to Kant, logic is the science of the universal and necessary laws of the understanding and of reason in general, or, equivalently, the science of the mere form of thought as such. By reflecting on the use of the understanding and abstracting from the particular contents of thought, we can discover universal and necessary rules that govern thinking, without which we could not think at all. These rules can be known a priori, independently of all experience, because they contain merely the conditions for the use of the understanding in general, regardless of the objects of thought.

Logic is concerned with the form of our cognition through the understanding, not its matter (content). It is analogous to a universal grammar that contains the mere form of language without words. Importantly, for Kant, logic is a normative discipline: it formulates the rules for how we ought to think, not merely describing how we do think, which falls under psychology. Its rules are derived from the necessary use of the understanding, found within oneself apart from psychology, and teach the correct use of the understanding, where it agrees with itself.

17. General vs. Special Logic

Kant distinguishes between general logic and special logic:

- **General logic** (also called elementary logic) contains the absolutely necessary rules of thinking, without which no use of the understanding occurs. It concerns these rules without regard to the difference of the objects to which it may be directed. It abstracts from all content of the predicate and considers only whether it is attributed or opposed to the subject.
- **Special logic** contains the rules for correctly thinking about a certain kind of objects. It is the organon (instrument) of this or that science. Special logics require prior knowledge of the objects of the science.

Transcendental logic is considered a branch of general logic, dealing with universal and necessary forms of thinking, but specifically those pertaining to concepts given a priori.

18. General Logic; Pure vs. Applied

Kant further distinguishes between pure and applied general logic:

- Pure general logic abstracts from all empirical conditions under which the understanding is exercised (e.g., influence of senses, imagination, memory, habit, inclination, prejudices). It deals with strictly a priori principles and is a canon of the understanding and reason regarding only the formal aspect of their use, regardless of content (empirical or transcendental). Pure logic has no empirical principles.
- Applied general logic is directed to the rules of using the understanding under the subjective empirical conditions taught by psychology. It has empirical principles and deals with attention, error, doubt, conviction, etc., describing the use of the understanding in concreto under contingent conditions of the subject. It is neither a general canon nor a special organon but merely a "cathartic of the common understanding". Applied logic is distinguished from psychology, but relies on psychological principles.

19. The Transcendental Logic

The Critique of Pure Reason is divided into two main sections: the Transcendental Doctrine of the Elements and the Transcendental Doctrine of Method. The Transcendental Doctrine of the Elements, the more important section, is further divided into the Transcendental Aesthetic and the Transcendental Logic. The Transcendental Aesthetic investigates the faculty of sensibility and seeks to determine its a priori elements. The Transcendental Logic investigates the faculty of understanding and aims to discover whether it provides any a priori elements of cognition.

The Transcendental Logic is devoted to examining certain higher-order cognitive acts traditionally attributed to the understanding, such as apprehension (conceptualization), judgment, and ratiocination (inferences). It aims to isolate the understanding to determine its contributions to a priori cognition.

Kant distinguishes the Transcendental Logic from general logic. General logic abstracts from all content of cognition and any relation to the object, considering only the logical form of the relation of cognitions to one another, i.e., the form of thinking in general. In contrast, Transcendental Logic does not abstract from all content. It only abstracts from the empirical content of cognition and studies the rules for the pure thinking of an object. It concerns itself with the origin of our cognitions of objects insofar as that origin is a priori.

Transcendental Logic is a branch of general logic that deals with the universal and necessary forms of thinking, but specifically those that pertain to concepts given a priori. It is not psycho-logic; it is a normative discipline outlining how we should think, not just how we do. It is also not a special logic focused on thinking about a specific kind of object. Instead, it focuses on the universal and necessary laws of thought for all objects in general, specifically concerning a priori cognition of objects.

The Transcendental Logic is divided into two major parts: the Analytic and the Dialectic.

- **The Transcendental Analytic** aims to show that certain concepts and principles are given a priori by the understanding and that these have objective

validity. It is divided into the Analytic of Concepts and the Analytic of Principles.

- **The Transcendental Dialectic** deals with inferences and attempts to show that certain inferences given a priori by the understanding lack objective validity.

20. On the Logical Use of The Understanding

In the Dissertation, Kant distinguished between two forms of the understanding: the logical use and the real use.

- Through the logical use, the mind analyzes representations already given to it to make them distinct by separating them into their marks. It also forms general concepts by abstraction.
- Through the real use, the mind generates certain concepts (like substance, cause-effect, possibility, existence, necessity, etc.) according to innate laws of its constitution. These concepts are entirely devoid of sensory content and cannot be acquired by abstraction from what is sensed.

The logical use of the understanding is primarily responsible for making our cognitions distinct. The very same acts of analysis (reflection, comparison, and abstraction) involved in making a cognition distinct also enable the mind to acquire general concepts and order them hierarchically. These acts are also applied to states of affairs or events, allowing the mind to form empirical principles, such as generalizing from particular experiences of fire being hot to the principle "All fire is hot".

However, in the Critique, Kant argues that the spontaneity of the mind that makes cognition possible consists of a three fold synthesis (apprehension, reproduction, recognition) that is even more basic than these merely "logical" acts of analysis. These acts of synthesis make possible even the understanding and, through it, all experience as an empirical product of understanding. Logical analysis of the manifold given by sense always presupposes some act of synthesis. The logical use of the understanding, which makes empirical cognition possible, is itself made possible by the three-fold synthesis.

21. The Table of Judgment

In the Analytic of Concepts, having argued that the understanding is the faculty for judging, Kant claims that the functions of the understanding can be exhaustively exhibited by identifying the functions of unity in judgments. In the section titled "On the logical function of the understanding in judgments," Kant attempts to provide an exhaustive list of the basic forms common to every possible judgment. By abstracting away the particular contents of any judgment, Kant claims to find that every possible judgment has at least four basic characteristics, called "titles". These are quantity,

quality, relation, and modality. Under each title, there are three distinct "moments" representing the possible forms under that title.

Kant's Table of Judgments:

- **Quantity:** Universal, Particular, Singular
- **Quality:** Affirmative, Negative, Infinite
- **Relation:** Categorical, Hypothetical, Disjunctive
- **Modality:** Problematic, Assertoric, Apodeictic

Every possible judgment must instantiate one moment from each of the four titles. Kant claims this table is largely inherited from classical logic.

However, Kant makes certain modifications to the standard table for the purpose of developing a transcendental logic.

- **Quantity:** Classical logicians treated singular judgments like universal ones in syllogisms because the predicate applies to the whole subject, even if it's a single individual. Kant approves of this for general logic but argues that for cognition, singular judgments must be distinguished from universal ones. A singular judgment is about an individual object cognized through intuition, while a universal judgment is about a class cognized through a concept. Since cognition through intuition is different from cognition through concepts, distinguishing singular from universal judgments is necessary when classifying judgments according to their role in cognition.
- **Quality:** Kant adds a third moment, "infinite," distinct from affirmative and negative judgments. General logic abstracts from the content of the predicate, considering only whether it's attributed or opposed to the subject. However, transcendental logic considers the "value or content" gained for cognition. An infinite judgment, like "The soul is not-mortal," is affirmative in logical form but uses a merely negative predicate. It places the subject within an unlimited domain (non-mortal beings). While logically affirmative, it adds no positive content to the concept of the soul; it only limits the infinite sphere by excluding what is mortal. This function, though merely limiting regarding content, is important for pure a priori cognition and thus included in the transcendental table.
- **Relation:** By including hypothetical and disjunctive judgments alongside categorical ones, Kant goes beyond traditional Aristotelian logic, which focused exclusively on categorical syllogisms. This follows logicians who extended Aristotelian logic. Kant believes the relations expressed in these three forms (predicate to subject, ground to consequence, divided cognition to members of division) are the most basic kinds of relations between thought contents in judgments.

22. The Table of Categories

Following the table of judgments, Kant introduces the "table of categories," which he claims contains the most basic, pure concepts of the understanding. These concepts are supposed to be what result when the forms of judgment are applied to the manifold given by intuition. Kant asserts that the understanding, the faculty of judgment, performs acts of combination (synthesis) on the manifold given by sense. The pure concepts of the understanding are the most basic ways of combining this manifold to form a possible thought.

Kant claims there are exactly as many pure concepts of the understanding, applicable a priori to objects of intuition, as there are logical functions of possible judgments in the previous table. He calls these concepts "categories", following Aristotle.

Kant's Table of Categories:

- **Of Quantity:** Unity, Plurality, Totality
- **Of Quality:** Reality, Negation, Limitation
- **Of Relation:** Of Inherence and Subsistence (*substantia et accidens*), Of Causality and Dependence (cause and effect), Of Community (reciprocity between agent and patient)
- **Of Modality:** Possibility – Impossibility, Existence – Non-existence, Necessity – Contingency

The pure concepts of the understanding are nothing more than ways of combining the manifold given through intuition. Since they are acts of combination, there are as many basic pure concepts of the understanding as there are basic logical functions of possible judgments. The categories are the most basic concepts connected to these fundamental forms of judgment.

23. Initial Premises of The Transcendental Deduction

In the Transcendental Deduction, Kant aims to demonstrate that the categories have objective validity, meaning they necessarily apply to what we intuit through the senses. His argument is a Transcendental Argument, showing that the objective validity of the categories is a necessary condition for experience. Since experience is actual, it must be possible, and thus the categories must have objective validity.

A crucial point is understanding what Kant means by "experience" in this context. While he sometimes uses it to mean the initial reception of sensations (*experience1*) or empirical cognition (*experience2*), for the Transcendental Deduction, some commentators argue he uses "experience" in a third sense: conscious awareness. This interpretation suggests Kant starts with the brute fact of conscious awareness, which even a skeptic like Hume doesn't deny, and argues that this conscious awareness is only possible if the categories have objective validity.

There are two main candidates for this "brute fact" or initial premise of the Deduction:

1. **Consciousness of Time:** Kant emphasizes the consciousness of time in the first part of the A-Deduction.
2. **Unity of Consciousness (Transcendental Apperception):** This is the principle that all our diverse representations must be contained within a single, unified consciousness. Kant refers to it variously as "transcendental unity of apperception," "unity of consciousness," "unity of apperception," or "pure apperception". He calls the principle of apperception the "highest principle in the whole sphere of human knowledge". Kant states a priori consciousness of the thoroughgoing identity of ourselves regarding all representations belonging to our cognition is a necessary condition for the possibility of all representations. This principle is called the "transcendental principle of the unity" of the manifold of our representations.

While it's debated which of these is the true starting point, Kant is arguing that our consciousness of time or the unity of consciousness is only possible if the categories have objective validity.

24. The Three-Fold Synthesis

Kant argues that while the mind is passive in receiving the matter of cognition through affection, it must be active in cognition because the manifold given by sense can only be grasped as a manifold through spontaneous acts of the mind. This spontaneity consists of a three fold synthesis, which Kant designates as the syntheses of apprehension, reproduction, and recognition. This threefold synthesis is a necessary condition that grounds the logical use of the understanding and makes empirical cognition possible.

The three aspects of synthesis are:

1. **Synthesis of Apprehension:** To grasp the manifold given by sense as a manifold, the mind must "run through" its parts. As it does so, each separate representation must be simultaneously "held together" in thought. If representations are given successively, the mind must apprehend that what is represented at one time is connected to what was represented previously. This synthesis combines the various parts of the manifold to represent them together as a whole.
2. **Synthesis of Reproduction:** Apprehension is inseparably connected to the synthesis of reproduction. If the mind were to lose preceding representations from thought when proceeding to subsequent ones, no whole representation (like a line, a duration of time, or a number) could arise. This synthesis is necessary to reproduce previous representations in thought.
3. **Synthesis of Recognition:** Both apprehension and reproduction require recognition. Unless we recognize that what has been reproduced is the same as what was experienced previously, reproductions would be in vain, and we would perceive each moment as a completely new experience. Kant claims this act of

recognition involves applying a concept to the manifold of sense that has been synthesized through apprehension and reproduction. The object that unifies these representations is the unity of the consciousness of the synthesis of the manifold according to a rule or concept.

The three fold synthesis is what makes the understanding in its logical use possible. It is prior to the logical acts of analysis (reflection, comparison, abstraction) and makes them possible.

25. Response to Hume

Kant addresses the philosophical challenges posed by David Hume. Hume argued that all matters of fact are known a posteriori and are synthetic, while all relations of ideas are known a priori and are analytic. Hume sought to derive concepts like cause and effect from frequent association and habit.

Kant challenges Hume's classification by arguing for the existence of synthetic a priori judgments, which are justified independently of experience but whose predicate concept is not contained in the subject concept. Metaphysics, pure mathematics, and pure natural science are cited as areas containing such judgments.

In the Transcendental Deduction, Kant also directly responds to Hume's account of the operations of the understanding and the belief in the unity of consciousness. Hume attempted to explain the origins of our belief in the unity of consciousness by appealing to principles of association (resemblance, contiguity, constant conjunction) applied to distinct ideas. However, Kant argues that distinct ideas can only be associated if they have first been subjected to the threefold synthesis. No analysis or association is possible unless the mind's representations have been subjected to this synthesis. This synthesis, in turn, presupposes transcendental apperception (unity of consciousness).

Therefore, Kant claims that Hume's analysis, which tries to explain the unity of consciousness through association, is ultimately circular and self-defeating. By showing that the unity of consciousness (or consciousness of time) is a fundamental fact presupposed by empirical cognition, and that this fact requires the objective validity of the categories, Kant aims to provide an on-question-begging response to Hume. If Kant successfully shows that conscious awareness itself depends on the categories, he refutes Hume's skepticism about their objective validity. Some interpreters, however, see Kant as merely clarifying presuppositions of existing knowledge rather than justifying them against a skeptic like Hume.

Regarding Hume's account of cause and effect, Kant argues that the concept of cause inherently contains the concept of necessity and strict universality of rule. This contradicts Hume's view that it is derived merely from frequent association and habit. In the Analogies of Experience, Kant aims to show that the category of cause-effect is necessary for determining the objective succession of appearances in time.

26. The Consciousness of Time

Time is identified as the form of inner sense and also the form of all appearances. All of the mind's representations, as mental states, must be ordered, connected, and brought into relations with one another in time. Kant suggests that consciousness of time is one of the primitive facts about our "experience" and a possible starting point for the Transcendental Deduction.

The consciousness of time presupposes the three fold synthesis (apprehension, reproduction, recognition). Without the synthesis of reproduction, even the purest and most fundamental representations of time and space could not arise. Similarly, the synthesis of apprehension is required for forming a priori representations of time and space.

In perceiving an event, such as watching a ship sail by, the different stages of the event occur successively in time. To perceive this as an event, the mind must not only apprehend each stage separately but also reproduce them in thought. These reproductions must be assembled or arranged according to a certain rule so that the mind can grasp the whole collection of representations as standing in a specific relation to one another in time. Without such a rule, these representations could not be perceived as an event.

Kant argues that empirical cognition is only possible if we are conscious of the objective time-order of appearances, not just the subjective order in which we apprehend them. This objective time-order is determined by non-arbitrary and non-contingent rules. Since the temporal locations and relations of appearances cannot be directly perceived or inferred from their subjective order, they must be determined by applying certain a priori connecting concepts (the categories). Specifically, the category of substance is linked to persistence and determining duration, cause-effect to objective succession, and mutual interaction to simultaneity, all necessary for determining objective temporal relations.

27. Empirical vs. Pure Synthesis

Kant distinguishes between empirical synthesis and pure synthesis.

- An **empirical synthesis** is when the combination of the manifold given by intuition is based on experience.
- A **pure synthesis** occurs when the combination of the manifold is given a priori.

Kant claims that pure synthesis is what gives us pure concepts of the understanding (categories). These categories are the most basic ways of combining the manifold given by sense a priori. The pure synthesis of the manifold given through intuition is carried out by the faculty of productive imagination. This productive synthesis is transcendental if it concerns only the a priori connection of the manifold.

The unity of this pure synthesis is called transcendental if it is represented as necessary a priori in relation to the original unity of apperception. Since the unity of apperception grounds all possible empirical cognition, the transcendental unity of

the synthesis of imagination (the pure form of all possible cognition) is also necessary, and through it, all objects of possible experience must be represented a priori. The categories, which are the pure concepts of the understanding, contain the necessary unity of the pure synthesis of the imagination regarding all possible appearances.

28. Rules for The Synthesis of Recognition

The synthesis of recognition, the third part of the threefold synthesis, involves applying a concept to the manifold of sense that has been synthesized through apprehension and reproduction. This synthesis requires that we recognize that the contents reproduced are the same as those previously experienced.

Kant claims that the object represented by the synthesis of the manifold according to a concept is nothing other than the unity of the consciousness of the synthesis of the manifold. The object is our consciousness of the representations unified according to a rule. This rule-governed combination is essential for representations to refer to an object and be unified in a single consciousness.

The categories are the most basic rules or concepts used to unify the manifold of sense. For example, when representing an event like a ship sailing (a succession of different states), the mind must arrange the sequence of representations according to a rule, the category of cause-effect. When representing co-existing features of an enduring object, the rule applied is the category of substance-attribute. These categories are necessary for having perceptual experiences of the sort we have.

Since applying a concept is tantamount to making a judgment, and judgment is the act of combining distinct contents, every act of combining sense content involves a judgment. The manifold must be combined according to the finite number of basic rules involved in any judgment, and since the categories are the most basic concepts connected to these judgments, the sense contents must be combined according to the categories. Thus, the categories are the rules for the synthesis of recognition that make objective cognition possible.

29. New Goal: Unity of Consciousness

In the Transcendental Deduction, after discussing the threefold synthesis and its connection to consciousness of time, Kant introduces transcendental apperception, or the unity of consciousness, as a further necessary condition for experience. It is the principle that all the mind's separate representations must be contained within a single, unified consciousness. This principle is presented as a fundamental fact presupposed by all empirical cognition.

Kant argues that if consciousness of a manifold (whether of distinct marks, spatially arrayed parts, or a series of representations) is possible, then the successive representations must all be contained in a single, unified consciousness. This unity of consciousness is seen as a fundamental datum of our experience, not subject to doubt. Kant calls it the "transcendental principle of the unity of all the manifold of our representations".

The objective validity of the categories is ultimately derived from their necessity as conditions for this unity of consciousness. The unity of apperception makes possible the connection of all appearances according to laws and implies a necessary unity of the synthesis of all appearances in accordance with concepts (categories). If there were no transcendental grounds of unity, our soul could be filled with a "swarm of appearances without experience ever being able to arise from it".

30. What Makes Transcendental Apperception Possible?

Having identified transcendental apperception as a necessary condition for experience, Kant asks what makes this unity of consciousness possible. What unifies or holds together the separate representations in a single consciousness?

One possibility is that representations are unified by directly observing their relation to a single, enduring self. However, Kant rejects this explanation, following David Hume's argument that when we look inwards, we never observe an enduring entity (the self) that is the subject of our thoughts. We are only aware of the ever-changing states themselves (feelings, sensations, representations, etc.). We are not directly aware of the "something" that has these states.

Kant's positive account is that the unity of consciousness is made possible by the very same act of synthesis that unifies the manifold to represent it according to a concept. The transcendental unity of apperception makes possible the connection of all possible appearances in one experience in accordance with laws. This unity of consciousness is impossible if the mind cannot become conscious of the identity of the function by which the manifold is synthetically combined into one cognition.

The necessary consciousness of the identity of oneself is simultaneously a consciousness of an equally necessary unity of the synthesis of all appearances in accordance with concepts (rules). The mind could not think of its own identity a priori in the manifoldness of its representations if it did not have before it the identity of its action, which subjects all empirical synthesis of apprehension to a transcendental unity and makes possible their connection according to a priori rules. This means the unifying action of the understanding in synthesizing the manifold according to concepts is what makes the unity of consciousness possible. This synthesis is carried out by the productive imagination and its unity is necessary in relation to the original unity of apperception.

31. Kant's Positive Account of Transcendental Apperception

Kant's positive account, particularly in the second part of the Transcendental Deduction, focuses on the unity of transcendental apperception as the ground of all possible cognition.

The understanding is defined as the unity of apperception in relation to the synthesis of the imagination. The pure understanding is this same unity in relation to the

transcendental synthesis of the imagination. The pure understanding contains a priori cognitions (the categories) that contain the necessary unity of the pure synthesis of the imagination regarding all possible appearances. This relation of appearances to possible experience is necessary for us to obtain any cognition at all. Therefore, the pure understanding, via the categories, is a formal and synthetic principle of all experiences, and appearances have a necessary relation to the understanding.

32. The Transcendental Deduction

With Transcendental Apperception properly justified, the central task of the Transcendental Deduction is to demonstrate the objective validity of these categories. Objective validity means that the categories necessarily apply to what we intuit through the senses. Kant argues that the categories are necessary conditions for experience (understood as conscious awareness or empirical cognition). They are the rules according to which the manifold of intuition must be combined in thought (through synthesis, especially recognition) in order for our representations to be unified in a single consciousness and refer to an object.

The categories are connected to the basic forms of judgment identified in the Metaphysical Deduction. Since every act of combining sense content involves a judgment, and the categories are the most basic concepts connected to judgment forms, sense contents must be combined according to the categories.

The Analogies of Experience aim to show how the relational categories (substance-attribute, cause-effect, reciprocity) are necessary for representing appearances as occurring within a single, objective time. The category of substance is necessary for determining appearances across time (persistence/duration). The category of cause-effect is necessary for determining objective succession. The category of reciprocity is necessary for determining simultaneous existence. These categories are the a priori connecting concepts required to determine the objective temporal relations of appearances.

33. Kant's Basic Argument

Kant's basic argument in the Transcendental Deduction, particularly as reconstructed from the later sections of the A-Deduction, can be summarized as a move from the necessity of a unified consciousness to the necessity of the categories.

The argument starts with a fundamental fact about human cognition, often taken to be the transcendental unity of apperception (unity of consciousness). This principle asserts that all the manifold of representations must be capable of belonging to one consciousness. Kant states that experience is only possible if there is a unity of consciousness.

The next step is to show that this unity of apperception is made possible by an a priori synthesis of the manifold given by sensory intuition. This synthesis, performed by the productive imagination, is transcendental if its unity is necessary in relation to pure apperception.

All our conscious awareness consists of a manifold of sense contents ordered in time and space. This manifold can only be unified in a single consciousness if the representations are combined through the threefold synthesis (apprehension, reproduction, recognition in a concept). This combination requires that the representations refer to an object. Representations refer to an object only if they are related to one another in a non-arbitrary, rule-governed way.

Therefore, a manifold of representations can only be unified in a single consciousness if they are related according to such rules. Kant then makes the crucial claim that if representations are related according to non-arbitrary, rule-governed ways, the categories must have objective validity.

The conclusion follows: since the unity of consciousness is necessary for experience, and the unity of consciousness requires the synthesis of the manifold according to rules, and these rules are the categories, the categories must necessarily apply to objects of experience. The pure understanding, containing the categories, is a formal and synthetic principle for all experiences, making appearances necessarily related to the understanding.

One acknowledged weakness in the A-Deduction version of this argument is that Kant does not explicitly demonstrate why the categories specifically are the rules required for the non-arbitrary combination of representations. The B-edition seeks to clarify this by linking the categories more directly to the fundamental forms of judgment identified in the Metaphysical Deduction.

1. All intuition is nothing for us unless it can be taken up into consciousness.
2. We are conscious *a priori* of the identity of ourselves across all representations. (This is the transcendental unity of apperception.)
3. The unity of the manifold in a subject is synthetic. Thus, pure apperception yields a principle of the *synthetic* unity of the manifold.
4. The unity of apperception is made possible by an *a priori* synthesis of the manifold. This synthesis is carried out by the productive imagination.
5. The unity of this *a priori* synthesis is transcendental if it is necessary in relation to the original unity of apperception.
6. All consciousness involves a manifold of sense contents in space and time.
7. This manifold can only be unified in one consciousness if it is combined through the syntheses of apprehension, reproduction, and recognition.
8. These syntheses require that representations refer to an object.
9. Representations can only refer to an object if they are related in a rule-governed way.
10. Therefore, a manifold can only be unified in a consciousness if its representations are related in a non-arbitrary, rule-governed way.
11. If representations are related in a rule-governed way, then the categories must have objective validity.

∴ The categories have objective validity.

34. The First Analogy: Substance

The section "The Analogies of Experience" in the Critique focuses on demonstrating the objective validity of the three relational categories: substance-attribute, cause-effect, and reciprocity. Kant's argument relies on the idea that these concepts are necessary for appearances to be represented as occurring within a single, "objective" time.

In the A-edition, Kant states the principle as follows:

All appearances contain that which persists (**substance**) as the object itself, and that which can change as its mere determination, i.e., a way in which the objects exist. [A182]

In the B-edition, it is stated as follows:

In all change of appearances substance persists, and its quantum is neither increased nor diminished in nature. [B224]

The main difference between these two formulations of the principle is that the statement in the B-edition is stronger than the one in the A-edition. In both editions, Kant states that in every change, there is something that remains permanent, and that this is substance; similarly, in both editions Kant also asserts that every change in appearance must be thought of as a change in state of a permanent substance. However, in the second edition, Kant makes a further claim: namely, that "its quantum is neither increased nor diminished in nature." The B-edition statement is thus stronger than the A-edition since the former commits Kant to everything he asserts in the A-edition, but adds one additional claim: namely, that the quantum of substance never increases or diminishes.

Kant defines experience here as "empirical cognition," which is a cognition that determines an object through perceptions. Drawing on the Transcendental Deduction, he reiterates that empirical cognition requires the synthesis of separate representations within a single, unified consciousness according to a non-arbitrary rule.

He notes that in experience, perceptions come together only contingently, and no necessity of their connection is evident in the perceptions themselves, because apprehension is merely a juxtaposition of the manifold of empirical intuition. However, experience is a cognition of objects through perception, and the relation in the existence of the manifold must be represented not as it is subjectively juxtaposed in time, but as it is objectively in time.

Since the objective temporal determination of appearances cannot be explained by appealing to a representation of time itself, or by inferring it from subjective apprehension, the necessary connection of perceptions that constitutes objective experience must be possible only through the application of a priori connecting concepts (the categories). Thus, experience is possible only if we represent the necessary connection of perceptions, and this representation is possible only through the categories.

The proof of the first Analogy of Experience ("Experience is possible only through the representation of a necessary connection of perceptions") begins by reiterating points from the Transcendental Deduction.

1. Experience is empirical cognition, determining an object through perceptions.
2. Empirical cognition requires synthesizing representations in a single, unified consciousness according to a non-arbitrary rule.
3. Perceptions are apprehended successively in time, which is the form of inner sense. To be apprehended together, they must be combined (juxtaposed) in thought.

Kant then argues that the way perceptions come together in our apprehension is contingent, and no necessity of their connection is found in the perceptions themselves. This is because apprehension is merely a juxtaposition of the empirical manifold in time. There is nothing in the representations themselves that explains why they are ordered in time in a particular way; their order depends solely on how they are given through contingent affection.

However, experience is a cognition of objects. As established in the Deduction, representing something as an object means combining its representations in an arbitrary, rule-governed way. While the subjective order of apprehension is contingent, the contents of our representations must be ordered and related in time through some non-arbitrary rule if we are to have cognition of objects.

Therefore, empirical cognition (experience) requires that appearances be represented as standing in necessary connections with one another. This means their contents must be combined in thought according to a non-arbitrary rule. Since time is the form of appearances, this necessary connection involves their ordering and connection in time according to non-arbitrary rules, i.e., the representation of their objective time-order.

The proof concludes that the objective temporal determinations of appearances are necessary for experience. Since these determinations cannot be derived from the mere apprehension of appearances or a direct representation of time itself, this necessary combination of perceptions must be possible only through certain a priori connecting concepts". These concepts are the categories, particularly the relational categories, which provide the rules for determining how appearances are related to one another objectively in time. Thus, experience, as the cognition of objects ordered objectively in time, is possible only through the representation of a necessary connection of perceptions according to the categories.

1. If empirical cognition is possible, then all appearances must be represented in objective time as successive and simultaneous. [From Transcendental Deduction]
 2. If appearances must be represented in objective time as successive and simultaneous, then all appearances must be represented within a single, unitary time.
 3. If all appearances must be represented within a single, unitary time, then time itself must be represented as permanent.
 4. Time itself cannot be perceived.
 5. If time itself must be represented as permanent, and time itself cannot be perceived, then some perceptually accessible stand-in for time (appearance) must be represented as permanent.
 6. If some perceptually accessible stand-in for time is represented as permanent, then that stand-in must be represented as a substance. [By definition of "substance"]
 7. If a perceptually accessible stand-in for time must be represented as a substance, then the concept of substance must have objective validity.
 8. If empirical cognition is possible, then the concept of substance must have objective validity [From 1–7, HHHHHS]
 9. Empirical cognition is possible.
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- ∴ The concept of substance must have objective validity [From 8 & 9, MP]

35. The Second Analogy: Causation

Kant argues that:

1. We can only distinguish an objective temporal succession (an event) from a mere sequence of perceptions (e.g., seeing a house from different sides) if we apply the concept of causality.
2. Just as substance is required to represent persistence in time, causality is required to represent succession.

Hume doubted two causal principles:

1. That everything that begins has a cause.
2. That like causes produce like effects.

Kant attempts to defend the first principle, arguing that we cannot even perceive one thing following another as a temporal sequence unless we already apply a causal rule to the appearances, and that Hume's account is circular. Hume presupposes we can observe succession, but that very observation already depends on the application of causality.

Hume had argued that we derive our belief in causal connections merely from observing regular sequences in experience. According to Hume, we see fire repeatedly followed by heat and come to expect the latter whenever we encounter the former. But Kant believes this gets things backward. We do not learn about causality from experience; rather, experience itself depends on our ability to represent events as causally structured.

Kant begins by distinguishing between two types of temporal order. First, there is the subjective order in which our perceptions occur—for example, we might look first at the roof of a house, then its base, or in reverse. These perceptions are ordered in time, but the order is flexible, and the object (the house) is perceived as a unified whole regardless of the sequence. Second, there is objective time-order—the actual sequence in which events occur in the world, independent of our perspective. To perceive an event, such as a ship sailing downstream, we must perceive its stages in a specific, irreversible order: first the ship is upstream, then it is downstream. Reversing this sequence would mean we were witnessing a different event entirely.

This distinction leads Kant to a deeper question: how can we ever distinguish an objective temporal succession (a real event) from a mere sequence of perceptions? After all, our representations are always successive, regardless of whether we are perceiving change or stability. If time itself cannot be perceived directly, then something else must make this distinction possible. Kant argues that we must appeal to a rule—a principle that governs the transition from one state to another. That rule is the principle of causality. When we judge that one appearance follows another necessarily, we are applying a causal rule. It is only through this rule that we can locate appearances within objective time and thus experience them as events.

This leads to Kant's central claim: the concept of cause and effect is not something derived from observing sequences in the world. Rather, it is a necessary condition for representing those sequences as events in the first place. In short, we could not experience a world of changes without already representing appearances as connected by causal laws. The very possibility of empirical cognition—of experiencing something as happening—requires that we apply the concept of causality.

Kant's argument thus turns Hume's reasoning on its head. Instead of causality being learned from experience, it is what makes experience—especially of succession—possible at all.

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1. If empirical cognition is possible, then all appearances must be represented in objective time.
 2. If all appearances must be represented in objective time, then all appearances must be represented as either successive or simultaneous with one another.
 3. If all appearances must be represented as successive or simultaneous with one another, then we must be able to distinguish an objective succession from a static state of affairs.
 4. If we are able to distinguish an objective succession from a static state of affairs, then we must be able to conceive of the times at which successive appearances occur as being determined in accordance with a rule that makes them irreversible and necessary.
 5. If we are able to conceive of the times at which successive appearances occur as being determined in accordance with a rule that makes them irreversible and necessary, and time itself cannot be perceived, then some perceptually accessible stand-ins (appearances) must be represented as following one another according to a rule that is necessary and irreversible.
 6. If some perceptually accessible stand-ins must be represented as following one another according to a rule that is necessary and irreversible, then appearances must be represented as standing in causal relations to one another. [By definition of "cause and effect"]
 7. If appearances must be represented as standing in causal relations to one another, then the concept of cause-effect must have objective validity.
 8. If empirical cognition is possible, then the concept of cause-effect must have objective validity. [From 1-7, HHHHHHHS]
 9. Empirical cognition is possible.
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- ∴ The concept of cause-effect must have objective validity. [From 8 & 9, MP]