

Class 26: April 28

Kant's *Critique of Pure Reason*, Transcendental Deduction (AW 737-756)

I. The Categories

The Transcendental Analytic contains Kant's transcendental derivation of the concepts we impose on appearances given in intuition.

Again, the transcendental method is to start with our cognitions and work backwards towards the conditions that must exist in order for us to have the cognition.

Kant presents what he takes to be a complete table of concepts, dividing them into four classes.

In presenting such a table, he recalls Aristotle's work on the categories.

Aristotle delimited ten categories of being

- A1. substance (e.g. man, horse)
- A2. quantity (e.g. four-foot)
- A3. quality (e.g. white, grammatical)
- A4. relation (e.g. double, larger)
- A5. where (e.g. in the market)
- A6. when (e.g. yesterday)
- A7. being-in-a-position (e.g. is-standing)
- A8. having in addition (e.g. has-hat-on)
- A9. doing (e.g. cutting)
- A10. being affected (e.g. suffering, passion)

For Aristotle, all language, indeed all thought, belongs to one of these categories.

When we say, or think, something, we combine instances from two or more of the categories.

If Aristotle's list were complete, we could adopt it as a fundamental theory about our thought.

If, further, this list were not merely accidentally complete, but necessarily complete, we might see it as indicating *a priori* conditions of human cognition.

Kant does not adopt Aristotle's categories uncritically, in large part because he wants to make sure that the list is complete.

For Kant, the categories will function as laws of thought, as logical.

[The categories] are concepts of an object in general whereby the object's intuition is regarded as *determined* in terms of one of the *logical functions* in judging (B128, AW 745b).

Kant's logic is thus a psychological program.

Kant provides four conditions for the transcendental analytic.

- (1) The concepts must be pure rather than empirical.
- (2) They must belong not to intuition and sensibility, but to thought and the understanding.
- (3) They must be elementary concepts, and must be distinguished carefully from concepts that are either derivative or composed of such elementary concepts.
- (4) Our table of these concepts must be complete, and the concepts must occupy fully the whole realm of the pure understanding (A64/B89, AW 737b).

On this basis, Kant develops twelve categories in four classes:

Quantity	Relation
Unity	Inherence and Subsistence (substance)
Plurality	Causality
Totality	Community (Interaction)
Quality	Modality
Reality	Possibility and Impossibility
Negation	Existence and Non-Existence
Limitation	Necessity and Contingency

The development of these categories, in what is called the metaphysical deduction of the categories, proceeds transcendently rather than empirically.

Hobbes, Locke, and Hume produced rudimentary results about the structure of our psychology empirically.

Hobbes discussed the train of our thoughts, dividing them into regulated and unguided mental discourse; see Chapter 3 of *Leviathan*.

Locke discussed ideas of reflection, and isolated our ability to abstract as an important psychological capacity for philosophical purposes.

For Hume, connections among ideas were either resemblance, contiguity, or cause and effect relations.

But, Hume did not insist that these categories were comprehensive.

All of these philosophers proceeded empirically, looking at our psychological processes and generalizing.

Kant insists that such empirical deductions could never yield the necessity that underlies synthetic *a priori* reasoning.

Experience contains two quite heterogeneous elements: namely, a *matter* for cognition, taken from the senses; and a certain *form* for ordering this matter, taken from the inner source of pure intuition and thought. It is on the occasion of the impressions of the senses that pure intuition and thought are first brought into operation and produce concepts. Such exploration of our cognitive faculty's first endeavors to ascend from singular perceptions to universal concepts is doubtless highly beneficial, and we are indebted to the illustrious *Locke* for first opening up the path to it. Yet such exploration can never yield a *deduction* of the pure *a priori* concepts, which does not lie on that path at all. For in view of these concepts' later use, which is to be wholly independent of experience, they must be able to display a birth certificate quite different from that of descent from experiences (A86-7/B118-9, AW 742b-743a).

Consider causation.

In particular, consider the difference between an instance of causal connection, say a massive object falling to the surface of the Earth, and accidental conjunction, like my checking my mail and then having lunch at the diner.

The causal relation has an element that necessitates the effect.

The accidental relation has no such aspect.

I could check my mail without going to the diner.

If the world were Humean (i.e. a world of conjunction rather than connection), then all relations among events would be like that between the mail and diner.

But, in fact, Kant says, the world is full of causal connections.

This concept [causation] definitely requires that something, A, be of such a kind that something else, B, follows from it *necessarily* and according to an *absolutely universal rule*. Although appearances do provide us with cases from which we can obtain a rule whereby something usually happens, they can never provide us with a rule whereby the result is *necessary* (A91/B124, AW 744a).

Kant is a little too generous here.

If we had no *a priori* knowledge of causes, I'm skeptical that we could even infer rules about things usually happening.

The entire world would seem loose, unconnected, haphazard.

Locke thought that he could abstract the requisite concepts from experience.

Hume and Berkeley showed that such abstraction was not justified on the basis of experience.

Hume agrees with Kant that an empirical deduction of our psychological capacities could never yield the necessity that we need for metaphysics and science.

Thus Hume yields to skepticism.

Kant's Copernican revolution consists of the rejection of skepticism, the embrace of synthetic *a priori* knowledge, and, consequently, the transcendental deduction of the categories.

II. The Transcendental Deduction: An Overview

We have seen that intuition presents us with bare appearances.

Kant calls the raw data of experience the manifold of representation.

These bare appearances have to be structured in order to be thought.

We impose concepts on the manifold.

To this point, we have been setting up the deduction of the pure concepts of the understanding, describing the role of the concepts, without proving either their subjective or objective validity.

Now, we have reached the deduction.

We can describe the goal of the deduction as to show that the categories necessarily apply to the manifold given in intuition.

Another way to put the goal is to show how the sensible and intellectual functions of our cognitive capacities align.

The deduction is divided into two stages.

In the first stage, §15-§21, Kant argues that the categories apply to any being with sensible intuition.

In the second stage, §24-§26, Kant argues that they apply to any being with human sensible intuition, i.e. with our sensory apparatus.

While Kant argues that the categories apply to any being with an intuition that is separate from its thought, he does not argue that any being would have to be subject to the categories.

The categories are used to unify, through synthesis, the manifold given in intuition.

They apply only to creatures whose relation with the world essentially involves representation.

For if I were to think of an understanding that itself intuited (as, e.g., a divine understanding that did not represent given objects but through whose representation the objects would at the same time be given or produced), then in regard to such cognition the categories would have no

signification whatever. The categories are only rules for an understanding whose entire faculty consists in thought, i.e. in the act of bringing to the unity of apperception the synthesis of the manifold that has been given to it from elsewhere in intuition (B145, AW 750a-b).

Kant rewrote the deduction significantly in the B version of the *Critique*.
Ariew and Watkins present only the B version, which we will follow.

Kant presents a summary of the first stage of the deduction in §20, AW 749b-750a.
James van Cleve, who compares the deduction to a tropical jungle, clears away the growth and reduces it to the following argument:

1. *The Unity Premise*: All representations of which I am conscious have the unity of apperception.
 2. *The Synthesis Premise*: Representations can have such unity only if they have been synthesized.
 3. *The Category Premise*: Synthesis requires the application of Kant's categories.
- Conclusion*: The categories apply to all representations of which I am conscious.

I'll (roughly) follow van Cleve.

III. The Transcendental Deduction: Stage One

Kant calls the imposition of concepts on the manifold of representation by the understanding combination.

Combination is representation of the *synthetic* unity of the manifold (B131, AW 746b).

The raw appearances come to us as an unordered, unstructured, mess.
The imposition of concepts on that manifold turn that mess into an orderly thought.
Such a thought has a thinker, as an implicit component.
The implicit thinking is what Kant calls apperception.
Apperception has to unify the messy manifold into an orderly cognition.
As it does so, it presupposes a particular thinker, or apperceiver.

For the manifold representations given in a certain intuition would not one and all be *my* representations, if they did not one and all belong to one self-consciousness (B132, AW 746b).

We proceed from a diverse manifold given in intuition to a single thought of a single, conscious person.
When we do so, we combine (either by synthesis or otherwise) the manifold.
This combination is an active function of our cognition, in contrast to the passivity of intuition.
We act on the manifold in intuition, unifying it, subjecting it to the conditions of the [synthetic unity of apperception](#).

The understanding is nothing more than the faculty of combining *a priori* and of bringing the manifold of a given intuition under the unity of apperception - the principle of this unity being the supreme principle in all of human cognition (B135, AW 747a-b).

Since our action is subjective, the application of the conditions of unity are subjective.

When we determine an intuition, we make it ours.

Further, an empirical unity is subjective, in that everyone's individual experiences are independent.

The empirical unity of apperception...is only derived from the original unity under given conditions *in concreto*, has only subjective validity. One person will link the representation of a certain word with one thing, another with some other thing; and the unity of consciousness in what is empirical is not, as regards what is given, necessary and universally valid (B140, AW 749a).

But the unity is also objective, since it determines objects for us.

Kant contrasts 'if I support this body, then I feel a pressure of heaviness' with 'this body is heavy'.

Or consider, "[These lines](#) look like they differ in length, but they are actually the same length."

Since we have some knowledge of physical laws, we are able to make the latter claim.

But, unless the subjective unity of apperception were also objective, we could only make the former claims.

The relation among appearances is not merely arbitrary or accidental.

Even Hume marveled at the regularity in nature.

We know of causal relations.

Thus, we must be able to make objective claims about objects, not merely subjective claims.

Intuitions become objects for an individual, but they are still objects.

We can distinguish between fantasies and appearances.

Kant calls the faculty of representing the manifold imagination.

Kant's use of 'imagination' is close to Descartes's use of the term.

Imagination connects the manifold of sensible intuition.

The synthesis of the imagination can be *a priori*, in determining the form of a sensation.

But it can also be empirical, when acting on a particular sensation.

The goal of the deduction is to unite the sensible and intellectual portions of our cognition, to match intuition with understanding.

Kant argues that the categories apply to all creatures that use intuition, that represent the world.

Even my own existence is known only through the categories, only as an appearance.

Although my own existence is not appearance (still less mere illusion), determination of my existence can occur only in conformity with the form of inner sense and according to the particular way in which the manifold that I combine is given in inner intuition (B157-8, AW 752b).

An infinite mind might, in contrast, work not by representation but by direct awareness.

That mind would have no use for the categories.

Since the categories only apply to those with some sort of intuition, any pure concepts will only apply to objects of possible experience.

In particular, mathematical propositions hold only for objects of possible experience.

The pure concepts of the understanding, even when they are (as in mathematics) applied to *a priori* intuitions, provide cognition only insofar as these intuitions...can be applied to empirical intuitions... Consequently the categories cannot be used for cognizing things except insofar as these things are taken as objects of possible experience (B147-8, AW 751a).

IV. The Transcendental Deduction: Stage Two

In the second stage of the transcendental deduction, mainly §26, Kant shows that the categories necessarily apply to human sensibility.

We must now explain how it is possible, through *categories*, to cognize *a priori* whatever objects *our senses may encounter* - to so cognize them as regards not the form of their intuition, but the laws of their combination - and hence, as it were, to prescribe laws to nature, and even to make nature possible (B159-60, AW 753a).

Notice the strength of Kant's claim: we make nature possible.

We do not make the noumenal world possible.

But, nature is not a property or aspect of the noumenal world.

It is a result of our structuring the raw data of experience that we are given in intuition.

We intuit the world in space and time.

But space and time, besides being forms of intuition, are also intuited themselves.

They do double duty.

Space and time are represented *a priori* not merely as *forms* of sensible intuition, but as themselves *intuitions* (containing a manifold), and hence are represented with the determination of the *unity* of this manifold in them... (B160-1, AW 753b).

Since space and time are pure forms of intuition, they are presupposed in all experience.

Since any experience is already structured, or determined, space and time, as we experience them, are deeply embedded in those experiences.

Since any experience also presupposes the application of the categories, space and time themselves must be subject to the categories.

When I turn the empirical intuition of a house into a perception by apprehending the intuition's manifold, then in this apprehension I presuppose the *necessary unity* of space and of outer sensible intuition as such; and I draw, as it were, the house's shape in conformity with this synthetic unity of the manifold in space. But this same unity, if I abstract from the form of space, resides in the understanding, and is the category of the synthesis of the homogeneous in an intuition as such, i.e. the category of *magnitude*. Hence the synthesis of apprehension, i.e. perception, must conform throughout to that category (B 162, AW 754a).

Kant presents a parallel example, apprehending the freezing of water, to illustrate the applicability of the categories to representations given in inner sense (time).

When I perceive the water changing states, I presuppose time, in order that I can represent change.

This synthetic unity, as an *a priori* condition under which I combine the manifold of an *intuition as such*, is - if I abstract from the constant form of *my* inner intuition, i.e., from time - the category of cause; through this category, when I apply it to my sensibility, *everything that happens is, in terms of its relation, determined by me in time as such*. Therefore apprehension in such an event, and hence the event itself, is subject - as regards possible perception - to the concept of the *relation of effects and causes*; and thus it is in all other cases (B163, AW 754a).

In other words, not only do the categories apply to any intellect which receives appearances in intuition. They apply specifically to our intuition which is sensible in the forms of outer sense (space) and inner sense (time).

Abstracting space and time, we find that the categories were presupposed.

We do not, via abstraction, create the categories.

We discover them already imposed on our experiences.

The *possibility of experience* is what provides all our *a priori* cognition with objective reality. Now experience rests on the synthetic unity of appearances, i.e., on a synthesis of appearances in general performed according to concepts of an object. Without such synthesis, experience would not even be cognition, but would be a rhapsody of perceptions (A156/B195, AW 761a).

I mentioned earlier that one way of putting the goal of the transcendental deduction was to show how the sensible and intellectual functions of our cognitive capacities align.

Appearances conform *a priori* both to the forms of sensible intuition and to the categories of the understanding which combine the manifold.

Kant's idealism may, at this point, seem prominent.

Just as appearances exist not in themselves but only relatively to the subject in whom the appearances inhere insofar as the subject has senses, so the laws exist not in the appearances but only relatively to that same being insofar as that being has understanding (B164, AW 754b).

The forms of intuition meet up with the categories of the understanding in large part because they are both *a priori* impositions of the subject.

We don't know about the conditions on objects in the noumenal world.

We do know that for us, experiences (i.e. appearances of objects in nature) must have certain abstract features.

What connects the manifold of sensible intuition is imagination, and imagination depends on the understanding as regards the unity of its intellectual synthesis, and on sensibility as regards the manifoldness of apprehension (B164, AW 754b).

The laws of cognition are very general.

Kant's claim is not that the laws of nature are innate, but that some laws of nature are synthetic *a priori*, arising from the general conditions for experience.

Nature (regarded merely as nature in general) depends...on the categories as the original basis of its necessary law-governedness. But even the pure faculty of the understanding does not suffice for prescribing *a priori* to appearances, through mere categories, more laws than those underlying a *nature in general* considered as the law-governedness of appearances in space and time. Particular laws, because they concern appearances that are determined empirically, are *not completely derivable* from those laws... (B165, AW 754b-755a).

Where Descartes, Leibniz, and Spinoza all thought that the laws of physics were innate, knowable *a priori*, Kant argues that only the most general laws of nature can be known *a priori*.