

Class 24: April 22

Kant's *Critique of Pure Reason*, Prefaces and Introduction (AW 717-729)

I. Approaching Kant's First Critique

There is something fundamentally anti-philosophical about the way in which we are proceeding in this course.

Good studies in philosophy, especially in the history of philosophy, usually consist of close readings of texts.

In this class, we have been trying mainly to focus on a few central topics, and look briefly at how various philosophers of the modern era think about them.

I do not mean to imply that we have not been doing philosophy.

We have looked at the texts, and analyzed the most important passages.

But our approach has been mainly from the center out.

We have been starting with the key claims, the philosophers' main conclusions, and then working backwards to evaluate the arguments in as much detail as we can see in the short time we have.

Our approach contrasts with what one might call a deductive, or synthetic, approach.

On the synthetic approach, we would start at the beginning of someone's work, and trace his/her argument carefully through a text.

We sort of took that approach to Descartes's *Meditations*, but we quickly abandoned it with the difficult arguments in Spinoza's *Ethics*, with the repeated assaults on the same material in Leibniz, and with the dense repetitiveness of Locke.

For Kant, after taking a bit of an overview to start, we will slow down and work carefully through as many of the difficult passages, especially in the Transcendental Deduction, as we can.

Kant's master work in metaphysics and epistemology is called the *Critique of Pure Reason*.

A [critique](#) is an extended review or commentary.

(A critique is not merely a criticism.

I have noticed students lately misusing the term.

See the usage note in the American Heritage Dictionary, linked above, which calls many of the uses I have seen pretentious jargon.)

Kant wrote three critiques late in his life.

The first Critique is devoted to the questions, "Is metaphysics possible?" and, "If so, how?"

We can see Kant's First Critique as attempting to define the limits of human knowledge.

The rationalists over-reached, claiming knowledge where none could really be had.

But the empiricists fell short, ending as skeptics or idealists.

Kant's work attempts to bridge the two approaches.

The second Critique (*Critique of Practical Reason*) concerns moral philosophy, and the third Critique (*Critique of Judgment*) concerns aesthetics.

The first Critique may be seen as the dying gasp of the representationalist theory of ideas that characterizes the modern period.

It marks the end of the modern era.

Kant wrote the first edition of the First Critique, now called the A version, in 1781.  
He published a second edition, now called the B version, in 1787.  
Most people now read the two editions together.  
Some of the B version extends and clarifies Kant's original arguments.  
We will not spend time on the distinction between the two versions.  
Both are presented in the Ariew and Watkins, and you can see the marginal page numbers for each.

## II. Reason

Everyone we have read accepts that we have an ability to reason.  
The rationalists and empiricists disagreed about the matter for reason.  
The rationalists thought that the content of our judgments is provided by innate ideas and sense experiences.  
They differed about the veridicality of sense experience, but not about whether we are presented with sense experience.  
The empiricists thought that the content of our minds is only provided by the senses, and looked to reduce reasoning to some kinds of association among images.  
Kant rejects both rationalism (dogmatic, going beyond its true abilities) and empiricism (skeptical).

If we take logic, as Kant does, to be the rules of reasoning in thought, then Kant's project may be seen as a logical project.  
He looks in part at how reason can determine, or structure, an object.  
He also examines how reason can make objects actual, through the application of pure thought.  
Kant thus claims that some cognition is pure, consisting of reason acting on itself.  
But, that's different from thinking that there are ideas carrying significant particular content innate in us.

## III. Kant's Copernican Revolution

Aristoteleans believed that the sun, stars, and other celestial bodies circled the earth.  
But, astronomical discoveries made the cycles of those bodies highly complicated.  
Copernicus (and others) found that the mathematics became tractable if he posited a moving earth.

Having found it difficult to make progress there when he assumed that the entire host of stars revolved around the spectator, he tried to find out whether he might not be more successful if he had the spectator revolve and the stars remain at rest (Bxvi, AW 720a).

Hume and Berkeley found it impossible to justify knowledge of the material world by assuming that our cognition has to conform to objects.  
We are stuck, either with Berkeley, as idealists, or with Hume, as skeptics.  
But, if the objects have to conform to our cognition, then we might have a priori knowledge of those objects.

One way in which objects conform to our cognition is in imagination, when we fantasize.  
If all of the world were merely one person's fancy, then the objects of that world would necessarily conform to that person's cognition.  
Such a view of the world would be an unacceptable, subjective idealism.

In contrast, Kant defends a transcendental idealism.

In Kant's idealism, the world conforms to our cognition because we can only cognize in certain ways.

The world of things-in-themselves, or what Kant calls the noumenal world, remains, as it did for Hume, inaccessible, completely out of range of our cognition.

The noumenal world is beyond the limits of possible experience.

In the other direction, all possible experience has to conform to our cognitive capacities.

The phenomenal world, the world of possible experience, is necessarily structured according to those capacities.

Our cognitive capacities come under two general headings: intuitions and understanding.

Intuition (or sensibility) is our mental faculty for having something presented to us.

Understanding, which is structured according to certain basic concepts, is our mental faculty for determining, or thinking, about objects.

All objects have to be presented in intuition and determined by concepts in order to be thought.

Thus, all of experience necessarily conforms to our cognition.

Logic, as the laws of thought, will help us understand our faculty of cognizing, and will thus help us understand the phenomenal world.

The distinction between the realm of objects of possible experience and that of transcendent objects helps Kant deny the legitimacy of much of the work of the continental rationalists.

For, God is, according to Kant, outside the range of possible experience, and thus can not be an object of knowledge.

In order to reach God, freedom, and immortality, speculative reason must use principles that in fact extend merely to objects of possible experience; and when these principles are nonetheless applied to something that cannot be an object of experience, they actually do always transform it into an appearance, and thus they declare *all practical extension* of reason to be impossible. I therefore had to deny *knowledge* in order to make room for *faith* (Bxxx, AW724a-b).

Such topics are outside the range of our possible experience.

Similarly, *a priori* knowledge of a mind-independent world is impossible.

#### IV. The Analytic and the Synthetic

Kant's central claim, in answer to the question of whether metaphysics is possible, is that it is, and that it consists of synthetic *a priori* judgments.

To understand this claim, we have to contrast two distinctions, between analytic and synthetic claims and between *a priori* and empirical, or *a posteriori* claims.

For Kant, analyticity and syntheticity are characterizations of judgments, which are mental acts.

Judgments, for Kant, following Aristotle, are all of subject-predicate form.

The analytic/synthetic distinction is today generally taken to be a linguistic distinction, a difference between kinds of propositions or statements.

A proposition, roughly, is the meaning of a sentence.

Propositions too may be coarsely divided into subject and predicate.

Whether we take analyticity and syntheticity to be properties of judgments or propositions, they almost always are taken to be dependent on concepts.

Analyticity, for Kant and in contemporary work, involves conceptual containment.

A judgment is analytic if the concept of the predicate is contained in the concept of the subject.

So, 'bachelors are unmarried' is analytic because the concept of a bachelor contains the concept of being unmarried.

'Bachelors are unhappy' is synthetic because the concept of a bachelor does not contain the concept of being unhappy.

It may be the case that all bachelors are unhappy, but that depends on the way the world is, and not on the way that language or concepts are.

Concepts may be taken either as mental objects (thoughts) or as abstract objects.

If we take concepts to be thoughts, then different people can not share concepts.

My thoughts are not your thoughts, even though we can think about the same thing.

I believe that it is thus preferable to take concepts as abstract objects, and to take our thoughts to be about concepts.

When I think of a concept, like the concept of a bachelor, I perform a mental act which we can call grasping the concept.

These concepts are structured, so that they can contain, or not contain, other concepts.

I won't much pursue the question of how concepts contain other concepts, or what the relation of containment is.

But, we should notice that there are at least two different notions of conceptual containment that philosophers have used.

Kant uses what Frege (in the late nineteenth century) called beams-in-the-house analyticity.

When we look at a house, if we want to see if it contains a certain structure, we merely peel back the walls, and literally see the beams.

In contrast, Frege defends a plant-in-the-seeds analyticity.

According to Frege, a statement can be analytic as long as it follows from basic axioms according to analyticity-preserving rules of inference.

One of the advantages of Frege's views over Kant's is that he can handle statements that are not in subject-predicate form.

John walks with those with whom he strolls.

Such sentences seem analytic, true in virtue of the conceptual containments of their parts.

Yet, they are not of simple subject-predicate form.

Again, I won't pursue this worry about Kant's account of analyticity; I just wanted to point it out.

## V. Linguistics, Epistemology, and Metaphysics

Analyticity and syntheticity thus have to do with concepts, whatever we take them to be.

The linguistic or conceptual (or even psychological) distinction between analytic and synthetic judgments is independent of the epistemological distinction between *a priori* justifications and empirical (or *a posteriori*; these are synonymous terms, as I am using them) ones.

A statement is justified empirically if we appeal in our account of how we know it to sense experience.

Our belief that snow is white is empirical, since we have to see snow to justify knowledge of its

whiteness.

In contrast, our belief that  $3+2=5$  may be justified *a priori*, as prior to, or independent, of sense experience.

We need to see particular snow in order to know that snow is white.

We need experiences with no particular objects in order to know that  $2+3=5$ .

Further, no empirical experiences with undermine that claim.

When we add 2 cups of water to 3 cups of salt, and fail to come up with 5 cups of anything, we don't abandon our claim.

Similarly, two chickens added to three foxes doesn't produce five animals; it just yields three fat foxes and a pile of feathers.

The arithmetic claim remains.

So the analytic/synthetic distinction is linguistic/conceptual; and the *a priori*/empirical distinction is epistemological.

A third distinction, between necessary and contingent claims, is metaphysical.

Some claims hold necessarily, like mathematical claims.

Other claims are merely contingent, like the claim that snow is white.

Many philosophers typically, and traditionally, considered claims to be necessary only if they are believed *a priori*.

Discussing the apriority of physical laws, Kant makes that claim explicitly.

[Such] propositions are clearly not only necessary, and hence of *a priori* origin, but also synthetic (B18, AW 726b-727a).

As Hume argued, one can not arrive at a necessary truth from contingent experiences.

Further, one might think that all *a priori* claims must be analytic, since one reasons to the truth of an analytic claim without appeal to experience.

Similarly, one might align contingency with empirical justification and syntheticity.

A claim is contingent when it is justified by appeal to sense experience and it brings together concepts that are not necessarily related.

In particular, Hume seems to make these two claims.

Relations of ideas are necessary, justified *a priori*, and analytic.

Matters of fact are contingent, justified empirically (by tracing ideas back to initial impressions) and synthetic.

We'll put aside the necessary/contingent distinction, since Hume and Kant agree on it.

Then, we can depict Hume's claim as the following:

	<i>A priori</i>	Empirical
Analytic	Relations of Ideas	--
Synthetic	--	Matters of Fact

The upper-right and lower-left cells are empty.

Kant's great big claim, his answer to the question of whether metaphysics is possible, is that the lower-left cell is non-empty.

	<i>A priori</i>	Empirical
Analytic	Beams in the House	--
Synthetic	Most Mathematics and Metaphysics, and Some Physics	Empirical Judgments

Kant argues that metaphysics is possible, and it consists of synthetic *a priori* judgments. He agrees with Hume that matters of fact are all synthetic.

Experiential judgments, as such, are one and all synthetic (A7/B11, AW 725a).

But, he disagrees that the converse holds.  
There are synthetic claims that are not experiential, or empirical.

#### VI. The Synthetic *A Priori*

Kant's least contentious examples of synthetic claims that are not empirical are mathematical. In particular, he claims that ' $7 + 5 = 12$ ' is not analytic.

Mathematical propositions, properly so called, are always *a priori* judgments rather than empirical ones; for they carry with them necessity, which we could never glean from experience...It is true that one might at first think that the proposition  $7 + 5 = 12$  is a merely analytic one that follows, by the principle of contradiction, from the concept of a sum of 7 and 5. Yet if we look more closely, we find that the concept of the sum of 7 and 5 contains nothing more than the union of the two numbers into one; but in [thinking] that union we are not thinking in any way at all what that single number is that unites the two. In thinking merely that union of 7 and 5, I have by no means already thought the concept of 12; and no matter how long I dissect my concept of such a possible sum, still I shall never find in it that 12. We must go beyond these concepts and avail ourselves of the intuition corresponding to one of the two... (B14-5, AW 726a).

Extending the claim that there are synthetic *a priori* judgments to metaphysics, Kant claims that 'every effect has a cause' is also synthetic *a priori*.

The universality of the statement entails that it is not an empirical judgment.

But, Kant claims that it is not an analytic judgment.

In the concept of something that happens I do indeed think an existence preceded by a time, etc., and from this one can obtain analytic judgments. But the concept of a cause lies quite outside that earlier concept and indicates something different from what happens... (A9/B13, AW 725b).

In addition to mathematics and metaphysics, Kant claims that physics also proceeds according to synthetic *a priori* principles.

The claim that some claims in science are synthetic *a priori* shows that Kant's conception of physics is closer to that of Galileo and Descartes than it is to that of contemporary physicists.

The science of the scientific revolution was more speculative, whereas contemporary science is more experimental.

While some contemporary physics is highly speculative, it is generally held that a mark of a good theory is whether it is testable, or refutable, or otherwise confirmed or contravened by experimental results.

String theory, which is a purported unifying theory for physics, has been controversial because its proponents have not been able to formulate tests for it.

Kant agrees that some portions of physics must be empirically testable.

He also believes that certain physical principles are synthetic *a priori*.

*Natural science contains synthetic a priori judgments as principles.* Let me cite as examples just a few propositions: e.g., the propositions that in all changes in the corporeal world the quantity of matter remains unchanged; or the proposition that in all communication of motion, action and reaction must always be equal to each other (B17-18, AW 726b).

Kant's last example is Newton's third law of motion.

His claim is that such laws hold necessarily, and so can not be learned from experience.

Hume agreed that universal physical laws could not be learned from experience.

From that claim, and the empiricist claim that all knowledge comes from experience, Hume was led to skepticism.

Kant, working in the other direction, starts his reasoning by accepting that there are mathematical, metaphysical, and even physical laws that hold necessarily, that are known *a priori*.

Working backwards, he argues that our cognitive abilities must be such that they allow us to know those principles *a priori*.

For experience would provide neither strict universality nor apodeictic certainty... (A31/B47, AW 733b).

Kant does not argue that innate ideas are built into our minds in the way that Descartes and Leibniz alleged.

Instead, he argues that there are certain cognitive structures that impose an order to our possible experience.

The mind has templates for judgments, which are imposed and can be known *a priori*.

But, against those who defend innate ideas, it does not contain judgments themselves.

If we look at our cognitive structures, turning our reason on itself, we can find the necessary structure of our reasoning, and grounds for synthetic *a priori* claims.

That process, which Kant calls transcendental reasoning, is the essence of Kant's Copernican revolution.

Kant's transcendental arguments lead to a description of our subjective conceptual framework, which nevertheless holds necessarily for all possible experience.