Notes (more or less) on the Introduction

I. According to Kant, a **judgment** is: discursive knowledge (*Erkenntnis*) on a condition.

That is: a judgment applies a certain general *rule* to the (possibly) many different *cases* that satisfy a certain condition.

Simplest example (and almost the only one Kant ever discusses in detail):
A judgment of the form "A is B" (such as: "Cinnabar is red").
> In Kant's terminology [see A70/B95], this is called a *universal, affirmative, categorical, assertoric* judgment.

The *rule* of the judgment is the concept B (e.g., "red").
The *condition* of the judgment is the concept A (e.g., "cinnabar").
The judgment asserts that the rule B applies to everything in general, on the condition that it be the object of the concept A (e.g., that everything follows the rule of appearing red to those with normal vision under normal lighting and so forth, on condition that it is cinnabar).

As should be clear from the example, judgments always somehow involve *concepts*.
A **concept**, according to Kant, is: a relatively immediate discursive intellectual representation.
> I say "relatively immediate" because, as Kant explains at the beginning of the Trasncendental Aesthetic, discursive intellectual representations always relate to their objects only by means of — that is, through the *mediation* of — sensible intuitions. But a concept is immediate in the sense that it does not relate to its object by means of a further *intellectual* representation. A judgment, in contrast, always applies its rule to its objects only by means of some concept.)
> In the example, the judgment "Cinnabar is red" relates to its object (that to which the rule "red" is applied) by means of the concept "cinnabar"; the concept "cinnabar," in turn, relates to its object by means of sense experience (in this case, primarily, sense experience of cinnabar).

Every concept is a general, discursive representation, which means: every concept expresses a rule under which many cases can fall.
(So, in the simple example discussed above, the judgment asserts that one rule, B, applies in all cases that fall under a second rule, A.)

Simple examples of the types of judgment discussed below:

	a priori	a posteriori
analytic	All bodies are extended.	—
synthetic	A straight path is the shortest path between two points. To every action there is an equal and opposite reaction. Every event has a cause.	All bodies are heavy. All cinnabar is red.

II. Judgments are classified as either **analytic** or **synthetic**, depending on whether the condition of the judgment is inherently sufficient to ensure the applicability of the rule of the judgment.

In an *analytic* judgment, the condition is inherently sufficient to ensure the applicability of the rule.

In the simple case of the judgement "A is B," this means: anything that falls under the rule of the concept A, and hence satisfies the condition of the judgment, must as such (that is: simply by virtue of its falling under A) fall under the rule of the concept B, which is also the rule of the judgment.

Example: "All bodies are extended."

Part of the rule something needs to fall under to be counted as a body is that it be extended (that is, roughly: take up space, not to have all its parts together).

An analytic judgment therefore only "explicates" or "elucidates" something that was already implicit in its condition.

Analytic judgments follow from the principle of contradiction: the (attempted) representation of an object about which the judgment was false — that is, an object that satisfies the judgment's condition but fails to fall under its rule (e.g., a non-extended body)— would involve an attempt to think the same thing as both A and not A (e.g., as both a body and, because not extended, not a body).

Moreover, this principle (of contradiction) is one to which *all* true judgments in general, whether analytic or synthetic, must conform.

In a *synthetic* judgment, the condition is inherently *in*sufficient to ensure the applicability of the rule.

> Example: "All bodies are heavy" (the Law of Universal Gravitation).
> According to Kant, the rule something needs to fall under to be counted as a body does not require it to be heavy (that is, roughly: to be attracted to other bodies).
>> (This is precisely why Leibniz rejected gravitation, both Newtonian and Aristotelian, as an occult property: a property which allegedly belongs to all bodies, but which cannot be understood clearly and distinctly as a consequence of the essence of body.)

Synthetic judgments do not merely explicate or elucidate; they are "ampliative" — that is, they increase, amplify, our knowledge of the objects which satisfy their condition.

Synthetic judgments do not follow from the principle of contradiction: even if a synthetic judgment is true, we can still think an object of which it is false (e.g., a non-heavy body) without contradicting ourselves.

> Later on, however, Kant will introduce a different principle (the "highest principle of all synthetic judgments," discussed starting at A154/B193) from which some synthetic judgments (namely, metaphysical synthetic a priori judgments: see below) *do* follow, and to which all true synthetic judgments in general must conform.
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> In both cases, the a priori nature of certain judgements results from a restriction which rules out their negation: we can know a priori that p because not-p is in some way defective (either self-contradictory or in violation of the highest principle of all synthetic judgments). Something like this seemingly is true of all a priori judgments in general, according to Kant.
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> In the case of a mathematical synthetic a priori judgment p, what rules out the negation, not-p, is that we cannot construct its condition with a case to which its rule applies.

III. Judgments are classified as either **a posteriori** or **a priori**, depending on whether the basis for applying the rule of the judgment to the objects satisfying its condition is our *experience* (*Erfahrung*).

What is a priori or a posteriori, in this sense, is a *judgment* (for the distinction between a priori and a posteriori *concepts*, see below).

Every *analytic* judgment must be *a priori*, because in an analytic judgment the basis for applying the rule of the judgment lies in the condition itself. Therefore, it does not lie in anything else, and in particular not in experience.

In a *synthetic* judgment, on the other hand, the condition is not inherently sufficient to ensure the applicability of the rule. So, if the judgment is to be true, something else must ensure the applicability of the rule.

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In a synthetic *a posteriori* judgment, this "something else" is our complete
experience having to do with its objects — that is, with the objects which
satisfy its condition.

> For example, "Cinnabar is red" is synthetic a posteriori: in all our experience
> of things which satisfy the condition of being cinnabar, we have found that
> they are red. The representation of an object as both cinnabar and
> non-red involves no contradiction, but it is the representation of an object
> of which we have no experience.

> Similarly, in our complete experience having to do with objects which count as
> bodies (including: our experience of the way apples fall, of the way the
> moon and the planets appear to move in the sky, of the tides, of the
> trajectories of cannon balls, etc.), they all collectively fall under the rule of
> Universal Gravitation, and that is the basis for the judgment "All bodies
> are heavy."

Experience is never absolutely, but only relatively, complete (there is always more
experience of cinnabar or of bodies yet to be had), and so synthetic
a posteriori judgments are never absolutely universal and necessary: an
exception might still be experienced later.

Synthetic a priori judgments are the weird case, which basically the whole book
will be about.

Kant gives three different kinds of example:

1. "A straight path is the shortest path between two points" (mathematical).
2. "To every action there is an equal and opposite reaction" (pure natural
   science).
3. "Every event has a cause" (metaphysics).

Although the book will have something to say about the possibility of (1) and, at
least implicitly, of (2), the main focus will be on (3).

> The class of synthetic judgments which follow directly from the "highest principle of all
> synthetic judgments" turns out to be (3). So, the demonstration that that principle
> holds will be the basic answer to the book's central question: How are pure synthetic
> a priori judgments possible?

> Kant takes up the subject of (2) in great detail in his later book, *Metaphysical Foundations
> of Natural Science*.

Because these judgments are *synthetic*, there is no contradiction in *thinking* an
exception to them (e.g., a straight path which is not the shortest, an action to
which there is no reaction, or an uncaused event).

But, because these judgments are (according to Kant) *a priori*, they are *not* based
on our complete experience of their objects, which also means that we cannot
experience an exception to them: they are absolutely universal and necessary.

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On the contrary, an apparent exception to such judgments would be taken as a sign of the incompleteness of our experience: e.g., that we need to measure length more carefully, that there are unknown forces acting in a system, or that we need to search harder for the unknown cause.

Important: Kant doesn't think we can make any judgments at all, or know or think anything at all, literally before we have experience. (This is the first sentence of the B Introduction: "There can be no doubt that all our knowledge [*Erkenntnis*] begins with experience.")

To say that a judgment is a priori is not to say something about *us* (that we can somehow make the judgment floating around in a void with no experience), but rather to say something about the rule and condition of *the judgment*: in particular, about what it is that ensures that its rule is applicable to the objects satisfying its condition.

Sometimes (often, in fact) Kant speaks metaphorically, as if there were a time, "a priori," before all experience, at which certain things happened (judgments were made, concepts were formed, images were imagined, etc.). But this is all a metaphor, and there is no such time.

(The phrase "a priori" itself, which means, roughly, "in advance," is already an example of this metaphor.)

For the same reason, the classification of judgments, or (see below) of concepts, into a priori and posteriori is not a distinction between innate and acquired knowledge.

IV. *Concepts* can also be classified as a priori or a posteriori, depending on our basis for believing that their object is possible (our basis for believing that something may fall under their rule).

A concept is *a posteriori*, or *empirical*, if we know the possibility of its object only from its actuality: that is, only from our experience having to do with it.

For example, the concept "cinnabar" is a posteriori: we know there can be a thing falling under the rule of what counts as cinnabar only because we have actually experienced some.

The same is true, according to Kant, of the concept "body" or "matter," understood as something movable in space.

This is also called "the empirical concept of matter," to distinguish it from a different, metaphysical concept, which is a priori.

I say "our experience having to do with it," rather than "our experience of it," because there are (according to Kant) empirical concepts whose objects we haven't experienced directly, and perhaps some whose objects we could *never* experience directly.

An example that might help understand this would be the concept "electron," although that isn't one Kant himself knew about (and although quantum field theory makes it highly questionable whether or in what sense *we* possess such a concept).

An example which Kant would recognize (but which we would not) would be "magnetic fluid" (the fluid whose flow through and around bodies was supposed to be responsible for magnetic forces).

A concept is *a priori* if we know that its object is possible, but the basis for that knowledge is not our experience.

Again, as with judgments, this does *not* mean that we literally had the concept before we had any experience, and/or that the concept is innate.

An a priori judgment which involves only a priori *concepts* is called a *pure a priori judgment.*

It turns out that mathematical and metaphysical judgments (cases [1] and [3] above) are pure a priori, whereas, confusingly, judgments of "pure" natural science (case [2] above) are *not* "pure a priori."

(There's nothing incosistent about this."Pure" is a relative term: what is pure qua apple juice is highly impure qua water. Still, it can be confusing.)

Because the question of the book is about the possibility of *pure* synthetic a priori judgments, a lot will turn on the possibility of a priori *concepts.*

The Table of Categories (A80/B106) is a table of all the fundamental pure a priori concepts (in yet another sense of "pure"), and the Transcendental Deduction is an explanation of how we can have such concepts (that is: of how we know that their objects are possible).