



Kant hoped to hit more than one bird with the Prolegomena:

It was meant to offer "preparatory exercises" to the Critique of Pure Reason — not meant to replace the Critique, but as "preparatory exercises" they were intended to be read prior to the longer work. It was also meant to give an overview of that work, in which the structure and plan of the whole work could be more starkly put across — offered "as a general synopsis, with which the work itself could then be compared on occasion". The Prolegomena are to be taken as a plan, synopsis, and guide for the Critique of Pure Reason.

He also wanted to walk his readers through the major arguments following the "analytic" method of exposition (as opposed to the "synthetic" method of the Critique): *a method that starts from some given proposition or body of cognition and seeks principles from which it might be derived, as opposed to a method that first seeks to prove the principles and then to derive other propositions from them* (pp. 13, 25–6).

What this means is that Kant realized that most of the readers were dazed by his daring to start the Critique from a scary emptiness of knowledge from which he set out to construct the very foundations on which any possible structure of knowledge can stand, and also the possibility of such a foundation i.e metaphysics. There he proceeds from these first (newly derived) principles of the theory of knowledge to examine the propositions that might be

derived from it that are adaptable to a useful metaphysics.

In the Prolegomena, Kant reverses this and takes the propositions (i.e. structure) as a given and then seeks to expose the required foundations that are needed to support such a construction. This he feels is less scary for the uninitiated reader.

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What this means is that Kant realized that most of the readers were dazed by his daring to start the Critique from a scary emptiness of knowledge from which he set out to construct the very foundations on which any possible structure of knowledge can stand, and also the possibility of such a foundation i.e. metaphysics. There he proceeds from these first (newly derived) principles of the theory of knowledge to examine the propositions that might be derived from it that are adaptable to a useful metaphysics.

Kant will define the analytical as that which is not contradictory and differentiates that from the synthetic, that which comes from our senses through our perception and experiences.

Hume sees knowledge as experience. Berkeley ('to be means to be perceived') and Leibnitz ('monads have no windows') believe that justified true beliefs comes through thinking. Kant reconciles the two while always tending towards Hume when forced to square the circle. Kant was awakened from his dogmatic slumber by Hume and he clearly felt Hume was worthwhile. He quotes Hume frequently within this book and I would recommend reading Hume's 'Treatise on Human Nature' and the short but many times referred to in this book 'Dialogues Concerning Natural Religion'

Since the refutation of the logical positivists by William Van Orman Quine in the 1950s nobody thinks in terms of apriori and aposterior synthetic or analytic foundations and previously Gottlob Frege in the 19th century put a gaping hole in the apriori synthetic. But, even when the modern reader gets past Kant's shaky foundational assertions there is a reason for understanding what Kant is getting at. This book gets the reader there. Hume takes causation out of the world and Kant develops a Copernican Revolution of the Mind and tries to return it back to us as part of nature and preserves freedom for the will.

Kant wants to make our knowledge universal, necessary and certain and does everything he can to make science and philosophy (metaphysics) thusly, while all around the world of his time period it keeps slipping into particular, contingent and probable. (Note that Newton's Gravitational Theory had been understood at that time for about 75 years and was considered sacrosanct to the point that it was tautological or a synthetic aprior truth using Kant's language).

Kant in his second critique grants God existence only because of the moral law within man and through his antinomies repeated in this book demonstrates why other proofs will lead to contradictions and will discuss in this book how existence is not a predicate (take that you Anslem of Canterbury and put your ontological proof where the sun don't shine!).

Kant then proceeds to discuss the particular features of metaphysical cognition generally, before determining that it must be an apriori-synthetic cognition rooted in the pure understanding and reason.

Kant starts his investigation proper by enquiring into how pure mathematics is possible. Pure mathematics is an example of apriori-synthetic cognition, and a good place to start to determine whether this classification is possible for metaphysics too. Mathematics is apriori because it's propositions are always necessary, and synthetic because it increases our knowledge of the subject. In the sum ' $7+5=12$ ', the concept of 12 is not thought by merely thinking of

the combination of 7 and 5.

For Kant, the senses never know things in themselves, but only as appearances. This, according to Kant, is not idealism: he admits that objects exist outside of us, but that we know nothing of what they may be in themselves. Kant doesn't distinguish between primary and secondary qualities.

Therefore, propositions of this form of sensuous intuition are only possible and valid for objects of the senses. Intuitions which are possible a priori can never concern anything other than the objects of the senses.

In his investigations into pure mathematics, Kant determines that the only way our intuition can anticipate the actuality of the object and be a cognition a priori is if the intuition contains nothing but the form of sensibility, which precedes all actual sense impressions.

The understanding requires categories for experience, whereas reason contains innately the ground of ideas, necessary concepts whose object cannot be given in experience. For metaphysics to be a science, we must distinguish between the pure concepts of reason, and the categories, whose use refers to experience.

Kant also discusses his famous antinomies, derived from the nature of human reason. These are made up of pairs of contradictory statements, both validly deduced from reason. These are: 'The world has a beginning - The world is infinite', 'Everything is constituted out of the simple - Everything is composite', 'There is freedom - No freedom, only nature' and 'There is a causal necessary being - Everything is contingent'. Kant argues that the first two antinomies are actually conceptually false in the same way the statements 'a square circle is round - a square circle is not round' are both false.

Thus Richard Rorty begins his tremendous masterpiece 'Philosophy and the Mirror of Nature', which is not the book I'm reviewing here(1). He(Rorty) goes on to critique/demolish this idea for 400-or-so pages, suggesting (in my mangled paraphrase) that instead we should think of philosophers (and, really, people in general) as creating particular technical vocabularies that are (hopefully) useful at solving spatiotemporally-local problems but that are at not to be evaluated as attempts at representing Universal Permanent Capital-T-Truth.

This is the sort of thing you have to consider before jumping into a book like Kant's Prolegomena, or really anything that Kant wrote at all. Did he do something permanent and universal, speaking to all of humanity for all of eternity? Or, despite his repeated and emphatic claims(2), did he do something that was temporarily useful to a small handful of people and that's only really interesting today to those who want to have something serious to say about the past?

The dude's a nigh-universally(3) acknowledged master of creating a whole new technical vocabulary that revolutionised human meta-thinking, but so what? We've moved on - there've been loads of critiques(4), rebuttals, revisions, expansion-packs, and whatever else you want to call philosophical developments since Kant was alive and writing things down. So that seems to suggest that the only real reason to read this guy is to better frame contemporary technical debates, to understand the 'historical origins' of particular ideas, to basically map out the skeletal remains of old coral upon which our new generations of coral currently grow and thrive. We aren't so much standing on the shoulders of giants as climbing ladders made from the dried bones of yesterday's geniuses, and once we've climbed them to the top we can freely kick them away.

MAJOR MARGINALIA

(1) 'Philosophy and the Mirror of Nature' is also the title of a DFW short story in his collection Oblivion, which made my mind explode when I first saw it (I love it when my favorite authors comment on / mess with each other). The story itself was both very good and(1.1) not as immediately Rortian as I'd've hoped, but that could've just been DFW playing a private trick on me. Ah well.

(1.1) I think most people today'd phrase this sentence as \"The story itself was very good *but* not as...\", which while maybe intuitively appealing deserves to be fought against. That is to say I don't think the non-Rortian nature of the DFW piece detracted from its quality in any way, which is kind of implied by the use of the less-friendly conjunction 'but'. 'And' just plain and simply deserves much more use, IMO.

(2) He comes across as a little insecure about his accomplishments, repeatedly saying what amounts to \"I DID THIS THING, THIS THING WAS A GOOD AND IMPORTANT THING, YOU NEED TO RECOGNIZE THAT I

DID THIS GOOD AND IMPORTANT THING", etc. From what I've read up on it seems like some of his mature work wasn't really well received at first and this pissed him off and as such the Prolegomena stands as a sort of response to his critics.

Kant set out to shed light on a rather fundamental question: Does knowledge derive from our senses (Hume), or, does it derive from rational reasoning (Descartes)? As far as I understand, Kant was the first philosopher who provided a systematic synthesis of these positions. Kant lays out, in a rigorous manner, exactly how and why these two domains of knowledge interact. In his view, the world as it exists in itself is not directly graspable to us, we are by necessity only perceiving it as it appears to our sensibility.

As Kant modestly put it, no one had ever thought that the conditions for our experience could be ascertained a priori (what an exciting premise!). And so comes this book, ostensibly for the layman but in reality intended for lazy academics in the backwoods of Königsberg (now Kaliningrad) who couldn't plough through the Critique without misunderstanding it, which is mostly a polemic answering four questions that are supposed to get us riled up for a first-hand encounter with modern philosophy's most earth, though more properly heaven shattering text. These questions are 1. How is pure mathematics possible? Kant answers that it is experience. 2. How is physics possible? Kant answers that it is rationality. 3. What is the domain of metaphysics? To combine the two former under the unity of consciousness.

Kant brilliantly points out that, with the soul, we have an a priori knowledge of the continuity of ourselves through all of our experience but we accidentally think that, since it has always continued, it will indefinitely do so; this is, in Kant's phraseology, mistaking something regulative (something that helps us experience) for something constitutive (something that exists separately).

Kant himself continued to believe in an immortal soul and a God, which he came to defend in the Critique of Practical (or as Russell called it, "Prejudicial") Reason, but for those who do not like cowardly emendations, this Prolegomena, along with the Critique, continues to demand your full modernist attention.

On the source of metaphysical cognition: "It can therefore have for its basis neither external experience, which is the source of physics proper, nor internal, which is the basis of empirical psychology. It is therefore *a priori* cognition, coming from pure understanding and pure reason." pg. 9, pgh. 266

"The good company [pure mathematics:] into which metaphysics would thus have been brought would have saved it from the danger of a contemptuous ill-treatment; for the thrust intended for it must have reached mathematics, which was not and could not have been Hume's intention." pg. 13, pgh. 271

"But the generation of *a priori* cognition by intuition as well as by concepts, in fine, of synthetic propositions *a priori* in philosophical cognition, constitutes the essential content of metaphysics." pg. 14, pgh. 274

"experience is nothing but a continual joining together (synthesis) of perceptions." pg. 18, pgh. 276

"The proper problem upon which all depends, when expressed with scholastic precision, is therefore: How are synthetic propositions *a prioripossible*?" pg. 18, pgh. 276

Metaphysics stands or falls with the solution of this problem; its very existence depends upon it. Let anyone make metaphysical assertions with ever so much plausibility, let him overwhelm us with conclusions; but if he has not first been able to answer this question satisfactorily, I have the right to say: this is all vain, baseless philosophy and false wisdom." pgs.18-19, pgh. 277

"On the contrary, I say that things as objects of our senses existing outside us are given, but we know nothing of what they may be in themselves, knowing only their appearances." pg. 30, pgh. 289

Second Part:

"Experience teaches us what exists and how it exists, but never that it must necessarily exist so and not otherwise. Experience therefore can never teach us the nature of things in themselves." pg. 35, pgh. 294

"I therefore easily comprehend the concept of a cause as a concept necessarily belonging to the mere form of experience, and its possibility as a synthetic unification of perceptions in a consciousness in general." pg. 51, pgh.

"the unity of objects is entirely determined by the understanding, and according to conditions which lie in its own nature; and thus the understanding is the origin of the universal order of nature, in that it comprehends all appearances under its own laws and thereby brings about, in an *a priori* way, experience (as to its form), by means of which whatever is to be cognized only by experience is necessarily subjected to its laws." pg. 59, pgh. 322

"we must, according to a right maxim of the philosophy of nature, refrain from all explanation of the design of nature as being drawn from the will of a Supreme Being, because this would not be natural philosophy but an admission that we have come to the end of it." pg. 67, pgh. 331

"We must therefore think an immaterial world, a world of understanding, and a Supreme Being (all mere noumena), because in them only, as things in themselves, reason finds that completion and satisfaction...as appearances always presuppose an object in itself and therefore suggest its existence whether we can know more of it or not." pg. 89, pgh. 355

This work and the first Critique are, by any standard, amongst the most important works ever written. Both the tradition of Analytic and of Continental philosophy spring directly out of them and they mark a dividing line in the history of philosophy as stark as the works of Descartes. They are undoubtedly brilliant.

Kant gives a very clever answer to this question. He says that mathematics is the internal investigation of our innate spatial and temporal senses (his word specifically is sensibility). When we observe the real world -- when we gather empirical evidence -- we are also using those same senses.

Kant asks a second question, "how is pure natural science possible?".

This is very similar to the question about mathematics, except instead of addressing space and time, Kant is asking about our ability to reason about natural laws and rules (such as causality), which then correspond to what we see in reality. The answer is again very similar to that for mathematics: Pure natural science is the internal investigation of our innate logical abilities (his word specifically is understanding). Therefore the rules and laws we discover internally about our understanding abilities must also match that which we observe, because that which we observe is limited by those exact same rules and laws.

Kant's third and final question: "how is metaphysics in general possible?".

This third question has a different flavor than the first two. I think it's more accurate to say that the question is actually "how could metaphysics be possible?", without necessarily making any assumption about whether or not it is actually possible. It may very well be impossible. Metaphysics here refers to questions like (Kant's antinomies):

1. Are space and time infinite, or finite?
2. Are all things decomposable, or are there atomic indecomposable elements?
3. Is there free will, or is everything just connected in a long causal chain?
4. Is there a necessary beginning or being, or is there nothing necessary and all things contingent?

Kant makes interesting observations about each of these questions. For the first two, he notes that they cannot be answered empirically; the answers lie outside of our finite abilities. For the last two, he notes that it depends on how you look at it: if you think of the current moment in time as without a past, then what you do now can be thought of as being free; if you think of the current moment in time in relation to the past, then you cannot be thought of as having free will.

In his Critique of Pure Reason, Kant classifies thought into different categories -- analytic/synthetic, a priori/a posteriori -- and so we see one application of this categorization is to classify which types of arguments are valid for metaphysical questions. In particular, a posteriori, or empirical, arguments are not allowed to be used to answer metaphysical questions. And therefore we see the reason for the full title of the Prolegomena: Kant is not saying that metaphysical questions are necessarily unanswerable, but he is reporting on what he thinks any answer to such questions should or should not look like, what he thinks a satisfactory "scientific" answer should look like. He leaves the challenge to future generations to find the actual answers.

> Hegel responded to Kant's philosophy by suggesting that the unsolvable contradictions given by Kant in his

Antinomies of Pure Reason applied not only to the four areas Kant gave (world as infinite vs. finite, material as composite vs. atomic, etc.) but in all objects and conceptions, notions and ideas. To know this he suggested makes a "vital part in a philosophical theory." Given that abstract thought is thus limited, he went on to consider how historical formations give rise to different philosophies and ways of thinking. For Hegel, thought fails when it is only given as an abstraction and is not united with considerations of historical reality. In his major work *The Phenomenology of Spirit* he went on to trace the formation of self-consciousness through history and the importance of other people in the awakening of self-consciousness (see master-slave dialectic). Thus Hegel introduces two important ideas to metaphysics and philosophy: the integral importance of history and of the Other person.

I think that we can also view Wittgenstein as another approach to "resolving" the Kantian antinomies. Early Wittgenstein might say that the metaphysical questions are simply not answerable, being outside of experience and outside of the world. This is essentially the same as Kant's remark on the first two antinomies. Later Wittgenstein might say that the questions (especially the last two) are non-questions based on confusions of language: our notion of the word "event" may simply already assume a "cause", so that to say something like "all events have a cause" would just be a worthless tautology like "water is wet". This is also quite similar to the remark Kant makes about the existence or non-existence of free will as depending on how you view a particular situation temporally, whether you consider it as having been preceded by something or not.

Before Kant, there were two schools of thoughts: rationalists and empiricists. Rationalists (Descartes, Spinoza, Leibniz etc.) were of the view that most of our concepts and knowledge are gained independently of sense experience, and that reason has all it needs to discern the truth without the help of experience. Empiricists (Hume, Locke etc.), on the other hand claimed that there is no innate knowledge and we learn only through sense experience (this rationalist vs. empiricist description is pretty oversimplified, but it serves the purpose). The key dividing line between empiricists and rationalists is the way they treat metaphysics.

Then came Kant. He read David Hume's famous *An Enquiry Concerning Human Understanding*, which prompted him to write his magnum opus *Critique of Pure Reason* in 1781. *Critique* was sort of poorly received because, well, it is one of the most difficult books ever written in philosophy. Kant was aware of that and in order to make his argument more accessible, he wrote a summary of *Critique* as a separate book *Prolegomena to Any Future Metaphysics* in 1783. In both *Critique* and *Prolegomena*, Kant's objective is to show that metaphysics is possible. David Hume's assertion regarding cause and effect – that we know cause and effect only through experience, and that nothing a priori is contained in the cause that can lead to effect – was a fatal blow to the metaphysics.

KANT'S ARGUMENT:

Kant's argument goes like this:

Human beings are equipped only with senses to be used by our faculty of experience. And whatever we learn from experience can only be applied to the objects of experience (i.e. **appearances**). We cannot apply what we learn from experience on **things in themselves**, which are beyond the scope of experience; this is exactly the mistake empiricists commit when they criticize metaphysics. We cannot possibly know anything about things in themselves because they exist outside the realm of space and time.

Besides criticizing empiricists, Kant also criticizes rationalists who engage in never-ending dialectical rubbish about the nature of soul, God etc. Reason poses certain questions to us that are metaphysical in nature. However, reason cannot answer these questions because they belong to things in themselves.

Now, if metaphysical questions have no answers, is it useless? Kant says 'No'. His argument is that the way previous philosophers dealt with metaphysical question made it dogmatic and useless. In order for it to be of substance, metaphysics needs to be grounded on scientific bases. Instead of diverting reason to uselessly employ faculty of understanding to comprehend things in themselves, Kant's **critical metaphysics** asks us to employ reason to dissect *itself*; to examine precisely how our knowledge is structured; to investigate knowledge itself rather than the objects of knowledge; and to apply metaphysical concepts to our own faculties rather than outside world. This is the only way metaphysics can survive.

Kant accordingly divides this book into four transcendental questions and shows how each of these is grounded in an a-priori synthetic cognition

1. How is pure mathematics possible?
2. How is pure natural science possible?
3. How is metaphysics in general possible?

4. How is metaphysics as a science possible?

Thereafter, Kant establishes the validity of the causal maxim in the phenomenal world, thereby saying that freedom may not be possible in the phenomenal world but may lie in the noumena I.e. in things in themselves which is beyond the universal laws of cause and effect and is thus free.

Kant directly addresses Hume, Descartes, basically wants to make the case for the fact that we cannot speak of knowing things in themselves, but there is still synthetic knowledge a priori that is possible. metaphysical proposition must possess absolute certainty of a kind that can't be attained from sensory experience, only through pure understanding.