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**KANT'S NEOPLATONISM:
KANT AND PLATO ON MATHEMATICAL
AND PHILOSOPHICAL METHOD**

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Abstract: Both Plato and Kant devote much attention and care to deliberating about their method of philosophizing. And, interestingly, both seek to expand and explain their view of philosophical method by one selfsame strategy: explaining the contrast between rational procedure in mathematics and in philosophy. Plato and Kant agree on a fundamental point of philosophical method that is at odds with the mathematico-demonstrative methodology of philosophy found in Spinoza and present in Christian Wolff. Both reject the axiomatic approach with its insistence on fundamental truths postulated from the outset. Both alike insist that philosophizing—unlike mathematics—is an exercise in theorizing where the questions of basicness and foundations come into view only after the inquiry has gone on for a long, long time—and certainly not at its start.

Keywords: Plato, Kant, mathematics method, philosophical method, principles, rationality, dialectic, ideas, critical philosophy.

1. Setting the Stage

Philosophers have generally been content to do their work without endeavoring to explain and justify the processes and procedures they use in doing it. They think, quite mistakenly, that here the end justifies the means, and product the process. Only a few major philosophers have concerned themselves explicitly and extensively with the methodology of philosophizing. But while this may be the rule, there are some notable exceptions, in particular Plato and Kant. Both of these monumentally significant philosophers have devoted much attention and care to deliberating about their method of philosophizing. And, interestingly, both seek to expand and explain their view of philosophical method by one selfsame strategy: explaining the contrast between rational procedure in mathematics and in philosophy.

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2. Plato

Let us begin with Plato—as is all too often only proper in philosophical deliberation.

Plato maintained that philosophy does not establish its contentions by *proof*. Instead, its methodology is *dialectic*. As Plato saw it, the mathematician starts out from purely self-evident certitudes to derive his conclusion therefrom through derivation and demonstrations. He moves downward, as it were, from a basis of unquestioned assumptions (axioms and postulates) to what is ever less evident and perspicuous. Those basic fundamentals, however, themselves lack any rational proof; they serve, as it were, as a gift horse into whose mouth we must not—and need not—look. Their only justification is their obvious fitness for the project in hand. Those mathematical basics have an air of certainty about them.

Plato elaborates the matter as follows: “Students of geometry and arithmetic and such subjects first postulate . . . [their materials], regard them as known, and, treating them as absolute assumptions, do not deign to render any further account of them to themselves or others, taking it for granted that they are obvious to everybody. They take their start from these, and, reasoning from this point on, conclude with that for the investigation of which they set out” (*Republic*, 510c–d).¹

So much for mathematics. By contrast, Plato has it that *philosophical reasoning* does not treat its data as certitudes that are not open to question. Philosophy, he maintains, is rooted in the perplexity that arises when things do not fall smoothly into place: it begins in conflict, tension, and cognitive dissonance. And dialectic takes the form of an exercise in the reconciliation of apparent contradictions: “[For] some things are provocative of thought and some are not. I see as provocative of thought things that impinge upon the senses together with their opposites, while those that do not involve sensation do not tend to awaken reflection do not bring in their opposites” (*Republic*, 524d). And those conflicting things of sense “[c]ompel the soul to puzzlement and, by arousing thought, provoke it to ask, whatever then is the one as such, and thus the study of unity will be one of the studies that guide and impel the soul to the contemplation of true being” (*Republic*, 524f–25a). As Plato saw it, the philosopher “must winnow out the inner tensions of his experience and lay open up to view whatever conflicts and contradictions one may encounter there. His method is not demonstrative but ‘dialectical,’ and in dialectic the inquiry must ‘advance’ from its data [upward] towards an unconditional basis or principle (*archê*)” (*Republic*, 510b). While providing us with some information, the senses are confusing: secure insight into how actually things stand and what should properly be said about them is something achieved only after much intellectual effort has been expended.

¹ Quotations from Plato’s *Republic* are taken from the translation by Benjamin Jowett in *Plato’s Republic* (Oxford: Clarendon Press, 1890).

And so for Plato the deep truths of philosophy, attainable through dialectic alone, are approached only at the end of inquiry and certainly not given at the outset. In this regard they are unlike the first principles of mathematics encapsulated in its axioms, postulates, and definitions. And this is why with Plato mathematics is suitable for the young but philosophy only for the mature, who alone can possess the wisdom possibilized by an ample body of experience.

In the Divided Line discussion of Book VI of the *Republic*, Plato contrasts mathematical reasoning (*dianoia*) with the intelligence the higher knowledge (*epistēmē*) obtained in philosophy through dialectic inquiry described in the terms that are well worth quoting at length:

[In mathematics] the soul is compelled to employ assumptions in its investigations, not proceeding to a first principle because of its inability to extricate itself from the rise above its assumptions. Moreover, it uses images or likenesses [via diagrams. But in philosophy] reason itself lays hold of by the power of dialectic, treating its assumptions not as absolute beginnings but literally as hypotheses, underpinnings, footings, and springboards so to speak, to enable it to rise to that which requires no assumption and is the starting-point of all, and after attaining to that again taking hold of the first dependencies from it, so to proceed downward to the conclusion, making no use whatever of any object of sense, but only of pure ideas moving. . . . Here we deal with that aspect of reality and the intelligible, which is contemplated by the power of dialectic, as something truer and more exact than the object of the so-called arts and sciences whose assumptions are arbitrary starting points. And though it is true that those who contemplate them are compelled to use their understanding and not their senses, yet because they do not go back to the beginning in the study of them but start from assumptions they do not actually possess true intelligence about them, even though the things themselves are intelligible when apprehended in conjunction with a first principle. (*Republic*, 510b–11d)

And so for Plato while mathematics rests on unquestioned assumption, in philosophy there is nothing that deserves to be treated as self-evident and secured on a basis that lies beyond the reach of investigation. Mathematics proceeds from unquestioned circumstances to establish derivative consequences, whereas philosophy moves from critically examined plausibilities to the establishment of validated certainties. Apparently secure certainties are the input of the one, while critically consolidated certainties are the output of the other.

With Plato, both mathematics and philosophy deal with an intelligible order of being that is inherently different and distinct from the physical order of existence. But while mathematical objects can be approximated physically and exemplified in physical realities that “participate” in their abstract nature, philosophical considerations here reveal an aspect of reality that is geared to values via the “form of the good” in a way whose discernment demands a mode of intellection that is not discursive but

intuitively initiative. But only a highly trained and rigorously schooled individual can gain any practical hold here.

And a great deal can certainly be said for Plato's view of the matter. After all, one does not *prove* those axiomatic fundamentals at work in mathematics—they would not be characterized as such if they could be demonstrated on the basis of something yet more fundamental. Their validation is based not on discursive reasoning from prior premises but through some definition or postulation, or a Cartesian clear and distant indication of the mind. Mathematics thus has its undemonstrated demonstrators, secured in place at the very outset of the deliberative processes. But in philosophy there is nothing like this. Here firm knowledge and secure understanding comes at the end of deliberation, not at its start. At first there are no certainties, only plausibilities—only the problematic dealings of incompatible opinions. And it is through a “dialectical” testing and winnowing of these discordant conflicting concepts that a coherent position emerges in the end through separating the coherent of truth from the chaff of loose thinking.

3. Kant on the Contrast Between Mathematical and Philosophical Inquiry

Let us now turn from the teaching of Plato to that of Kant. As Kant saw it, the very first domain of inquiry to make good a claim to scientific status was mathematics—in particular, geometry. In the Preface to the second (1787) edition of the *Critique of Pure Reason* we read: “In the earliest time to which the history of human reason extends, *mathematics*, among that wonderful people, the Greeks, had already entered upon the sure path of science” (CPuR, Bx).² And Kant envisioned the methodological difference between mathematics and philosophy in a manner not far removed from that of Plato.

Now with Kant “[a]ll knowledge arising out of reason is derived either from [the analysis of] concepts or from the construction of concepts. The former is called philosophical, the latter mathematical” (CPuR, A837=B865). Mathematics accordingly has the advantage that it constructs its own objects, whose features are imposed by the human mind on the fabric of experience. Thus mathematics is in control of its concepts, which thereby represent the modalities of experiencing rather than products of experience. This puts the mathematician into a position to start out from a certain and assured basis—a basis reflected in the definitions, axioms, and postulates of pure mathematics. And given such a basis the mathematician can proceed to elaborate demonstrations that exfoliate the inner substance of those self-constructed beginnings. He is in the fortunate position of being able to base demonstrative proof on assured first principles.

² Quotations from Kant's *Critique of Pure Reason* are taken from the translation by N. K. Smith (London: Macmillan, 1929).

The philosopher, by contrast, is in a far less fortunate position. For he is not in control of his conceptual instrumentalities. They have to be formed with reference to the “real” empirical world of our experience. Not—to be sure—that what matters is the content of what substantive experience delivers. (Philosophy is not natural science.) Rather, what is pivotal is a critical analysis of the conditions under which alone observational experience can deliver objective scientific knowledge into our hands.

And so we have it once more that while mathematics *begins* with certainties—with basic definitive and fundamental theses (axioms, postulates)—philosophy *ends* with them. And while mathematics proceeds analytically from these basics, philosophy moves synthetically toward them.

Kant accordingly rejects the prospect that philosophy is a substantively reality-descriptive discipline that yields demonstrated doctrinal findings. As he sees it, “philosophy is a mere idea of a possible science which nowhere exists *in concreto*,” and he continues: “We cannot learn philosophy, for where is it, and who is in possession of it, and how should we recognize it?” (CPuR, A838=B866). Instead, he insists “we can at most learn to philosophize” (A837=B865).

Philosophy, to be sure, is a matter of knowledge based in principles (*cognitio ex principiis*) (CPuR, A836=B864). But these principles are only a glint in the philosopher’s eye—something toward which he aims and whose attainment comes not at the outset of inquiry but only at its end (if at all). For the work at whose realization inquiring reason aims is “the systematic unity of the knowledge provided by the understanding, and this unity is the *criterion of truth* of its rules.” This systematic unity, however, is simply an idea—a merely *projected* unity that must be seen not as a given, established fact but only as a problem to be addressed—an ideal to be pursued (A697=B673). But ideal though it is, it relates to the nature of experience-accessible reality and our place within it.

As Kant saw it, a treatise on the aim, procedures, and methods of metaphysical deliberation—including a consideration of its conditions for success and the prospect of its realization—is certainly possible (and presumably actual in the *Critique of Pure Reason*). But a handbook of metaphysical findings and results lies beyond our reach and outside the prospect of possible realization. The situation here is thus very different from that of mathematics. Kant accordingly poured scorn on John Locke as someone who “goes so far as to assert that we can prove . . . [metaphysical claims] with the same conclusiveness as any mathematical proposition—even though . . . [they] lie entirely outside the limits of possible experience” (CPuR, A855=B883).

For Kant all of the fundamental concepts of philosophy—theoretical and pivotal alike—are mind supplied. But over and above the mere analysis of these concepts into their constituent conceptual components lies the

issue of the *synthetic* and yet experience-independent (i.e., a priori) bearing upon the experiential domain for whose systemization they provide the pivotal instrumentalities. And that working out of this systemization—the quintessential work of reason—cannot be done a priori where issues of institutive substance (in contrast to merely regulative proceedings) have to come into it.

The fallacy of taking something as a completed *product* of cognition in product where there is actually no more than some feature of the process of inquiry is described by Kant as “lazy reason” (*ignava ratio*). He lucidly describes it as encompassing “every principle which has us regard our investigation into nature, or any subject, as absolutely complete, inclining reason to cease from further inquiry, as though it had succeeded entirely in the task before it” (CPuR, A689=B717). And this process is as mistaken in philosophy as in the investigation of nature. For in metaphysics there are no securely established facts. There are only problems to be investigated and issues to be deliberated about. There are no established certitudes, only the “regulative ideas” of an ultimate systematization with certitude achievable only “at the end of the day”—a day whose sun may never rise.

4. Kant as a Neoplatonist

From his earliest metaphysical work on, Kant envisioned a Platonistically dualistic reality consisting of a sensible and an intelligible world. And he agreed with Plato that philosophical cognition of the realities of the intelligible is a work of reason distinct from its ordinary cognitive dealings (which Kant calls the theoretical reason, namely a *practical* reason relating to choice in matters of decision and action).

There are some dozen references to Plato in Kant’s *Critique of Pure Reason*, in particular over extended discussion (A313=B371 to A319=B375) of his theory of ideas or ideals. But in a way Kant turns Plato’s theory against him. For Kant saw philosophy itself not as a body of authentic knowledge (*epistēmē*) developed by means of dialectic as a useful means of inquiry but rather as the fondly envisioned but unrealizable end product of an inquiry whose unrealizability is manifest by a “dialectic” that—as far as the proof of philosophical theses is concerned—is destructive rather than constructive in its operation.

Ironically, the idea of dialectic plays a virtually opposed role in Plato and Kant. With Plato, dialectic was a matter of testing divergent views against each other to winnow out the truth of things. It is a matter of testing these and contentions by testing (*elegchō*) the strength of claims in the face of counter considerations. It is an instrumentality of conformation—of showing how a claim can melt the test of opposition. For Kant, by contrast, dialectic shows the equivalency of conflicting claims. It brings to light that every argument in favor of one side can be

countered by an equally weighty counterargument in favor of the other. It is in sum an instrumentality for refutation and invalidation. For Kant dialectical confrontation is not the avenue of truth determination and understanding. Dialectic is merely an avenue to mis-understanding.

Here the position of our two philosophers could not be more radically distinct and discordant. But there is also a very different aspect of the matter.

Kant insists in complete consensus with Plato that the task of philosophizing is to provide guidance for the conduct of life: "The philosophy which deals with the whole vocation of man is entitled moral philosophy. On account of the superiority which moral philosophy has over all other occupations of reason, the ancients in their use of the term 'philosopher' always meant more especially the *moralist*, and even at the present day we are led by a certain analogy to entitle anyone a philosopher who appears to exhibit self-control under the guidance of reason, however limited his knowledge may be" (CPuR, A839=867). And against the background of his position Kant deserves to be ranked as a Neoplatonist on two scores.

The first of these is not of concern in the context of the present discussion. The other, however, relates to the prominent role of the Platonic Ideas in the framework of Kant's Critical Philosophy. Kant himself is fully explicit and emphatic on this point throughout the discussion of "the Ideas in General" in Book I of the "Transcendental Dialectic." And as Kant elaborates his position we read:

Plato fully realized that our faculty of knowledge fills a much higher need than merely . . . [accounting for] experience. He knows that our reason naturally aspires to modes of knowledge which so far transcend the bounds of experience that no given empirical object can ever realize them, but which must none the less be recognized as having their own reality, and which are by no means mere fictions of the brain. . . . Plato found the chief instances of his ideas in the field of the practical, that is, in what rests upon . . . modes of knowledge that are a peculiar product of reason. Whoever would derive the concepts of virtue from experience and make (as many have actually done) what at best can only serve as an example in an imperfect kind of exposition. The *Republic* of Plato has become proverbial as a striking example of a putatively visionary perfection. . . . But it is not only where human reason exhibits originative causality, and where ideas are operative causes (of actions and their object), namely, in the moral sphere, but also in regard to nature itself, that Plato rightly discerns clear proofs of an origin from ideas. . . . It is, however, putatively in regard to the principles of morality, legislation, and religion—where the experience of the good, is itself made possible only by the ideas, incomplete as their empirical expression must always remain—that Plato's teaching exhibits its quite peculiar merits. (A314=B371 to A318=B375)

So much, then, for Kant's endorsement of the Platonic Ideas. And as he insists again and again, the postulative projection of ideals that is the

supreme work of creative reason is also the pivot of moral worth in human affairs and the basis of a free agent's claim to respect that lies at the basis of morality.

For a further—and at present salient—aspect of Kant's Neoplatonism pervades his discussion of the relationship that obtains between mathematics and philosophy. Here Kant emphatically agrees with Plato that—withstanding the eminently prominent significance of mathematics within the sphere of human cognition—it is philosophy that is preeminent and actually stands at the pinnacle of cognition. In this sense, Kant writes:

Whether the world has a beginning [in time] and any limit to its extension in space; whether there is anywhere, and perhaps in my thinking self, an indivisible and indestructible unity, or nothing but what is divisive and transitory; whether I am free in my actions, or like other being, am led by the hand of nature and of fate; whether finally there is a supreme cause of the world, or whether the things of nature and their orderer must as the ultimate objects terminate thought—an object that even in our speculations can never be transcended: these are questions for the solution of which the mathematician would gladly exchange the whole of his science. For mathematics can yield no satisfaction in regard to those highest ends that most closely concern humanity. (CPuR, A463=B491)

And Kant then goes on—in much the Platonic manner—to elevate philosophy above mathematics via the decidedly Platonic consideration that the philosopher tolerates no basic unexamined assumption, whereas the mathematician proceeds from axioms and postulations that are simply taken for granted as unquestionable and unquestioned givens. “Although I leave aside the principles of mathematics, I shall none the less include those [more basic] principles upon which the very possibility and *a priori* objective validity of mathematics are grounded. These latter must be regarded as the foundation of all mathematical principles. They proceed from concepts to intuition, not from intuition to concepts” (CPuR, A160=B199). And on just this basis Kant not only agrees with Plato as to the fundamental contrast between mathematical and philosophical reasoning but also proceeds, just like Plato, to see in this difference the ground and reason for being of the preeminent status of philosophy.

5. Final Comparisons

On this basis, then, Kant deserves to be regarded as a Neoplatonist of sorts. For not only does he assign to ideas and ideals a key role in the philosophy of knowledge, he insists on seeing philosophy itself—in the light of an ideal.

The currently pivotal consideration is that Plato and Kant both agree in thinking that the nature of philosophy is most clearly and instructively

revealed by contrasting its procedures and methods of investigation with those of mathematics. And there is substantial agreement in the way in which they implement this idea.

With both Plato and Kant mathematics proceeds top-down, moving from a secure basis (axioms, postulates, definitions) by deductively inferential steps to derived consequences. And by contrast, philosophy is bottom-up, moving from an uncertain manifold of discordant positions to secure an ultimately tenable result. In mathematics security comes at the starting point. In philosophy it is not a fixed and firm beginning but a hoped-for (and perhaps unattainable) end product. In mathematics the “first principles” indeed come first, but in philosophy they are last. In the terminology of a later age, these thinkers are foundationalists in mathematics but coherentists in philosophy. And this is a position that not only has the imprimatur of these great thinkers of the past but continues to make plausible sense at the present time of day as well.³

The consilience that obtains between Plato's and Kant's positions include in particular the following points:

- That the method of mathematics is deduction from certitudes (“hypothesized” in Plato, “introduced” in Kant). But they also agree that this sort of method will not work in philosophy.
- That in philosophy, unlike mathematics, the *force majeure* of stipulation, postulation, and definitional fiat has no appropriate place.
- That therefore the idea of proving or disproving one's contentions as accomplished facts is unachievable in philosophy.
- That the secure basis of assured fact from which our mathematical reasonings can proceed is accordingly lacking in philosophy.
- That in philosophy a more circuitous process of constructive or dialectical reasoning is thus required to substantiate one's claims. And accordingly
- That philosophy can validate its first principles only at the end of inquiry, not at its outset. This is accomplished through dialectical investigation (Plato) or through systematization (Kant).
- That the salient task of philosophy is the pursuit of systematic knowledge not for its own sake but for that of providing guidance to the conduct of life.

The consensus position of the two philosophical giants can thus be put in a nutshell. They both effectively agree—to put it in contemporary words—that a coherentist rather than foundationalist model of substantiation is in order in philosophy.

³ For an elaborate defense of this position see my *Philosophical Reasoning: A Study in the Methodology of Philosophizing* (Oxford: Blackwell, 2001).

With Plato, the winnowing process at issue is characterized as *dialectical*. With Kant it is characterized as *critical*. But both alike see it as characteristic of the difference between mathematics and philosophy, and as essential to securing the higher claims of the latter to cognitive excellence. And with Kant as with Plato philosophizing is not an inquiry that issues in a fixed body of knowledge but an intellectual enterprise whose greatest utility lies in the training of the mind (*paideia*) for the serious work of coming to grips with the nature of the world and our place within it.

In the end, then, Plato and Kant agree on a fundamental point of philosophical method that is at odds with the mathematico-demonstrative methodology of philosophy found in Spinoza and present in Christian Wolff. Both reject the axiomatic approach with its insistence on fundamental truths postulated from the outset. Both alike insist that philosophizing—unlike mathematics—is an exercise in theorizing where the question of basicness and foundations come to view only after the inquiry has gone on for a long, long time—and certainly not at its start.

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