Kant's Amphiboly[1]

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Many interpreters of the Critique of Pure Reason ignore Kant's anti-rationalist program or present it as much less significant than his attack on empiricism. Yet Kant probably thought of Leibnizian rationalism as the more pressing threat; the title of the work provides evidence for this. In this paper I will explore an important component of Kant's anti-rationalism, the argument of the Amphiboly of Concepts of Reflection. This argument has received little attention by the commentators, although G. H. R. Parkinson is a notable exception.[2] At the heart of this argument is Kant's criticism of Leibniz's view that the nature of any substance consists solely of intrinsic (i.e. non-relational) properties. I shall contend that Kant is not simply concerned to provide reasons for rejecting a peculiarity of Leibniz's metaphysics, but that his attack on intrinsicality aims at a conception that lies at the root of the Leibnizian position.

I

In the Critique of Pure Reason Kant argues against his opponents' larger theories by carefully attending to their views on mental representation. His argument against empiricism in the Transcendental Deduction is intended to show that experience requires a priori concepts as well as sensations. Conversely, Kant's argument against Leibnizian rationalism in the Amphiboly is meant to undermine the view that we represent the world by means of the intellect alone, and not in conjunction with sensibility. Leibniz, he maintains, "intellectualized appearances, just as Locke... sensualized all concepts of the understanding." (A271=B327) Instead of claiming that there are two irreducible sorts of mental representations, Leibniz "holds to only one of the two.... The other faculty is then regarded as serving only to confuse or order the representations which the selected faculty yields." (A271=B327)

Kant identifies the thesis that all representation is intellectual with the position that all representation is achieved solely by concepts and their faculty, the understanding. (A264=B320, A270=B326) Unfortunately, Kant's explication of these formulations is obscure. For illumination, we must look to the Leibnizian tradition, in which intellectual representation has several salient features. First, it is clear and distinct, in contrast with the confused and obscure character of sensation. Further, intellectual representation is innate and a priori. It also represents things as they really are, and not, as sensation does, merely as they appear. I shall argue that although Kant's target in the Amphiboly is not precisely Leibniz's picture of intellectual representation, it is a close approximation. Although Kant had access to some of Leibniz's own works, much of this approximation was likely passed on to him by Leibnizians like Wolff and Baumgarten. I shall call this target the conception of intellectual mastery of reality. It encompasses three related theses, which I shall discuss in order.

(i) The first thesis asserts that intellectual representation, when it is pure or ideal, provides maximal conceptual clarity and distinctness, and that all representation is implicitly purely intellectual in this way.[3] Sensations, apparently non-intellectual representations, are in actuality implicitly conceptually clear and distinct. To have a clear and distinct conceptual representation is to have the ability to recognize and specify the nature of a thing descriptively, or as Leibniz would have it, by means of definitions. (L 291=G IV, 423, cf. DM 24=G IV, 449-50; NE 254ff.) Hence, for sensations to have implicit conceptual clarity and distinctness means that implicit within sensations are elements that can provide the ability to recognize the object of the sensation and to define it with clarity and distinctness.

Kant's belief that Leibniz held that sensation is confused conceptual representation can be seen in his assertion that Leibniz

> compared all things with each other by means of concepts alone... The conditions of sensible intuition, which carry with them their own differences, he did not regard as

> original, sensibility being for him only a confused mode of representation, and not a separate source of representations. (A270=B327)

His view that according to Leibniz, the understanding, the faculty of concepts, can eliminate this confusion is evident in the next sentence:

> Such representation... brings (zieht) a certain mixing of subordinate representations (Vermischung von Nebenvorstellungen) in the concept of the thing which the understanding knows how to take away (abzusondern) from it. (A270-1=B326-7, cf. A43-4=B62-3)

What is it for the understanding to eliminate the confusion in a representation, or to make a representation conceptually clear and distinct? According to Leibniz, an idea or bit of knowledge is clear (the opposite of obscure) "when it makes it possible for me to recognize the thing represented." (Meditations on Knowledge, Truth, and Ideas, L 291=G IV, 422, cf. DM 24) It is distinct, as opposed to confused, when I can enumerate one by one the marks which are sufficient to distinguish the thing from others (L 291=G IV, 423, cf. DM 24=G IV, 449). An idea reaches a higher degree of distinctness when it is adequate, "when everything that enters into a definition or distinct knowledge is known distinctly, down to the primitive notions." (DM 24=G IV, 449) It is maximally distinct or intuitive "when my spirit grasps at the same time and distinctly all the primary ingredients of a notion." (DM 24=G IV, 449-50) To have a maximally clear and distinct idea of something, to have an ideal or purely intellectual representation of that thing, is to grasp a complete definition of the thing at once, in a single, unified cognition.

The view that all representations are implicitly conceptually clear and distinct illustrates the notion of intellectual mastery, since in this view any representation of a thing contains within it a complete conceptual characterization of that thing, including criteria distinguishing it from all other things. Implicit in any representation is a thorough conceptual grasp of the thing it represents.

Kant's attribution to Leibniz of the view that sensation is confused conceptual representation has been challenged by Robert McRae, G. H. R. Parkinson, and Margaret Wilson, who argue that

Leibniz anticipates Kant's view that conceptual abilities and sensations are two mutually exclusive types of mental representation, and so, they claim, Leibniz does not hold that sensations are confused concepts or thoughts.[4] Wilson maintains, for example, that although Leibniz thinks that sensations are confused, he does not regard them as confused conceptual representations, since he also believes that conceptual representations are different in kind from sensations.

Leibniz clearly specifies two different theoretical tasks for mental representations; they function as sensations and as conceptual capacities. But to demonstrate that Kant is wrong about Leibniz, these critics require a text that clearly indicates more than this. They need a text which shows that Leibniz distinguishes mutually exclusive types of representations according to role or task, and this I believe they fail to do. Kant does not deny that Leibniz acknowledges different roles for mental representations. Rather, his complaint is that Leibniz has a single type of mental representation perform the functions of both concepts and sensations.

Furthermore, as these critics acknowledge, there is positive textual support for Kant's interpretation. For instance, Leibniz says that

> it does not cease to be true that at bottom confused thoughts are nothing other than a multitude of thoughts which are in themselves like the distinct, but which are so small that each separately does not excite our attention and cause itself to be distinguished. We can even say that there is at once a virtually infinite number of them contained in our sensations. (G IV, 574-5, cf. DM 33=G IV, 458-9)

Contained in our sensations is a virtually infinite number of thoughts, so "small" that they are not consciously distinguished.[5] Given that there are no passages which clearly support the opposite view, Kant's interpretation has not been undermined.[6]

Yet Kant is mistaken in thinking that according to Leibniz the sensory "brings a certain mixing of subordinate representations into the concept of the thing which the understanding knows how to take away from it." (A270-1=B326-7, emphasis mine) Parkinson points out that in

the late 1670's and beyond Leibniz held that it is impossible for us to reach genuinely primitive concepts.[7] Some representations are too complex for our finite minds to discern their primitive components. Perhaps here we encounter a way in which Kant's picture is just an approximation of Leibniz's views. But Kant is right insofar as Leibniz does maintain that the primitive components are implicit within our representations.[8]

(ii) A second aspect of the claim that all representation is purely intellectual is that it is innate (and thus a priori in a genetic sense).[9] This makes all truths innate as well, if, as Leibniz believes, truth amounts to relations among representations. Hence, the second thesis of the conception of intellectual mastery of reality is that we have intellectual mastery over representations and the truths they constitute, because all representations are innate and truths are just relations among these representations.

Leibniz says in the Discourse on Metaphysics: "And nothing can be taught us of which we do not have in our spirit the idea, which is as the matter out of which this thought forms itself." (DM 26=G IV, 451)[10] To see how this doctrine of innate ideas manifests the ideal of intellectual mastery, contrast an innate idea with a Kantian empirical intuition or a Lockean sensory idea. According to Locke, which sensory ideas come to consciousness depends on contingencies of our circumstances that are often not under our control, or not easily so. Leibniz thinks that becoming conscious of an idea is not beyond our control in these ways. He says that Plato's example of the slave boy "shows that our soul knows all this virtually and needs animadversion [turning of the soul] to recognize truth, and therefore that it has at least those ideas upon which these truths depend." (DM 26=G IV, 452) The soul need only look within itself to find the ideas it seeks.

This last passage indicates that innateness guarantees that we have intellectual mastery not only over ideas, but also over the truths they constitute. Leibniz says that if our ideas are innate, "[The soul] may even be said to possess these truths already, if they are taken as relations of ideas." (DM 26=G IV, 452) Thus we have intellectual mastery of truths partly because we have

innate ideas, and because truth consists in relations among ideas or concepts. If truth is concept containment, knowledge requires only examining the relations among concepts within us.[11]

(iii) Finally, in Kant's reading of the Leibnizian tradition, the intellect, by proceeding beyond the confusion of sensation, reaches a point of view from which it can apprehend the nature of the world as it really is, and not merely as it appears. Hence, the third thesis of the conception of intellectual mastery is that reality conforms to intellectual representation. This thesis manifests the ideal of intellectual mastery because it asserts that reality is transparent for the intellect, that reality is tailor-made for the nature of the intellect as a faculty of knowledge.

The most general ways reality is transparent to intellectual representation in the Leibnizian tradition are that (1) intellectual representation reveals the nature of ultimate reality and (2) all features of ultimate reality can be grasped by intellectual representation. As we shall see, Kant's analysis in the Amphiboly has Leibniz relying on these claims. We might think of these claims as demands the intellect makes on reality. Another such demand that has a key part in Kant's account of the Leibnizian argument is that there can be no extrinsic properties without an intrinsic foundation. (A284=B340) Leibniz writes to De Volder: "there is no denomination so extrinsic that it does not have an intrinsic denomination at its basis. This is itself one of my important doctrines (kyriai doxai)." (L 526-7=G II, 240; cf. Cout. 9)[12] The reasoning behind Leibniz's view is that if nothing were intrinsic, then nothing would constitute the entity which stands in relations to other things, and so it would follow, absurdly, that there are relations without relata.

II

Kant's central anti-rationalist contention in the Amphiboly is that we do not have purely intellectual representations of objects. The position is expressed earlier in the Critique: "We demand that a bare concept be made sensible, that is, that an object corresponding to it be presented in intuition. Otherwise the concept would, as we say, be without sense, that is, without

meaning." (A239-240=B298-9: cf. A51=B75-6, Al56=Bl95) Kant's claim is that concepts alone, without sensible intuition, cannot yield a cognition of an object. (B148-9, A156=B195, A239-240=B298-9) The aim of the Amphiboly is to show why this thesis applies to cognitions of physical objects.

In the Amphiboly, Kant is engaged in what he calls transcendental reflection. As he somewhat obscurely puts it, transcendental reflection consists in comparing different types of objects of representations with one another to reveal the faculty, understanding or sensibility or both, employed in the representation of these objects. (A262=B3l8) In transcendental reflection, we discern the characteristics objects would have if we had purely intellectual or conceptual cognitions of them, and we compare these characteristics with those of the objects we actually experience. Kant thinks that this comparison allows us to detect four different discrepancies between characteristics objects would have if we had purely conceptual cognitions of them and the characteristics of the objects of actual experience. The existence of these discrepancies supplies an argument against Leibniz, because the thesis that cognition is purely conceptual fails to account for physical objects as we experience them. The discrepancies correspond to each of four pairs of concepts of reflection: identity and difference, agreement and opposition, intrinsic and extrinsic, and matter and form.[13] However, I shall consider only the intrinsic and extrinsic (das Innere und Äußere), because it is independent of the other pairs, while the they are parasitic on it.[14]

By definition, extrinsic properties are relational, and intrinsic properties are non-relational. For example, the chemical structure of a molecule of water is intrinsic to it, and in the Cartesian tradition thoughts are intrinsic properties of minds. Being the nearest planet to the sun in our solar system is an extrinsic property of Mercury. In order to understand the Amphiboly, it is important to see that some extrinsic properties have intrinsic aspects. For example, Sophie's being wise is extrinsic to her in that Sophie's having this property involves a relation to a comparison class. But it also contains an intrinsic aspect--Sophie's having some mental capacity

or other. Consequently, there is room for the notion of a purely extrinsic property: a property is purely extrinsic to a thing just in case it is extrinsic to it and contains no intrinsic aspects.

Let us now turn to the argument of the Amphiboly. In outline, it proceeds as follows: Kant maintains that according to Leibniz the natures of genuine substances are constituted solely by intrinsic properties. This thesis follows from rationalist intellectualism:

> Leibniz's monadology has no basis whatsoever save his mode of representing the distinction of intrinsic and extrinsic merely in relation to the understanding. Substances in general must have some intrinsic nature, which is therefore free from all extrinsic relations... (A274=B330, cf. A265=B32l, A283=B339)

Kant argues that physical substances do not have natures consisting solely of intrinsic properties, and concludes that the intellectualist thesis about mental representation is false. He then anticipates the Leibnizian objection that physical substances are just intentional objects of confused intellectual representations, and that this explains why they have extrinsic natures. Kant replies that the account of the genesis of physical objects by confusion is implausible, and that therefore his original conclusion is unaffected.

III

Let us examine this argument in detail. First, what are the connections between the thesis that all cognition is conceptual or intellectual and the claim about the intrinsicality of natures of substances? The main problem for the interpretation of the Amphiboly is that the nature of these links is unclear in the text.

(i) The most explicit connection emerges from the claim that extrinsic properties require intrinsic properties as a foundation:

> According to mere concepts the intrinsic is the substratum of all relational or extrinsic determinations. If, therefore, I abstract from all conditions of intuition and confine myself to the concept of a thing in general, I can abstract from all extrinsic relations, and there must

still be left a concept of something which signifies no relations, but intrinsic determinations only. From this it follows that whatever is a thing (substance) there is something which is absolutely intrinsic and precedes all extrinsic determinations... (A283=B339)

Indeed, Leibniz does argue that the Cartesian view that matter consists in nothing other than extension is rationally unsatisfying since extension is a purely extrinsic property. Being extended may seem to be an intrinsic property of a thing, but the extension of a thing is really extrinsic:

Nor do I think that extension can be conceived in itself, but I consider it an analyzable and relative concept, for it can be resolved into plurality, continuity, and coexistence or the existence of parts at one and the same time. Plurality is also contained in number, and continuity also in time and motion: coexistence really applies to extension only. (to De Volder, L 516=G II, 169-70)

Leibniz is arguing that the extension of a rock, for example, is nothing more than the plurality, continuity, and coexistence of its parts. These are all purely extrinsic properties. One might object that the parts have an intrinsic property which serves as the foundation for the extrinsic properties. But extension of the parts is subject to the same analysis as is the extension of the original body. An indefinite regress results. The reason extension is purely extrinsic is that the extension of something is reducible to the purely extrinsic properties of plurality, continuity, and coexistence of parts. In the analysis of extension, one never encounters an intrinsic property.

Leibniz believes that the Cartesian theory does not meet the intellect's demand that there be some intrinsic property which makes the merely extrinsic properties of matter characteristic of something substantial:

But it would appear from this that something must always be assumed which is continuous or diffused, such as the white in milk, the color, ductility, and weight in gold, and resistance in matter. For by itself, continuity (for extension is nothing but simultaneous continuity) no more constitutes substance than does multitude or number, where something is necessary to be numbered, repeated, and continued. So I believe that our thinking is completed and

> ended in the concept of force rather than in that of extension. (L 516=G II, 170, cf. L 435ff=GM VI 234-54)

Leibniz's response is to ascribe an intrinsic property, force, to matter. He continues the above passage by saying, "And we need seek no other concept of power or force than that it is the attribute from which change arises, and whose subject is substance itself." Leibniz maintains that the force in matter, derivative force, is phenomenal, as is matter itself, but that derivative force has its foundation in primitive force, which is an intrinsic property of substance. Primitive force is the tendency of a substance, a monad, to pass from one perception to another in a law-governed manner. (G II, 275) Hence, force as an intrinsic property of substance is required for matter to be real.[15]

Although there is textual evidence that Kant had this first link in mind, it is implausible that the starting point of this link, the claim that all extrinsic properties require intrinsic ones, exhausts the thesis that all cognition is purely intellectual. We should look to one or more of the remaining theses of the conception of intellectual mastery for a more complete account. Since textual evidence establishing other links is not plentiful, some reconstruction is required. I have two suggestions.

(ii) The first employs the concept-containment theory of truth and the corresponding notion of cognition. By a purely conceptual cognition, Kant may well mean one that consists solely in relations among concepts. Leibniz says:

> Always, in every true affirmative proposition, whether necessary or contingent, universal or particular, the notion of the predicate is in some way included in that of the subject. Praedicatum inest subjecto: otherwise I do not know what truth is." (to Arnauld, L 337=G II, 56)

In "First Truths," after making the same claim, Leibniz goes on to say that many features of his metaphysical system follow. Among them is the thesis that any extrinsic properties of a substance have their bases in intrinsic properties. (L 268=Cout. 519-20) Consider an ideal

Leibnizian intellectual cognition, one which involves all of the concepts or predicates of a subject. Given the concept containment theory of truth, this is a cognition of a proposition consisting of a subject concept which contains the predicate concepts. Leibniz believes that his thesis about intrinsicality results:

> It follows further that there are no purely extrinsic denominations which have no basis at all in the denominated thing itself. For the concept of the denominated thing involves the concept of the predicate. Likewise, whenever the denomination of a thing is changed, some variation has to occur in the thing itself. (L 268=Cout. 519-20)

Substances are thus ontological correlates of propositions that describe them completely.[16] Another aspect of the conception of intellectual mastery is plausibly at work here, that ultimately real things conform to intellectual cognitions. Just as the subject concept contains all of the predicate concepts within it, the properties for which the predicates stand have an intrinsic foundation in the nature of the substance.[17]

Yet in Leibniz's view, only God has the ability to provide the conceptual analysis for contingent truths. So, one might object, the concept- containment theory of truth does not present a sense in which our cognition is purely conceptual. But, according to Leibniz, a complete conceptual analysis is nonetheless implicit in human knowledge of contingent truths:

> In contingent truths, however, though the predicate inheres in the subject, we can never demonstrate this, nor can the proposition ever be reduced to an equation or an identity, only God being able to see, not the end of the analysis indeed, since there is no end, but the nexus of terms or the inclusion of the predicate in the subject, since he sees everything which is in the series. (L 265, F de C 178-85)

So if the natures of things are isomorphic to human conceptual representations, they will yet be constituted solely of intrinsic properties.

Consider a related objection: Kant identifies purely conceptual cognition with intellectual cognition. However, there is no evidence that the concepts in the truths about individuals are

intellectual. But, in reply, for Leibniz implicit in every concept of a thing there is a purely intellectual, non-sensory, conceptual analysis of that concept. God can produce this analysis a priori, independent of sensory experience, although humans cannot:

> God seeing the individual notion or haecceity of Alexander sees in it at the same time the foundation and reason of all the predicates that can be truly said of him, as for example that he would conquer Darius and Porus, even to the point of knowing from it a priori (and not by experience) whether he died as natural death or by poison, which we can only know by history. (DM 8=G IV, 433)

Still, a human representation of a contingent proposition is intellectual in that its conceptual analysis is in principle knowable without sensation.

A third objection to this reconstruction is that Kant could not have read "First Truths," the Arnauld correspondence, the Discourse on Metaphysics, nor any work of Leibniz's in which the concept-containment theory of truth is clearly presented. None of these works had been published when Kant wrote the Critique of Pure Reason. But Christian Wolff, whom Kant thought of as a Leibnizian, presented the concept containment theory of truth in writings which were available to Kant. In his Logica, Wolff defines truth as "the determinability of the predicate by the notion of the subject" (§513), and he says that "...he understands the truth of a proposition who perceives how the predicate is determined through those things which are contained in the notion of the subject." (§516)[18] Yet although Kant had access to the concept containment theory of truth, one might question whether he could have conceived the connection between concept-containment and the thesis about intrinsicality without having read "First Truths" or the Discourse on Metaphysics.

(iii) A second reconstruction appeals to the view that things with intrinsic natures are more intellectually manageable than those with partially extrinsic natures. Although this reconstruction does not have thorough textual support, I believe that it is much more natural than the theory of truth link between intellectual mastery and intrinsicality, and that Kant quite

plausibly had it in mind. This reconstruction is also has the advantage that it forges a link based on the first thesis of the conception of intellectual mastery of reality, that genuinely intellectual representation provides conceptual clarity and distinctness, and that all representation is implicitly intellectual in this way. This is surely the most plausible sense in which all cognition might be purely conceptual. Furthermore, as we shall see, Kant clearly has this first thesis in mind when he constructs Leibniz's objection to his argument. It would be odd if this thesis played no role in the argument to begin with.

This view, that natures with only intrinsic properties are more intellectually manageable than those with extrinsic properties, is not idiosyncratic. One sees it, for example, in Jerry Fodor's claim that mental properties important for cognitive science cannot be relational to anything outside of the individual mind, because otherwise cognitive science would be intellectually beyond our reach.[19] Fodor traces his position back to the Cartesian view of the mind, a position also motivated by intellectual manageability. Descartes assumes in the Real Distinction proof in the Sixth Meditation that we can discern the complete nature of the mind simply by turning our careful attention towards it alone, ignoring any relations it has to things outside of it. (AT VII, 78) This Cartesian view of the mind appears in the text of the Amphiboly. Kant says Leibniz models all substance on mind because the mind is the only clear example of something whose nature consists just in intrinsic properties:

> As object of pure understanding, on the other hand, every substance must have intrinsic determinations and powers which pertain to its intrinsic reality. But what intrinsic accidents can I entertain in thought, save only those which my inner sense presents to me? They must be something which is either itself a <u>thinking</u> or analogous to thinking. For this reason Leibniz, regarding substances as noumena, took away from them, by the manner in which he conceived them, whatever might signify extrinsic relation, including also, therefore, <u>composition</u>, and so made them all, even the constituents of matter, simple subjects with

> powers of representation--in a word, MONADS. (A265-6=B32l-2, cf. A274=B330, A283-4=B339-40)

Kant believes that the intellectual attractiveness of the Cartesian picture of the mind, a mind whose nature consists in intrinsic features alone, motivates Leibniz to take it as the model for all substances.

An especially Leibnizian version of the third link might look like this: All representation is intellectual in virtue of its implicit conceptual clarity and distinctness. Furthermore, real things conform to intellectual representation. Consequently, real things conform to implicit clear and distinct conceptual representation. But if this is so, then it is possible to gain knowledge distinguishing a real thing from any other real thing. If a thing's nature consisted partly in extrinsic properties, it might be distinguished from another thing only in virtue of one of these extrinsic properties, such as its location in space. But if that were so, it would be difficult to have distinct knowledge of it, since its relations to other things would have to be examined. Thus, if a thing is a good subject for clear and distinct knowledge, it must have an intrinsic nature.

Let us now turn to Kant's opposing claims about substances. He argues that science and ordinary experience conflict with the Leibnizian position on the nature of physical objects, and that therefore the view that all mental representation is at root purely intellectual is undermined.

IV

Kant maintains that matter consists in extrinsic properties not inhering in any Leibnizian substance and not founded on anything intrinsic:

> All that we know in matter is merely relations. What we call the intrinsic determinations of it are intrinsic only in a comparative sense (ist nur komparativ innerlich), but among these relations some are self-subsistent and permanent, and through these we are given a determinate object. (A285=B34l)

One might have suspected that for Kant force would be an intrinsic property, as it is for Leibniz. (L 445=GM VI, 246) But all properties of matter, substantia phaenomenon, even its apparently intrinsic properties, are extrinsic: "It is quite otherwise with a substantia phaenomenon in space; its inner determinations are nothing but mere relations, and it itself is entirely made up of mere relations." (A265=B321, cf. Ak IV, 543) In the next sentence: "We are acquainted with substance in space only through forces which are active in this and that space, either bringing objects to it (attraction), or preventing them penetrating into it (repulsion and impenetrability)" (A265=B321), Kant mentions force as something in matter, so for him force, contra Leibniz, is an extrinsic property. In Kant's view, which is inspired by Newton, force is an extrinsic property because it is a relation among points. In the section on dynamics in the Metaphysical Foundations of Natural Science, Kant argues that there are precisely two kinds of force, attractive and repulsive; attractive force is by definition the cause by which two points recede from one another, and repulsive force is by definition the cause by which two points approach one another. (Ak IV 498-9)

Kant believes that Leibniz's position not only conflicts with the best scientific position, but also with the ordinary view. Evidence for this can be found in his discussion of the other concepts of reflection. For example, in the ordinary view there is real causal interaction among physical objects, and the existence of these interactions entails that the things which interact have extrinsic properties. (A265=B320-1, A274=B330, A282=B338) Also, intuitively, there could be distinct physical objects which share all of their intrinsic properties, like two drops of water. (A263-4=B319-20) But according to Leibniz, there could not be two such distinct objects because if they share all of their intrinsic properties they share all of their properties, and thus are not distinct. (A263-4=B319-20, A271-2=B327-8, A281-2=B337-8)

In summary, the conception of intellectual mastery yields the Leibnizian intrinsicality thesis. But, this thesis must be rejected in virtue of results from physics and ordinary beliefs about the physical world. Thus, the conception of intellectual mastery must be rejected as well. However,

there is a Leibnizian response to the argument. Let us examine this response, and Kant's answer to it.

V

Kant recognizes that a problem with the intrinsicality argument is that Leibniz would admit the spatio-temporal character of objects in experience to be roughly what Kant says it is. Leibniz agrees that in experience we are presented with appearances and not things in themselves. He might even concede that the natures of objects of appearance are constituted by extrinsic properties, even though the monads underlying the objects of appearance are not. This is consistent with maintaining that all representation is purely intellectual, because, in accordance with the first thesis of the conception of intellectual mastery, representations of physical objects are confused intellectual representations. So Leibniz would reply in this way: "My conception of intellectual mastery of reality does have the consequence that the natures of all real substances, monads, are constituted by intrinsic properties. And physical objects do not have natures constituted in this way. But, physical objects are merely appearances of real substances. I can rescue my contention that all representation of physical objects is purely intellectual by claiming that it is confused intellectual representation, confused representation of real substances. The explanation for physical objects not having natures constituted by intrinsic properties is that they are intentional objects of confused intellectual representations."[20]

Kant's response to Leibniz takes aim at the theses that perceptions of physical objects are confused intellectual representations and that physical objects are nothing more than the intentional objects of such representations:

> That which space and time seem to possess as proper to themselves, in independence of things, he ascribed to the confusion in their concepts, which has led us to regard what is a mere form of dynamical relations as being a special intuition, self-subsistent and antecedent to the things themselves. Thus space and time were for him the intelligible form of the

> connection of things (substances and their states) in themselves: and the things were intelligible substances (substantiae noumena). And since he allowed sensibility no mode of intuition peculiar to itself but sought for all representation of objects, even the empirical, in the understanding, and left to the senses nothing but the despicable task of confusing and distorting the representations of the former, he had no option save to treat the [intellectualized] concepts as being likewise valid of appearances. (A275-6=B33l-2, cf. A43-4=B60-2, A270-1=B326-7)

Kant maintains that Leibniz's view about the relation between monads and their appearances is untenable; representations of physical objects cannot be confused intellectual or conceptual representations. He makes this claim not only in the Critique, but argues for it more thoroughly in On a Discovery, a work written in 1790 in opposition to an unfavorable review of the Critique written by a Leibnizian, J. A. Eberhard.

In the Amphiboly, Kant's argument amounts to little more than repetitions of the charge that Leibniz "left to the senses nothing but the despicable task of confusing and distorting the representations of the [intellect]." (A275=B33l-A276=B332) Parkinson suggests that Kant is expressing opposition to the supposed implication of Leibniz's theory that sense experience is superfluous to understanding nature, and that such understanding can be acquired a priori, but Kant is not clear in the Amphiboly, nor anywhere else in the Critique about why he rejects the Leibnizian view.[21]

Kant's arguments in On a Discovery, however, are more effective; two of them supply leverage against the Leibnizian position. In the first, Kant claims that his opponent's view has the consequence that confusion is essential to the science of space and of things in space. Without confusion there would be no representation of space nor of spatial things, and this, Kant believes, detracts too much from the integrity of natural science:

> From the incapacity, the weakness, and the limits of the faculty of representation (the exact expressions which Mr. Eberhard uses) one can derive no extension of knowledge, no

> positive determination of the object. The given principle must of itself be something positive, which constitutes the substrate for such propositions, although only subjectively, and which only has objective validity in respect to appearances.... [H]ow will he derive such a positive knowledge, which contains the conditions of the most extensive a priori sciences (geometry and universal physics) from these limits, from unclarity, and therefore from mere deficiencies? (Ak VIII, 220)

Beliefs which essentially involve confused representations cannot amount to knowledge. But geometry and universal physics are paradigmatic bodies of knowledge. Consequently, they do not involve confused representations. Kant's argument reflects a plausible realist intuition about physical objects, and consequently provides an interesting argument for his position. The thesis that physical objects are intentional objects of representations, characterized by a particular level of confusion, leaves this intuition unaccounted for. Kant's vehement rejection of this view manifests his belief that the sciences of physics and geometry are ultimate in some way.

Nevertheless, the difference between Kant and the Leibnizians is only one of degree. For Kant, as for Leibniz and his followers, geometry and physics are sciences of appearances, not of things as they are in themselves. Kant's position reflects an attempt to chisel out a status for these sciences that is as high as possible given that their objects are only appearances. This he achieves, somewhat paradoxically, by suggesting that intentional objects of sensibility only in part result from ultimately real things in the noumenal world. A representation of an object of sensibility is not just an imperfect representation of an ultimately real thing:

> ...even if our senses were sharpened and our imagination strengthened so as to grasp the manifold of its intuition with consciousness, we would not therefore, on account of the clarity of this representation, perceive something non-sensible. (Ak VIII, 218, cf. A44=B62)

Rather, the forms of intuition and the synthetic activity of the understanding are essential to an explanation of the existence of these objects of sensibility. These objects do not owe their

existence to imperfections of mind, but to mental faculties with excellences of their own, to "something positive." (Ak VIII, 220)

The focus of the second argument in On a Discovery is the Leibnizian project of explaining the genesis of representations of a spatio-temporal world from aspatial and atemporal monads:

> If we grant to Mr. Eberhard his simple parts of the objects of sensible intuition, and allow him to explain, in the best manner he can, their combination in accordance with his principle of sufficient reason, how and through what conclusions will he draw from his concept of monads and their connection through forces, the representation of space? How, for instance, will he be able to explain that space has three dimensions, and that of its three kinds of limit, two are themselves space, while the third, namely, the point, is the limit of all limits? Or, in respect to the objects of inner sense, how will he determine their underlying condition, time, as a magnitude, albeit only of one dimension, and (like space) as a continuous magnitude, from his simple parts, which in his opinion are perceived by the senses, although not separately, but which are conceived to be there by the understanding?... He must regard all of these properties as false and merely invented (for they contradict the simple parts he accepts)... (Ak VIII, 220-l)

Leibniz is not silent on this issue: the spatial and temporal ordering of appearances expresses an order in the monads. But, according to Kant, what is lacking is an explanation of why an expression of an order in monads would be spatial or temporal at all. More precisely, what is missing is an explanation of how representations of phenomena with temporal and spatial dimensions can result from representations of objects without such dimensions, and I believe Kant is right about this. Kant believes that without introducing a contribution of the mind such an account is inconceivable.

Let us summarize and conclude the argument. Leibniz's picture of ultimate reality, according to which substances have natures consisting in intrinsic properties, is derived from the conception of intellectual mastery. But this picture of substances conflicts with the world which

experience presents to us. Physical objects do not have natures consisting in intrinsic properties. Thus, there is prima facie reason for rejecting the various aspects of the conception of intellectual mastery that yield the intrinsicality thesis. Kant anticipates the Leibnizian response that we can explain experience as the confused intellectual representation of ultimately real substances. Kant argues that this explanation cannot account for the integrity of science, nor for the spatio-temporal character of objects of experience. Hence, Leibniz fails to show that the conception of intellectual mastery of reality does not imply that physical objects have natures constituted by intrinsic properties. Since physical objects do not have natures constituted by intrinsic properties, the original conclusion holds: the aspects of the conception of intellectual mastery which yield the intrinsicality thesis are mistaken.

VI

Kant, indeed, rejects the various aspects of the conception of intellectual mastery. First, he opposes the view that all our representations are implicitly conceptually ideal. Kant believes that we cannot have purely conceptual knowledge of physical objects and, therefore, that there is an irreducibly nonconceptual or intuitive element in such knowledge. This intuitive aspect is nonconceptual since our knowledge of physical objects cannot be exhaustively explicated by descriptions or, as Leibniz would put it, by definitions. In Kant's view, our cognitions contain two sorts of nonconceptual elements: sensation and forms of intuition.

Second, Kant rejects the view that reality conforms to intellectual representation. Physical objects are real, yet they cannot be represented purely intellectually or by means of concepts alone. Things in themselves are ultimately real, but we cannot have any cognition, let alone intellectual cognition of their complete natures. Perhaps God can know things in themselves purely intellectually, but our conceptual representation is not even the sort that can provide us with knowledge of things, and certainly not of things in themselves. No matter how clear and

distinct our concepts become, they would never represent objects, neither appearances nor things in themselves.

In the Amphiboly, Kant examines the intellect's demand that intrinsic properties must ground the reality of extrinsic properties. He admits that there is something unintuitive about his own view that all of the properties of matter are relational or extrinsic: "It is certainly startling to hear that a thing is to be taken as consisting wholly of relations." (A285=B341) But he attempts to explain away this apparent implausibility: "Such a thing is, however, mere appearance, and cannot be thought through pure categories: what it itself consists in is the mere relation of something in general to the senses." (A285=B34l) Since matter is mere appearance, matter need not have intrinsic properties as its foundation. By providing this explanation, Kant indicates that he does not thoroughly reject the claim that intrinsic properties must ground the reality of extrinsic properties. For if he completely rejected it, he would not need to explain the plausibility of matters's being purely extrinsic by saying that it is only appearance.

Finally, Kant opposes the doctrine of innate ideas and the concept-containment theory of truth. His rejection of the Leibnizian theory of truth is familiar from the discussion of the analytic/synthetic distinction in the Introduction to the Critique. (A6-10=B10-14) Kant not only believes that empirical truths are synthetic, but that mathematics is as well. (B14-17) His rejection of the Leibnizian doctrine of innateness is evident in his view that sensory matter for knowledge is acquired by affection. But furthermore, Kant even rejects the position that the categories and the forms of intuition are innate. In On a Discovery he writes that "the Critique admits of no divinely implanted (anerschaffene) or innate (angeborne) representations. It regards them all, whether they belong to intuition or to the concepts of the understanding as acquired (erworben)." (Ak VIII, 221) Kant goes on to say that, nevertheless, the forms of intuition and the synthetic unity of the manifold in concepts are acquired in a special way:

> There is, however, an original acquisition (as the teachers of natural right formulate it), consequently also of that which previously did not exist, and therefore did not pertain to

> anything before the act. Such is, as the Critique shows, first of all, the form of things in space and time, secondly, the synthetic unity of the manifold in concepts; for neither of these is derived by our faculty of knowledge from the objects given to it as they are in themselves, but rather it brings them out of itself a priori. (Ak VIII, 221-2)

Although Kant is not very illuminating on the nature of this original acquisition, he does add:

> There must, however, be a ground in the subject which makes it possible for these representations to originate in this and no other manner, and which enables them to be related to objects which are not yet given. This ground at least is innate. (Ak VIII, 221-2)

Thus, although Kant maintains that the a priori concepts and the a priori intuitions are not innate, he does acknowledge that an innate capacity or source accounts for the genesis and nature of these representations. But since the empiricist tradition arguably also allows for innate capacities and sources, even here Kant is making no significant concession to Leibnizian rationalism.[22]

NOTES

1. Texts cited in this paper:

Immanuel Kant: For the Critique of Pure Reason, **A** indicates the first edition, **B** indicates the second edition. These citations are taken, with some alterations, from Immanuel Kant's Critique of Pure Reason, tr. Norman Kemp Smith, (London: Macmillan, 1929)**. Ak**, Immanuel Kant, Kant's gesammelte Schriften, edited by the Königliche Akademie der Wissenschaften and its successors, (Berlin: George Reimer (subsequently W. de Gruyter), 1902-). Quotations from Ak IV are from the Metaphysical Foundations of Natural Science in Immanuel Kant, Philosophy of Material Nature, translated by James W. Ellington, (Indianapolis: Hackett Publishing Co., 1985). Quotations from Ak VIII are from Henry Allison's translation of On a Discovery in The Kant Eberhard Controversy, (Baltimore: Johns Hopkins, 1973).

A. G. Baumgarten: Acroasis Logica (Magdeburg: Hemmerde, 1773); Metaphysica (Magdeburg: Hemmerde, 1739).

René Descartes: **AT**, Oeuvres de Descartes, edited by Ch. Adam and P. Tannery (revised edition, Paris: Vrin/C.N.R.S., 1964-76).

G. W. Leibniz: **DM**, Discourse on Metaphysics, tr. Peter G. Lucas and Leslie Grint, (Manchester: Manchester Univ. Press, 1953), citations are by section numbers; **Cout.,** Couturat, Louis, Opuscules et Fragments inédits de Leibniz, (Paris, 1903); **F de C**, Foucher de Careil, Nouvelles lettres et opuscules inedits de Leibniz, (Paris, 1857); **G**, G.W. Leibniz, Die philosophischen Schriften, edited by C. I. Gerhard, 7 vols., (Hildesheim: Olms, 1965); **GM**, Mathemathische Schriften, edited by C. I. Gerhard, 7 vols., (Berlin and Halle, 1849-55); **L**, Philosophical Papers and Letters, translated and edited, with an introduction, by Leroy E. Loemker, second edition, (Dordrecht and Boston: D. Reidel Publishing Company, 1969); **NE**, New Essays on Human Understanding, translated and edited by Jonathan Bennett and Peter Remnant, (Cambridge, 1981). The pagination is from Nouveaux essaies sur l'entendement humain, edited by André Robinet and Heinrich Schepers, (Berlin: Akademie-Verlag, 1962).

Christian Wolff, **Cogitationes Rationales**, Cogitationes Rationales De Viribus Intellectus Humani, in Christian Wolff, Gesammelte Werke II. Abt. Lateinische Schriften, Band II, ed. Jean École, (Hildesheim: Georg Olms Verlag, 1983); **Logica**, Philosophia Rationalis sive Logica, Pars II. in Christian Wolff, gesammelte Werke, II Abt. Lateinische Schriften, Band 1.2.

2. G. H. R. Parkinson, "Kant as a Critic of Leibniz: The Amphiboly of Concepts of Reflection," Revue Internationale de Philosophie 35 (1981).

3. Kant had access to this tradition through Wolff and also Baumgarten, who writes, "An intellectual cognition is a cognition to be cognized by the intellect, and therefore a distinct cognition..." (Cognitio INTELLECTUALIS est cognitio per intellectum cognoscenda: ergo cognitio distincta et philosophica.) Logica §30. Also, in Baumgarten's Metaphysica §632 we find connections among the notions of intellectual cognition, conceptual cognition, and distinctness: "Repraesentatio rei per intellectum est eius CONCEPTIO. Hinc CONCEPTIBILE est, cuius distincta formari potest perceptio..." (A representation of a thing by the intellect is conceptio. Hence [that] is conceptibile of which a distinct perception can be formed...). Baumgarten's definitions of clarity and distinctness are presented in his Acroasis Logica §§14-16, and Wolff's in Cogitationes Rationales §§9-18. None of these formulations assert that intellectual representation need be maximally clear and distinct. Room is left, as seems plausible, for some confusion in the intellect.

4. Robert McRae, Leibniz: Perception, Apperception, and Thought, (Toronto: Univ. of Toronto Press, 1976), pp. 126ff.; G. H. R. Parkinson, "The Intellectualization of Appearances: Aspects of Leibniz's Theory of Sensation and Thought," in Leibniz: Critical and Interpretive Essays, Michael Hooker, ed., (Minneapolis: Univ. of Minnesota Press, 1982); Margaret Wilson, "Confused Ideas," Rice University Studies Vol. 63, No.4, Fall 1977.

5. Wilson points out a text (G IV, 422-3) where Leibniz "runs together the two main senses of 'confused' that [she has] distinguished." McRae provides passages that conflict with his position. (G IV, 563; G IV, 574-5, which I have just quoted)

6. In addition, these critics provide fairly complex arguments based on passages from Leibniz that do not explicitly make the Kantian distinction between two sorts of representation. I do not believe that these arguments are sound, or that they are sufficiently supported by the texts, but I shall have to argue this elsewhere.

7. G.H.R. Parkinson, Leibniz, Logical Papers, (Oxford: Clarendon Press, 1966), pp. xxvii-xxviii, 51-2; "On Freedom," L 263, F de C 178-85.

8. For instance, Leibniz says in the New Essays:

> ...we are not to blame for the confusion which reigns among our ideas, for this is an imperfection in our nature: to be able to pick out the causes of odours and tastes, for instance, and the content of these qualities, is beyond us. (NE 255-6)

9. For a discussion of Kant's various notions of apriority, see my "Kant on the Justification of Transcendental Philosophy," Synthese 85, October, 1990.

10. The Discourse on Metaphysics was not published until the nineteenth century, but Kant could have known that Leibniz held the view that all ideas are innate from the discussions of the doctrine of pre-established harmony in Monadology 61-2 (L 649=G VI, 617) and in New System 14-5 (L457-8=G IV, 484-5).

11. In Logic and Reality in Leibniz's Metaphysics (Oxford: Oxford Univ. Press, 1965), Parkinson argues that the concepts referred to in the concept containment theory of truth are God's and not ours (pp. 11-14), yet this text seems to indicate otherwise. Also, Kant had no access to a work of Leibniz's in which the concept containment theory of truth is presented, but he could have known of it through Wolff (see section III).

12. John Earman, in "Perceptions and Relations in the Monadology," Studia Leibniziana, Band IX (1977), p. 223, links this doctrine very closely to the concept containment theory of truth. But as David Wong argues in "Leibniz's Theory of Relations," Philosophical Review LXXXIX, No. 2 (April 1980), there is more to the doctrine than this. Wong thinks that the doctrine of intrinsic foundations does entail that there is a deducibility relation between the extrinsic and the intrinsic

properties of a substance, but not one that makes the doctrine the same as the concept containment theory.

13. Kemp-Smith translates 'das Innere' as 'the inner,' 'innerlich' as 'inner' or as 'inward,' and 'inneres' as 'internal.' In the interests of uniformity, and since the term 'intrinsic' is the current equivalent in the discussion of Leibniz, I have revised his translation accordingly. Similarly, Kemp-Smith renders 'das Äußere' as 'the outer' and 'äußere' as 'outer'; I have substituted 'the extrinsic' and 'extrinsic.'

14. Kant says that the third pair of concepts of reflection, intrinsic and extrinsic, is basic "Leibniz's monadology has no basis whatsoever save his mode of representing the distinction between the intrinsic and the extrinsic merely in relation to the understanding..." (A274=B330). It is more fundamental than identity and difference (A263-4=B319-20, A272=B328) and agreement and opposition (A274-5=B330-1). I suspect that there is no deep difference between the third pair and the fourth, matter and form.

15. This argument does not show that purely intellectual cognition leads to the intrinsicality of all properties of the nature of a substance, since the intellect demands only that extrinsic properties be founded on intrinsic ones. But Kant thinks that it does establish this result (A283=B339). I doubt that there is conclusive evidence that Kant is right about Leibniz on this issue (cf. David Wong, "Leibniz's Theory of Relations").

16. C. D. Broad, Leibniz: An Introduction, (Cambridge, 1975).

17. Perhaps Leibniz also motivates the concept containment theory of truth by the Principle of Sufficient Reason (DM 8, L 307=G IV, 432-3), although in "First Truths" the derivation goes the other way around (L 268=Cout. 519-20, see also Noel Fleming, "Leibniz on Subject and Substance," The Philosophical Review, XCIV, No. 1 (January 1987), pp. 69-95).

18. Wolff might have gotten the concept-containment theory of truth from Leibniz through conversation, or perhaps Leibniz showed him manuscripts of works which contain the theory.

19. Jerry Fodor, "Methodological Solipsism Considered as a Research Strategy in Cognitive

Psychology," in Representations, (Cambridge: MIT Press, 1981).

20. See Robert M. Adams, "Phenomenalism and Corporeal Substance in Leibniz," in Midwest Studies in Philosophy, 1983, (Minneapolis: University of Minnesota Press), pp. 217-257.

21. G. H. R. Parkinson, "Kant as a Critic of Leibniz: The Amphiboly of Concepts of Reflection," p. 310.

22. I wish to thank Robert Adams, Tyler Burge, Edwin Curley, Charles Guignon, Robert Hall, Richard Healey, Hilary Kornblith, William Mann, Marleen Rozemond, and George Sher for helpful comments and discussion.