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Interrelations: Concepts, Knowledge, Reference and Structure

Christopher Peacocke

What are the relations between the items mentioned in my title? This question is raised by Jerry Fodor's discussion in his paper 'Having Concepts' of the general species of view "according to which concept possession is epistemic, dispositional and normative".¹ Jerry calls such views 'concept pragmatism', and argues that they are thoroughly mistaken. He takes my own view, at least as given in *A Study of Concepts*, to be an instance of the type he aims to refute.² Some of Jerry's criticisms, such as the charge that my views cannot explain compositionality, would be decisive if correct. I am to address such criticism head-on. Other criticisms, having to do with the epistemic and the normative, seem to me best considered in the presence of more distinctions, and a correspondingly wider range of theoretical options than Jerry advances. It would be possible to spend a lifetime on these apparently inexhaustible and fundamental issues (I am already on the way to doing so). On the wider issues, all I can hope to do here is to argue in support of one particular conception of these interrelations.

Epistemology and the Theory of Concepts

How, to take the first and second items on the list in the title, should we conceive of the relations between the theory of knowledge and the philosophical, constitutive theory of concepts? In the matter of priority in the order of philosophical explanation, there are three live possibilities:

¹ 'Having Concepts; A Brief Refutation of the 20th Century' this journal, pp.XXX-YYY, at MS.p.2.

² *A Study of Concepts* (Cambridge, Mass.: MIT Press, 1992)

(i) Epistemology is prior in the order of philosophical explanation to the theory of concepts.

(ii) The theory of concepts is prior in the order of philosophical explanation to epistemology.

(iii) Neither is philosophically prior to the other but each relies, explicitly or implicitly, on distinctions drawn from the other.

Jerry regards a commitment to (i) as a core feature of what he calls ‘concept pragmatism’. I myself reject each of the priority claims in (i) and (ii), and endorse the claim (iii). Claim (iii) we can label as a no-priority claim with a commitment to interrelations.

There is a general argument against (i), the priority of epistemology, an argument that is independent of the various considerations Jerry marshals. There are many pairs of examples involving belief states that have the following feature. To explain why one member of the pair involves knowledge, and the other does not, we need to appeal to distinctions drawn from the theory of concepts. A perceptual experience can make it rational, in certain circumstances, to judge that a presented object falls under an observational concept, but not under a theoretical one. The observational judgement can amount to knowledge, and does so because a willingness to apply the concept in the given circumstances is mentioned in its possession condition. Similarly, a perceptual experience can make it rational to judge that a presented object falls under one but not under a second observational concept, precisely because the experience is of a kind mentioned in the possession condition for the first, but not for the second concept. This is the case for the now-hoary pair of concepts *square* and *regular-diamond-shaped*. A judgement that a tile is square may in such perceptual circumstances be knowledge, while the judgement that the tile is a regular diamond is not.

Again, a premise can make it rational to accept a conclusion involving a given logical constant, while not making it rational to accept a logically equivalent conclusion. This too can be a case in which one of the conclusions is knowledge, and the other is not. The plausible explanation is that the possession condition for one of the logical constants

involved in the first conclusion mentions transitions to such conclusions from such a premise, while there is no such mention for the second conclusion.

Similarly, if Descartes is in pain, and suffering from amnesia, after an accident, he can know that he is in pain, and not know whether Descartes is in pain. The natural explanation of the difference involves a difference in possession-conditions. The possession condition for the concept *pain* mentions the thinker's willingness to make first-person applications of the concept in the presence of the thinker's own pain. The possession condition will not mention third-person ways of thinking such as that involved even in Descartes' own concept *Descartes*.

The existence of cases in which one can explain the boundaries of knowledge only by drawing on features of concept-possession already suffices to show that epistemology cannot be explanatorily prior to the theory of concepts. We should, however, aim for a deeper understanding than is given just by examples. Why are there such examples, and is there some more general phenomenon that they illustrate? There are various hypotheses of increasing generality that one might propose at this point, but one salient and highly general hypothesis is that the very nature of the kind of entitlement to judge a given content that is involved in knowledge is to be given in part in terms of the possession conditions of the content judged. This idea is included in what in recent years I have called 'the Second Principle of Rationalism'. It states that the rational truth-conduciveness of any given transition to which a thinker is entitled is to be philosophically explained in terms of the nature of the intentional contents and states involved in the transition.³ This is no place to argue again for that principle. Here I simply note that anyone who accepts the arguments for such a principle could not consistently also accept that epistemology is philosophically explanatorily prior to the theory of concepts.

Should we then think that the theory of concepts is philosophically explanatorily prior to epistemology, that is, accept option (ii) above? On any approach under which concepts are individuated by their possession conditions, the individuation of concepts

³ "Three Principles of Rationalism", *European Journal of Philosophy* 10:3 (2002), 375-397, and Chapter 2 of *The Realm of Reason* (Oxford: Oxford University Press, 2004).

will involve the notion of judgement. I would argue that there is a basic kind of judgement, which can be called 'outright judgement', which is not a matter of degree. It is part of the nature of such judgement that it aims at knowledge. If this is correct, the theory of concepts cannot be explanatorily prior to epistemology.

There are many points at which this reasoning could be questioned. I will in particular address the objection that though outright judgement aims at knowledge, this is a consequence of the nature of outright judgement, and does not imply that judgement cannot be explained philosophically without mentioning knowledge. According to this objector, judgement aims at rational acceptance of truths. Fulfilling this aim may bring knowledge in its train, but the aim is specifiable without mentioning knowledge. Hence, the objection runs, option (ii) is still in the field.

I reply that rationality itself cannot be elucidated without reference to knowledge. What it is rational to do and to think depends on what you know and what you seem to know. I doubt that 'know' in this claim can be replaced by 'judge' without reduction of significance. A rational person's outright judgements and other actions must always be sensitive to evidence that he does not really know the contents which he is judging, outright, to be the case. Such sensitivity is precisely what one would expect if outright judgement aims at knowledge.

Such in very briefest outline are some of the reasons that option (ii) does not seem to be correct. I suggest that we ought to hold the no-priority view (iii). This is not to imply that one cannot write possession conditions for particular concepts that do not explicitly use the notion of knowledge. On the contrary, the possession conditions that I wrote out in *A Study of Concepts* were all formulated in terms of outright judgement, not knowledge. But these conditions still involve the notion of knowledge off-stage if outright judgement has to be elucidated in terms of knowledge. Clauses in the possession condition for a concept may involve the epistemic, and also have consequences for the epistemic, even if they do not explicitly employ the notion of knowledge.

The Normative Dimension: A Flirtation with Idealism?

Jerry writes “If concept possession is an intrinsically epistemic condition, then mental states are intrinsically subject to epistemic evaluation. And, plausibly, evaluability implies the possibility-in-principle of an evaluator. So the facts to which psychology is supposed to be responsible are interpretation-dependent...A fortiori, the facts of psychology are somehow *mind*-dependent in a way that the data of geology are not. This kind of flirting with idealism is part of what makes concept pragmatism bona fide pragmatist” (MS 4). He goes on to mention Donald Davidson as someone clearly in the target area of this argument.

I argue that recognizing the normative dimension of concept possession does not have to involve any commitment to interpretation-dependence, nor to the mind-dependent character of norms, or of correctness in psychological ascriptions. The normative dimension of concept possession is a consequence of the fact that one of the constitutive aims of judgement is truth. Suppose that the possession conditions for the concepts composing a given conceptual content p are such that they jointly imply that in given circumstances a thinker will be willing to judge outright that p . If semantic values are assigned to concepts in such a way as to ensure that judgements made in accordance with the possession conditions for concepts come out true, then p will be true in those given circumstances. This way of assigning semantic values seems to be required if judgement, constitutively, aims at truth. If the judgement could be false in these circumstances, then it could not rationally be required of thinkers that they be willing to make the judgement in these circumstances, and a formulation of the possession conditions for concept that says they should be so willing would be incorrect.

If a judgement's truth in given circumstances is guaranteed by the very way semantic values are assigned to its constituents, it seems that being in those circumstances is as good a position as one could be in for knowing that content to be true. If this reasoning is sound, circumstances which make outright judgement of a content rational, on the basis of the possession conditions of the concept involved, will also yield knowledge of the content. So from a starting point involving just considerations of judgement, its aim, semantic value and rationality, we can draw conclusions about conditions for knowledge.

This account of what makes judgement in accordance with a possession condition function as an epistemic norm does not make any mention of an evaluating person or thinker, and does not involve any commitment to mind-dependence of the norms involved. The norms are a consequence of the nexus of relations between truth, judgement, semantic value, and concepts. An evaluator can evaluate in accordance with these norms, but the evaluator is responsible to the norms if his assessments are to be correct. Their correctness does not consist in matters of how he would evaluate.

When developed in the right way, the epistemic and normative aspects of a possession condition have the resources to address the problem about sorting that Jerry raises. Jerry says that it is an inadequate form of theory to say of a concept *C* that to possess it involves the ability to sort *C*s from other things. This ability will not distinguish possession of the concept *C* from distinct concepts that are a priori coextensive with it. He notes that trying to remedy this by adding that the sorting capacity in question is the ability to sort *C*s as *C*s is circular and unexplanatory. I wholly agree on both points.

Theories of concepts that hold that some reasons for applying a concept contribute to the individuation of that concept can explain the difference between possessing one, rather than another, of two distinct but a priori equivalent concepts. They can explain this difference even in the case of perceptual concepts. Take once again the case of the property

(a) of being a right-angled quadrilateral of equal-length sides that is symmetrical about the bisectors of its opposite sides, and

(b) of being a right-angled quadrilateral of equal-length sides that is symmetrical about the bisectors of its opposite angles.

Properties (a) and (b) are a priori coextensive. But a thinker can see an object as having property (a) without seeing it as having property (b). A thinker can also see an object as having property (b) without seeing it as having property (a). These specifications of the contents of the seeings-as are statements of the nonconceptual representational content of

the experience.⁴ Though the two experiences lead to the discrimination, or sorting, of exactly the same-shaped things, the different experiences contribute to the individuation of distinct perceptual concepts, the concepts *square* and *regular-diamond-shaped* respectively. An experience of an object as symmetrical about the bisectors of its angles can give reason to apply the second concept to an object without in itself giving reason to apply the first concept to the same object. Possession conditions of the sort I have been proposing have no difficulty distinguishing a priori coextensive cases, even in the perceptual case.

Epistemic Constraint, Reference and Compositionality

Jerry and I agree that systematicity and productivity are non-negotiable features of conceptual content. We diverge in our views of the source of these features. He has long regarded them as empirical matters of psychological law, and still does so, while I hold them to be a priori features of contents composed from concepts.⁵ But whatever their source, we agree that theories that are incompatible with this systematicity and productivity must be rejected. Jerry's striking claim is that this ground for rejection applies to epistemically-constrained theories of concepts.

Jerry's argument proceeds from the case of recognitional concepts. A thinker may have the capacity to recognize *F*s as such, and the capacity to recognize *G*s as such. But if the circumstances in which these recognitional capacities are exercised are different, and are maybe even mutually exclusive, then the thinker may not have the capacity to recognize *FG*s as such. In this sense, recognitional capacities do not compose. Jerry is clearly right on this point. In a nutshell, Jerry's argument from this point outwards is then that since recognitional capacities don't compose, but concepts do, concepts can't be

⁴ For more on non-conceptual content, see my paper "Does Perception have a Nonconceptual Content?", *The Journal of Philosophy* **98** (2001) 239-64.

⁵ Jerry's views on this issue are in his book *Psychosemantics: The Problem of Meaning in the Philosophy of Mind* (Cambridge, Mass.: MIT Press, 1987), and mine are in *A Study of Concepts*.

recognitional capacities, nor any other epistemic capacities for which there is such a failure of compositionality. As Jerry puts it, of the theory he labels ‘BCP’ (bare-bones concept pragmatism), “... epistemic capacities don’t themselves compose. But BCP says that there are epistemic conditions on concept possession. So BCP isn’t compatible with the compositionality of concepts. So BCP isn’t true.” (MS p.14).

I object: the agreed sense in which recognitional capacities do not compose is not the sense in which concepts do compose. The crucial point is that the composition of concepts is to be explained at the level of reference, or, better, at the level of semantic value:

For a complex concept to consist of the concept A conceptually composed with B (for it to be identical with $A \wedge B$) is for the following to hold: the fundamental condition for any entity to be the semantic value of the complex concept $A \wedge B$ is for that entity to be the semantic value of the concept A applied to the semantic value of B .

This formulation presupposes a Fregean framework in which, at the level of semantic value, functional application is the only operation corresponding, at the level of semantic value, to composition. That characteristic of the Fregean framework is evidently not compulsory, but in any acceptable framework there will be something playing the role which functional application plays in the Fregean account. That is, in any acceptable semantic framework, the following will still be the case:

for something to be the complex concept $A \wedge B$ is for there to be some operation R on semantic values such that the fundamental condition for an entity to be the semantic value of $A \wedge B$ is for it to stand in the relation R to the semantic values of the concepts A and B respectively.

This condition is still formulated wholly at the level of reference and semantic value.

It follows that an account of what it is for a recognitional concept to feature as one constituent of a complex concept has to distinguish two steps. First, there is the step that

explains how a recognitional capacity contributes to the fixing of a possession condition for a concept. Second, there is the step of explaining how this possession condition plays a role in fixing the condition for something to be the semantic value of the concept. When this second step has been taken, we have everything we need for the concept to be a constituent of complex concepts, and for productivity and systematicity to obtain.

In describing the first step, it is important to respect the fact that there is always more to a recognitional concept than a recognitional capacity. The relation between recognitional capacity and recognitional concept involving it is one-many. One and the same recognitional capacity can contribute to the individuation of many different concepts. I can recognize flowers, but my recognitional concept *flower* is to be distinguished from all of these: *flower-seen-by-me*; *flower-seen-by-someone-or-other*; *flower-in-my-light-cone*; and so forth. Yet the same basic capacity to recognize flowers contributes to the individuation of each of these concepts, for each of which one could formulate possession conditions that treats them as unstructured. Someone who possesses our concept *flower* has not only a capacity to recognize flowers as such, but also has the tacit knowledge that for any object in the universe, it is a flower if and only if it is of the same botanical kind as those he can recognize. (The concept *flower* arguably has all the indeterminacies that this condition imports.) This is different from the tacit knowledge involved in grasping the condition for something to be a *flower-seen-by-me*; it is different again from the tacit knowledge involved in grasping the condition for something to be a *flower-seen-by-someone-or-other*; and so forth.

The second step to be characterized is that of the fixing of a condition for something to be the semantic value of a concept with a possession condition that involves a recognitional capacity. This is an instance of the general task of providing what, in *A Study of Concepts*, I called a Determination Theory for a concept. For a recognitional concept, the condition for an object to be in the extension of such a concept is that it both actually be of a kind that triggers the recognitional capacity in question, and that it meets the additional requirement in the content of the tacit knowledge involved in possession of the recognitional concept in question. Which objects meet this conjunction condition depends on how the world is - which is why, for such concepts, sense determines reference only in combination with the way the world is.

An overarching and constraining role is played here at many points by the classical idea, present in Frege and rightly emphasized by Dummett, that a sense is individuated by the condition for something to be its reference (or, better, as always, its semantic value).⁶ A possession condition, in the context of a Determination Theory, fixes a sense only because it determines a condition for something to be the semantic value of the sense. This is how recognitional concepts fix a sense by the means just described, and why they differ from recognitional capacities.

The classical idea also explains why we have fully given the nature of conceptual composition when we have specified how the semantic value of the complex concept depends on that of its constituents. In giving that specification, we supply the fundamental condition for something to be the semantic value of the complex. This is precisely, under the overarching constraint, what is required to individuate the complex sense.

Foundering on the Failure of the Analytic/Synthetic Distinction?

Jerry argues that no principled reason has ever been given for classifying some proposition as analytic, and that no one has ever said what analyticity consists in. Jerry may be surprised by the extent of my agreement with his points about the analytic/synthetic distinction. The reason that this agreement can exist without incoherence is that we ought to distinguish very sharply between a theory of the analytic and a theory of the a priori. An attack on the applicability and the very intelligibility of the notion of the analytic, the idea of truth purely in virtue of meaning, is not thereby an attack on the applicability and intelligibility of the a priori. In fact, many of the points Jerry makes in the present paper have been emphasized by those defenders of the a priori (myself included) who reject the applicability and intelligibility of the notion of the analytic.⁷

⁶ See especially *The Interpretation of Frege's Philosophy* (London: Duckworth, 1981).

⁷ See in particular my paper "How Are A Priori Truths Possible?", *European Journal of Philosophy* 1 (1993) 175-199.

The approach to concept possession that I have advocated does involve a commitment to the notion of the a priori. The intuitive notion of the a priori is that of something which can be known in a way that is justificationaly independent of perceptual experience. There are several parameters in this intuitive characterization that can be set differently (experience could be widened to include imagination, or all mental states), but it contains the core ideas on which all the variants are based. It is one thing to have an intuitive characterization, and another to have some theoretical understanding of how the intuitive characterization can be instantiated. I think the a priori is possible only because certain principles and transitions are mentioned in the possession condition for a given concept, and semantic values are assigned to that concept in such a way as to make these principles and transitions true or truth-preserving respectively. This approach immediately founds a priori status in relations that involve reference and relations to the world. I am wholly in agreement with Jerry that many of the principles thought to be analytic are not a priori, and in many cases not even true. The idea that they were a priori went hand-in-hand with acceptance of incorrect possession conditions for the concepts in question. Better formulations of the possession conditions will also give a better delineation of which principles and transitions really are a priori.

These remarks are intended only as a delineation of the position in logical space that I intend to be occupying. Arguments will continue over particular cases, as they will over possible alternative explanations of the phenomenon of the a priori.⁸ My point here is just that the Quinean critique of analyticity, both in its epistemological and its constitutive aspects, does not carry over to those approaches to the a priori which reject the notion of analyticity.

Understanding, Implicit Conceptions, Implicit Definition

⁸ For an utterly different, non-factualist approach to the a priori, see Hartry Field's paper 'Apriority as an Evaluative Notion', repr. in his *Truth and the Absence of Fact* (Oxford: Oxford University Press, 2001).

In some respects, Jerry is closer to my position, and in other respects further from it, than he represents himself as being. In the mid-1990s, my views on concept-possession changed somewhat, in ways reflected in a series of papers.⁹ I became convinced that there are phenomena that cannot be accommodated within the strict framework of *A Study of Concepts*. One such phenomenon I called the phenomenon of new principles. This phenomenon consists in the fact that for some concepts, a thinker can come, rationally, to appreciate that a new principle, which essentially contains a given concepts, and which does not follow from those he already accepted, is correct for the concept for the concept he possessed all along. The discovery of new axioms, emphasized in Gödel's philosophical writings that became more widely available in the second half of the 90s, is one instance of this phenomenon.¹⁰ But the phenomenon does not have to involve anything of high sophistication. Even the validity of the rule of or-elimination can come as news to someone who has used the concept of alternation for many years, as anyone who remembers teaching logic is likely to be able to attest.

The bearing of such facts on the theory of *A Study of Concepts* is multiple. First, even some primitive rules like or-elimination seems to be rationally reached on the basis of a thinker's understanding of alternation. This is a state of affairs that is simply not provided for in the theory of that book. The theory needed to be revised to provide a theory of understanding that does permit what is actually the case. Second, that revised theory had better be accompanied by a better account of how semantic value is determined from possession conditions than simply the older view that the semantic value

⁹ See "Implicit Conceptions, Understanding and Rationality", in *Reflections and Replies: Essays on the Philosophy of Tyler Burge*, ed. M. Hahn and B. Ramberg (MIT Press, 2003); also in *Concepts*, ed. E. Villaneuva, volume 9 (1998) of *Philosophical Issues* (Atascadero, Ca.: Ridgeview), 43-88; "Implicit Conceptions, the A Priori, and the Identity of Concepts", also in Villaneuva's collection, pp. 121-148; "Explaining the A Priori: The Program of Moderate Rationalism", in *New Essays on the A Priori*, ed. P. Boghossian and C. Peacocke, (Oxford: Oxford University Press, 2000), 255-85.

¹⁰ K. Gödel, *Collected Works Volume III: Unpublished Essays and Lectures* (New York: Oxford University Press, 1995).

makes truth-preserving the various rules and transitions the thinker finds primitively compelling. If even undervived rules do not have to be found primitively compelling by a thinker, that account will underdetermine the correct semantic value. A better account has also to say how a semantic value is determined (together with the world) from the condition for understanding. The improved account has to do so in such a way that newly discovered axioms are correct – correctness being something at the level of semantic value – for the newly discovered axioms.

Already, any theory which accommodates these points will be in agreement with two of the points Jerry makes. One point of agreement is that sometimes a principle is accepted because a thinker possesses a given concept, and this can be a genuine explanation. A second point of strong agreement is that simply being able to give an implicit definition of a concept is not yet to give a theory of understanding (a theory of concept-possession). If someone can possess the concept, but not yet accept, and have to engage in rational thought, before accepting some part of an implicit definition, that sort of acceptance cannot be what possession of the concept consists in.

In fact I am much more sceptical than Jerry of the possibility of implicit definition even in the case of some logical concepts (the lack of scepticism on Jerry’s part is not a crucial feature of his position). The problem is especially acute in the case of negation. What kind of implicit definition of negation emerges from Gentzen’s sequent calculus? In the case in which we have no formulae in the antecedent, and only one negated formula in the succedent, all we obtain from Gentzen’s rules is that that is something obtainable from the following transition between sequents: from

$$A \Rightarrow \emptyset$$

to

$$\emptyset \Rightarrow \sim A.$$

I follow Kleene’s well-known notation.¹¹ ‘ $\Gamma \Rightarrow \Delta$ ’ means that if all elements of Γ are true, then at least one element of Δ is true. We allow specifications of sets of sentences by

¹¹ See S. C. Kleene, *Mathematical Logic* (New York: Wiley, 1967) esp. Chapter 6. The displayed transition is negation-introduction on the right, as given on p. 289 of Kleene’s book, in the case in which the sets Γ and Θ are empty.

listing their members; and \emptyset is the empty set. The displayed transition is obviously correct, but does it really give a means of introducing negation that does not involve some prior use either of negation, or of falsity? Construed as part of an implicit definition, this characterization tells us that $\sim A$ is true just in case: if A is true, some element of the empty set is true. This will give one a satisfactory implicit definition of the negation of A only in the presence of the information that it is not the case that something is an element of the empty set. No problem with that! – but how is this sufficient condition for the truth of a negation even to be formulated without using the notion of negation, falsity or something cognate? If it cannot be so formulated, we do not after all have a negation-free implicit definition of negation in the Gentzen rules.

To the best of my knowledge, some form of this problem affects all attempts to give an implicit definition of negation. This is not to say that Gentzen's rules are wrong: on the contrary, they are obviously correct. Nor is it to say that the Gentzen sequent calculus does not provide important insights. The insights it provides, however, are not those of a set of implicit definitions, but of a contribution to proof-theory.

I suggested that we can account for the phenomenon of new principles if we acknowledge that certain concepts are such that to possess them is to have an implicit conception. An implicit conception is a subpersonal mental state with a content that specifies the conditions under which the concept applies. Evidence that a thinker has one implicit conception rather than another can be multiple and various. One important source of evidence is the factors that are causally influential in leading the thinker to apply the concept. A thinker may misdescribe the conditions under which he applies a concept, and may even find them hard to articulate at all. The conditions may be given in reductive terms, as seems to be possible for some concepts. In other cases, such as that of negation, I doubt that any reductive specification is possible at all.

How do implicit conceptions give an explanation of the phenomenon of new principles? The content of an implicit conception which is operative in explaining a person's application of a concept may entail the correctness of a new principle that the thinker had not previously acknowledged, and which may come as a discovery for him. This explanation is available only if we also accept that the semantic value of a concept whose possession consists in having an implicit conception has its semantic value fixed

thus: it is the entity (of the appropriate category) which satisfies the condition given in the content of the implicit conception. With that background in place, there will not merely be new principles that are implied by the content of the implicit conception. Those new principles will also be true.

Both in the case of a concept for which there is an implicit conception, and in the case of a concept for which a possession condition can be given in the form advocated in *A Study of Concepts*, I continue to identify meeting the possession condition with knowing what it is for something to be the semantic value of the concept. The notion of knowing what it is for something to be the semantic value of a concept is important in several ways. It is important in elucidating what it is for a transition in thought to be rational, from the thinker's own standpoint. A transition is rational, from the thinker's own point of view, when he is in a position to know that it is truth-preserving, on the basis of his knowledge of what it is for something to be the semantic value of the crucial concept or concepts involved in the transition.

This apparatus bears upon the possession condition for the logical concept of conjunction, which Jerry discusses in some detail. The concept of conjunction is a special case, because two very different things coincide for it. One is knowing what it is for something to be the semantic value of the concept. The other is finding primitively compelling those transitions that have to be found compelling in order to possess the concept. There does not seem to be any more to knowing what it is for something to be the semantic value of the concept of conjunction than finding inferences of the form of the introduction and elimination rules primitively compelling. There are no new principles essentially involving conjunction, or truths involving conjunction, that are left unexplained by the condition that the semantic value of conjunction is the truth-function for which these rules are always truth-preserving. But from the fact that we need no more in capturing understanding and the determination of semantic value than the principles which must be found primitively compelling in this particular case of conjunction, it by no means follows that we do not need more in the case of other concepts. For this reason, it can be dangerous to take the possession condition for conjunction as a paradigm.

Jerry does not think that even the formulation of the possession condition for conjunction that I offered in *A Study of Concepts* is correct. I address his objections briefly, while trying not to become what the British courts condemn as a ‘vexatious litigant’.

(i) Jerry emphasizes that role in valid inferences should not be confused with role in a thinker’s psychological economy; and of course I agree. My approach to the philosophical theory of concepts has involved an attempt to link these two distinct things in some cases via a theoretical claim, about how semantic value of a concept is determined by a certain psychological role, possibly in combination with the way the world is. In the case of conjunction, my claim is that we can specify that role without presupposing the thinker’s possession of the concept of conjunction (subject to having answers to Jerry’s other objections). The psychological role in question is certainly not devoid of intrinsic connections with other intentional matters. Thinkers have some grasp of the inferential transitions they are making as aiming at truth-preservation. Hence my answer to Jerry’s question ‘compelling as what?’ is: compelling as transitions furthering the goal of accepting only what is true. Nonetheless, the characterization of a target concept as one for which a thinker finds what are in fact instances of the introduction and elimination rules for conjunction to be compelling, and does so because they are of a certain form, still does not seem to me to import circularity into the characterization of grasp of the target concept. If the semantic value of the concept is then fixed as the function that makes transitions of those forms always truth-preserving, those transitions involving that concept will really be truth-preserving. The explanation of why they are so does not involve a commitment to the applicability of the idea of ‘validity purely in virtue of form’. Truth and semantic value play an essential part in this account.

(ii) Jerry wonders what notion of form I could possibly have in mind when I say that someone who possesses the concept of conjunction finds certain inferences compelling by virtue of their form. I agree that thinkers do not have to have any grasp, even tacit, of the distinction between logical and non-logical concepts in order to possess the concept of conjunction (and I agree it would not serve any of my purposes to suggest that they do). But I do not see any insuperable difficulty of principle in the notion of a Fregean Thought as having a certain form. Each Fregean Thought has a tree-like

structure, one which Frege would say mirrors the structure of the sentence that expresses it. Any such tree-like structure may be analyzed in many different ways. There is no such thing as ‘the’ form of a Fregean Thought, any more than there is such a thing as ‘the’ form of a structured sentence. Different analyses may bring out different relationships between constituents, and all of these relationships may be real. It is this notion of form to which I was intending to appeal when I said that conjunction is a concept C such that thinkers must find inferences of the form pCq / p to be primitively compelling because of their form. I think that some appreciation of this form is also psychologically real. When one makes an inference of this sort, one is aware of the form, even if nonconceptually so. It is in the phenomenology of conscious thought (with a small ‘t’). I also do not doubt that the only way that mental states with such structured Thoughts as their contents can exist, and be causally influential, is for something like Jerry’s hypothesis of a subpersonal language of thought to exist.

The state of possessing a given concept, whether that state consists in possession of an implicit conception, or whether it involves a possession condition of the form given in *A Study of Concepts*, is a state that can be causally explanatory; and not merely under some façon de parler, or in some Grade B idiom. Possession of the concept itself, and not just some realizing state, can be causally explanatory of judgements, understanding, rational acceptance of new principles, appreciation of the rationality of a judgement, and much else. Possession of the concept has explanatory powers, powers in particular to explain content-involving phenomena, that no mere realizing state can reproduce. I regard this point as an instance of a lesson learned from the better twentieth-century literature. Indeed some of the most important core points are made in Jerry’s own discussion of explanation in the special sciences, in *The Language of Thought*.¹² Someone might try to combine the account of possession conditions that I have been developing with the sort of unexplanatory pure dispositionalism that Jerry criticizes in ‘Having Concepts’. Such a dispositionalism would be a gratuitous add-on, not at all required by the theory of concepts itself. In this respect, the ‘concept pragmatism’ that is Jerry’s target is a package whose elements are, in my view, best unbundled from one another, and the dispositionalism should be discarded in any case.

¹² New York: Thomas Crowell, 1975.

For the record, I also regard particular mental events with conceptual content, whether those events are conscious or unconscious, as real elements of the causal order, which can explain other mental and non-mental events and states of affairs. Their possessing the conceptual content they do can also be the property in virtue of which they explain what they do.

In this area, as in others, it is very important to distinguish dispositionalism from relational individuation. Possession of a given concept is a relationally individuated state, in the sense that what makes it the state it is has to do with what judgements and transitions in thought that a thinker is willing to make, when nothing interferes. But a relationally individuated state can be a categorical one, and not something merely counterfactual or dispositional. These are metaphysical distinctions that obviously need more theory, but I think they are involved in our conception of genuine explanation. These distinctions are implicated if we hold that concept-possession is a causally explanatory state.

I conclude with a comment about the ‘Cartesian’ view of concepts that Jerry presents in this paper as a rival treatment to my own views and their ilk. Jerry writes “To have the concept DOG is to be able to think about dogs as such; and, conversely, to be able to think about dogs as such is to have the concept DOG” (MS p.3). It seems to me that these are neutral points about concepts that will be accepted by any theory that allows that concepts have references, and essentially feature in the contents of thinkings – that is, by any theory that is not a non-starter. It is entirely consistent with these neutral points that the concepts themselves are actually individuated by their possession conditions.

New York University