

PAUL LIVINGSTON

HUSSERL AND SCHLICK ON THE LOGICAL FORM OF EXPERIENCE

ABSTRACT. Over a period of several decades spanning the origin of the Vienna Circle, Schlick repeatedly attacked Husserl's phenomenological method for its reliance on the ability to intuitively grasp or see essences. Aside from its significance for phenomenologists, the attack illuminates significant and little-explored tensions in the history of analytic philosophy as well. For after coming under the influence of Wittgenstein, Schlick proposed to replace Husserl's account of the epistemology of propositions describing the overall structure of experience with his own account based on the structure of language rather than on the intuition of essences. I discuss both philosophers' accounts of the epistemology of propositions describing the structure of experience. For both philosophers, this epistemology was closely related to the general epistemology of logic; nevertheless, neither philosopher had a completely coherent account of it. Comparison of the two approaches shows that perennial and severe theoretical obstacles stand in the way of giving an epistemology of the structure of experience, a central requirement for both philosophers' theories. Consideration of these obstacles sheds a new light on the reasons for the historically decisive split between the continental and the analytic traditions, as well as on the subsequent development of the analytic tradition away from the structural description of experience.

Beginning in the early twentieth century, the idea that our sensory experience of the world has a specific logical structure or form became the basis for a variety of prominent epistemological projects. Most significantly for the subsequent development of twentieth-century philosophy, the idea of a connection between the structure of experience and the logical form of knowledge was shared between Husserl's phenomenology and the logical positivism of Schlick and the Vienna circle. But the two schools' agreement on the outlines of the general project of scientific epistemology concealed the wide differences of philosophical attitude and aim between them; and it was precisely on the question of the epistemology and ontology of the logical form of experience that phenomenology and logical positivism would first publicly diverge, in a dispute between Schlick and Husserl conducted over a long period spanning the origin of the Vienna Circle. In the debate, questions about the logical form of experience increasingly became the source of a web of methodological and thematic disagreements concerning the nature of conceptual analysis, the epistem-



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ology of logic, the relation of experience to meaning, and the origin of semantic categories.

Though it first came to philosophical prominence only around the turn of the century, the idea of the logical form of experience is a straightforward one. It is natural to suppose that the relations of similarity and difference, inclusion and exclusion, among the sensory qualities that comprise the manifold of experience can be represented in a single, structural account. Such an account will be *logical*, moreover, in that it helps establish or reveal the structure of such categories as we bring to any description of, or based on, our experience of the world. In one sense, of course, the structure of our experience is contingent, dependent on the physiological constitution of our particular sensory apparatus and neurological equipment; but there is another sense of the “structure of experience” in which such structure plausibly figures as a precondition of any proposition we will understand as describing a possible experience, or any item of knowledge supposed to be based on experience. Construed in this second way, the structure of experience has something like the necessity of logic, and the propositions describing it are correspondingly *a priori*.

Historically, aside from its obvious importance to pure phenomenological description, the project of elucidating the logical structure of experience bore, for Schlick and the logical empiricists, particular relevance to the prospects for scientific epistemology. For given the empiricist assumption that all scientific knowledge begins with experience, a schematization of the logical grammar of the base-level terms of description of experience is a necessary condition for epistemology’s account of the relations of inference between propositions capturing basic experiences or observations and the higher-level inferences to which they give rise. The hope for such a schematization in particular invited realization in terms of the logical positivists’ most original suggestion for the nature of the *a priori*: that all *a priori* propositions might be analytic consequences of conventional stipulations and definitions together with the logical rules governing their linguistic use. If the rules defining the structure of experience could be treated as logical, then the *a priori* character of propositions about it could be explained without metaphysical commitment; and the purely structural nature of such a description would make good the positivist’s claim to deal only in formal terms, without having to make any reference to the purely qualitative, private, or subjective *content* of experience itself.

The idea of the logical structure of experience thus became an essential backdrop of the Vienna Circle’s most innovative hopes for scientific epistemology; based on these hopes, Schlick launched a series of attacks

on Husserl's competing phenomenological picture of experience and logic from 1910 to the early 1930s. The immediate focus of Schlick's attacks was Husserl's reliance on the method of *Wesenschau* or 'intuition of essences' and its claim to yield a distinctive realm of synthetic (rather than analytic) *a priori* propositions describing the nature and structure of experience. Despite Schlick's significant misunderstandings of Husserl's position, his attack isolated a genuine point of difference between the two philosophers on a set of issues with precipitous consequences for the subsequent development of the analytic tradition and its self-imposed alienation from phenomenology and its descendants.

In this essay, I argue that the idea of the logical structure of experience represents a deep source of tensions for the philosophical views and methodological programs of both Schlick and Husserl, with important consequences for the subsequent development of both of their projects. For each philosopher's program, a picture of the relation between experience and logic performed the important function of licensing the application of a general methodology of logical analysis to empirically based theories; accordingly, comparative examination of the two pictures sheds a great deal of light on the methods, aims, and contrasting strengths of the two styles of analysis. After rehearsing, in section I, the official grounds and development of Schlick's attack, I consider, in section II, the extent to which the programs of Schlick and Husserl can justifiably be understood as variations on a single project of 'conceptual analysis.' I conclude that despite the potential of agreement on many particular results, Husserl's phenomenological description and Schlick's linguistic analysis differ widely in their understanding of the epistemology and ontology of concepts and logical structure. In the particular case of the logical structure of experience, I argue in Section III, Husserl's doctrine of *Wesenschau* indeed left him unable to explain the origin of our concepts of experience without incurring a substantially more metaphysically involved picture than Schlick's, and his failure to connect the structure of experience directly with the structure of meaning left him unable to accommodate Schlick's best insight about it – that the structure of experience operates as a constraint, not only on possibly experienceable states of affairs, but on the linguistic possibilities of meaning as well. Nevertheless, I argue in section IV, Schlick's own linguistically-oriented theory has its own problems; in particular, Schlick's understanding of logic does not give him the resources to explain the special connection between the structure of experience and the basis of linguistic meaning that he made the core of his attack on Husserl. Finally, in Section V I consider the nature of the underlying difficulty that leads to both philosophers' problems with the structure of experience; I conclude

that the idea of the logical structure of experience, though necessary for both systems and inextricably bound up with their particular methodological aims and possibilities, contains a deep and probably unresolvable incoherence. This incoherence troubles any attempt to theorize the logical structure of experience; but owing to its origin in the attempt to harmonize the perennial opposition of experience and logic, it also generates some of the most significant developments in the subsequent history of the traditions inaugurated by Schlick and Husserl.

1.

Schlick's reasons for attacking Husserl's method over a period of almost two decades can best be understood against the background of the development of Schlick's epistemology from a post-Kantian anti-Platonism with an empiricist bent to the mature logical positivism that he would develop under the influence of Wittgenstein and Carnap. As early as 1910, Schlick had criticized Husserl's theory of truth for its apparent requirement of logical truths independent of concrete acts of judgment; for Schlick, although Husserl's distinction of the *object* of an act of judgment from the act itself was quite correct, any attempt to conceive of the logical structure of mental acts, in virtue of which they possessed truth or falsity, in independence of those acts themselves could only end in incoherence.¹ In particular, Schlick criticized Husserl's description of the direct intuition or 'grasping' of ideal logical objects or abstractions as nonsensical.²

The initial criticism drew much of its motivation from Schlick's own developing picture of intuition and logic, and in 1913 this picture became the basis of a sharper and more focused attack on Husserl's doctrine of *Wesensschau*. Schlick now thought purely intuitive knowledge of any sort impossible.³ Because knowledge, Schlick reasoned, is always recognition or grasping of something *as* something, the immediate, non-relational faculty of intuition never gives us anything more than the raw material of knowledge. Further conceptual acts of comparison and combination are needed to make even the simplest of judgments. Knowledge always has the form of judgments, and always requires, in addition to intuition, some mediation by general concepts.⁴ The necessity of concepts for knowledge, however, does not provide any justification for regarding them as substantial realities above and beyond specific acts of judging.

Three years later, in his comprehensive *General Theory of Knowledge*, Schlick further developed this nominalist vision of concepts. Strictly speaking, Schlick argued, concepts do not exist at all; what really exist are simply *conceptual functions* accomplished by mental acts or spoken or

written signs. These conceptual functions serve to coordinate and associate mental images to produce knowledge, but have no existence outside of concrete acts of coordination and association.⁵ This picture of concepts provided the basis for a renewed attack on Husserl's *Wesenschau*; Schlick interpreted Husserl as holding that ideal concepts could be directly grasped in a mysterious form of intuitive act that was nevertheless not a real psychological occurrence.⁶ The attempt to explain such acts, Schlick averred, led Husserl to speak obliquely of a puzzling 'self-evidence' supposedly accompanying the grasping of ideal concepts; but, Schlick objected, no sense could be made of the nature or purpose of this self-evidence.⁷

In Husserl's only official recognition of Schlick's attack, he bitterly and dismissively rebuffed Schlick's *General Theory of Knowledge* remarks, accusing Schlick of completely misunderstanding his doctrine. Husserl's response specifically mentioned only Schlick's assertion that *Wesenschau* involves a non-real intentional act, calling it a "total impossibility that I should have *been able* to utter so insane an assertion as that attributed to me by Schlick . . ." and calling for an end to criticisms of phenomenology based, like this one, on a failure to understand its meaning.⁸ But the surroundings of Husserl's comments show that he thought more than just this particular issue was at stake. According to Husserl, phenomenology, like mathematics, requires of those who would criticize it certain "strenuous studies", without which a philosopher should not even be allowed to comment on phenomenological matters. Far from just a simple misunderstanding, Husserl perceived the motivation of Schlick's attack to be a complete rejection of the phenomenological method and an irresponsible attempt to pass judgment on it without practicing it. It is not surprising, then, that when Schlick corrected his specific misunderstanding in the second edition of the *General Theory of Knowledge*, agreeing that acts of *Wesenschau* are indeed real psychological acts (which, according to Husserl, additionally have an abstract or ideal aspect), he nevertheless took no heed of Husserl's call for phenomenological study, instead leaving the rest of his attack on *Wesenschau* in place.⁹

Nor was this Schlick's final word on phenomenology. In 1930, he again attacked Husserl's methodology, this time focusing his attack on the phenomenologist's defense of synthetic *a priori* propositions.¹⁰ Schlick had in the meantime come under the influence of Wittgenstein's Tractarian picture of meaning, and he now tied his reasons for opposing phenomenology to the logical positivists' hope that mathematical and other *a priori* propositions could be identified as analytic or logically true by applying the new logical tools developed by Frege, Russell, and Wittgenstein. The thought that even the synthetic *a priori* propositions offered by phenomenology as

the results of its eidetic investigations – Schlick’s examples were ‘every tone has an intensity and a pitch’ and ‘one and the same surface cannot be simultaneously red and green’ – might ultimately be tautologies gave Schlick the basis for his criticisms of the phenomenologist’s defense of the synthetic *a priori* and the use of *Wesenschau* to ascertain it. Just as axiomatization had shown, *contra* Kant, the ultimately tautologous character of mathematical propositions (or so Schlick thought), further analysis might well reveal the phenomenologists’ synthetic *a priori* propositions to be tautologous or logically true rather than true in virtue of facts.

In the article, Schlick offered several types of evidence for the plausibility of his claim for the tautologous and non-factual nature of phenomenological propositions. First, Schlick noted that such claims as that a surface cannot be simultaneously red and green are not normally used in ordinary language except perhaps rhetorically; this suggests their triviality and their distinction from normal claims that communicate facts.¹¹ Moreover, Schlick argued, unlike factual propositions and like tautologies, phenomenological propositions have the property that their contraries are nonsensical; the assertion of the existence of a surface both red and green all over, for instance, would not even be understood, and no possible evidence could convince us of its truth.¹² Indeed, according to Schlick, it is a peculiarity of phenomenological propositions that to understand a phenomenological proposition is to know its truth, for to deny its truth is to betray one’s incomprehension of its terms. For this reason, the claims of phenomenological propositions are undeniable by any competent language user. This made it clear, Schlick thought, that phenomenological propositions are true in virtue of the conceptual structure of their terms rather than in virtue of facts:

... If I hear that [a] dress was both green and red, I am unable to give a meaning to this combination of words; I just do not know what it is supposed to mean. If someone speaks of a tone that lacked a determinate pitch, I know beyond question that it was no simple musical tone; and if someone speaks of a green dress, I know beyond question that it wasn’t a red dress; in the same way I know that a man who is 1.60 meters tall, isn’t at the same time 1.80 meters tall. Everyone will admit that it requires no special kind of experience or insight in order to know that the lengths corresponding to 1.60 and 1.80 meters are incompatible with one another, for this follows from the nature of the concepts. As long as I take them to be compatible, I simply have not understood what is meant by the words ‘1.60 meters long.’¹³

Following Wittgenstein’s treatment of tautologies, Schlick thought that the internal connection between truth and understanding in the case of phenomenological propositions revealed their purely formal, conceptual, or tautological character.¹⁴ It followed that no facts were needed to make them true, and indeed that they had no claim to represent the world as being one way rather than another. As purely conceptual truths, they simply

expressed the derivational or transformational structure relating empirical propositions to one another, and made no autonomous contribution to the empirical content expressed. This meant, of course, that the understanding needed to grasp their truth was no real knowledge at all, and in particular that Husserl's intuitional 'seeing of essences' had nothing to do with establishing them.¹⁵ And since phenomenological propositions embody no real knowledge, they certainly, Schlick concluded, cannot be the basis of a distinctive special science of phenomenology.

The development of Schlick's criticism of phenomenology instructively mirrors the development of logical positivism itself from its empiricist roots to the linguistically and logically oriented program of conceptual analysis that Schlick and his Vienna Circle colleagues drew from the suggestions of Russell and Wittgenstein. Whereas Schlick's early criticisms focused on the apparent Platonism of Husserl's doctrine, opposing to it the traditionally empiricist view that all mental acts consist in particular ideas and their associations, Schlick had already begun to develop a nominalist picture of conceptual knowledge that would provide the foundation for his mature, thoroughly linguistic account of the relationship of concept to intuition. Representing no genuine knowledge, concrete intuitions only provided, according to Schlick, the occasion for the specific acts of comparison and recognition that allowed the expression of knowledge in linguistic or symbolic form. Under the influence of Wittgenstein, Schlick now considered the meaning of terms and propositions to be dependent on nothing more abstract than the semantic rules governing their use; it was on this basis that he sought to explain the tautologous character of phenomenological propositions. "The meaning of a word is solely determined by the rules which hold for its use", he wrote in 1930, "Whatever follows from these rules, follows from the mere meaning of the word, and is therefore analytic, tautological, formal".¹⁶ Phenomenological propositions, then, simply characterized some of the particular rules for the use of their terms; they were in no sense either direct descriptions of the structure of experience or descriptions of any metaphysically real structure. Once these rules were clarified, Schlick thought, all such propositions could be revealed as analytic, and all Husserl's confusion about their allegedly material character would dissipate. Thus the conceptual analysis of the logical structure in virtue of which phenomenological propositions held true could reasonably claim to be mere redescription of the correct use of various terms by competent language-users; no special insight into either the specific character of experiences or the ideal structure of any conceptual domain was needed.

2.

Largely one-sided though it was, the dispute between Schlick and Husserl unfolded with marked bitterness, resentment, and allegations of misunderstanding on both sides. The perceived stakes of the debate went far beyond the apparently local issues cited by Schlick; both philosophers regarded it as a struggle for the correct methodology of future philosophy, and saw the practices of the two schools they represented as incompatible. But their dispute cannot really be understood except against the backdrop of the thematic and methodological consensus they shared. In particular, Husserl and Schlick broadly agreed on a single post-Kantian conception of logic as displaying the formal structure of language and knowledge and on the relevance of a logical analysis of concepts to the clarification of linguistic propositions and the solution of the problems of epistemology. Even Schlick's ability to characterize the issue as a dispute about the existence of a material *a priori* presupposed the two philosophers' shared understanding of the universality and necessity of *a priori* propositions, as well as their agreement on the relevance of a basic distinction between matter and form in handling them.¹⁷ Both philosophers, moreover, substantially agreed about the meaning of this distinction. Form (in the sense relevant to the debate) was, for both Schlick and Husserl, conceptual or logical; whereas to say of a proposition that it was 'material' meant that it depended on facts, intuitions, or the nature of experience. On the basis of this distinction, both philosophers agreed that propositions true in virtue of form are true *a priori*; their official difference, on Schlick's construal at least, simply concerned whether there are further *a priori* propositions whose truth depends not on logical or conceptual form, but on the specific characteristics of experiential matter or worldly states of affairs.

In a contemporary essay, van de Pitte (1984) undertakes to defend Husserl against Schlick's allegations, both early and late, by showing that Husserl's conception of *Wesenschau* and his related defense of phenomenological propositions, properly understood, does not exhibit the shortcomings Schlick found in it. Central to van de Pitte's defense of Husserl is the suggestion that his phenomenological methodology be understood as a program of "conceptual analysis" that actually differs little from Schlick's own. The phenomenological propositions Schlick cites as examples in the 1930 article, van de Pitte argues, might well be considered analytic rather than synthetic, at least on a sufficiently rich conception of analyticity.¹⁸ Responding in *Ideas I* to the reproach of those who consider his system a variety of Platonic realism, Husserl indeed claims that the

essences seen in eidetic intuition may be called concepts, as long as one does not confuse them with acts of conceiving:

Prejudices make people remarkably easy to satisfy with respect to theories. There can be no essences and therefore no eidetic intuition (ideation); therefore where ordinary language contradicts this, it must be a matter of 'grammatical hypostatization' by which one must not let himself be driven to 'metaphysical hypostatizations.' What we have to deal with in fact can only be real psychological processes of 'abstraction' attached to real experiences or representations. As a consequence, 'theories of abstraction' are zealously constructed and psychology, so proud of being empirical, is enriched here, as in all intentional spheres (which, after all, make up the chief themes of psychology) with invented phenomena, with psychological analyses which are no analyses at all. Ideas or essences, it is said, are thus 'concepts' and concepts are 'mental constructs,' 'products of abstraction,' and, as such, indeed play a large part in our thinking. . . . We answer: Certainly essences are 'concepts' – if by concepts one understands, in so far as that ambiguous word allows, precisely essences. (s. 22, p. 41)

Clearly, the main purpose of Husserl's remark is to block the psychological identification of acts of conceiving with their conceptual products, but the identification of essence with concept does motivate a plausible interpretation of the point of eidetic intuition as a kind of conceptual analysis. As van de Pitte points out, the sense in which essences are seen in eidetic intuition emphatically does not require that they exist or subsist in some Platonic or ideal realm; the point of calling essences ideal is precisely that they do not exist as real objects, and phenomenology in any case studiously avoids making any positive claims for the existence of any objects, real or ideal. Indeed, van de Pitte argues, the phenomenological consideration of a concept or ideal type never results in any factual claims at all; the analysis of the essences governing colors or sounds, for instance, simply establishes the range of possibilities within these domains, establishing what relations of inclusion or exclusion obtain among the classes and sets that define their types. Given this, van de Pitte suggests, there need be nothing particularly troubling about *Wesenschau*; indeed it goes no further than the understanding needed, on anyone's theory, simply to comprehend analytic propositions:

Wesenschau need not be specifically 'phenomenological' nor need it be much different from the intuition of analytic propositions mentioned above. *Wesenschau*, too, yields an understanding of a class concept, and, certainly, to understand a trivially true proposition like "A bachelor is an unmarried man", is to understand a class concept, or a Husserlian 'essence'. . . . But if what *Wesenschau* effects is an insight into class structures, an insight that ideally can be formulated in a proposition expressing both necessary and sufficient conditions for class membership, it is difficult to see what is objectionable about the notion – especially now that we have it clearly in mind that concepts, classes, essences, or what have you, do not 'subsist'. (p. 211)

If the results of *Wesenschau* amount to nothing more than the revelation of relations of inclusion and exclusion among class concepts and their members, then Husserl's apparent call for a special faculty of ideational intuition is in reality nothing more than a colorful way of describing our access to the conceptual relationships in virtue of which propositions are analytic or synthetic. Husserl could then presumably agree with Schlick's characterization of phenomenological propositions as analytic. In fact, van de Pitte suggests, since phenomenological analyses can in general be recast as 'linguistic' analyses, there is no reason why Husserl's detailed phenomenological investigations could not simply be rewritten in a form acceptable to Schlick as analyses of what words mean when correctly used.¹⁹ In this way, Husserl could naturally accommodate Schlick's arguments about the nonsensicality of the denials of phenomenological propositions without essentially disagreeing with Schlick about the reason for this nonsensicality.

Van de Pitte's suggestion that phenomenological analysis can be treated as conceptual analysis, if correct, therefore brings Husserl closer to Schlick, tending to show that the two philosophers agreed not only about the relevance of the post-Kantian classification of judgments into the two mutually exclusive categories formal/analytic/conceptual and material/synthetic/factual, but even about which judgments fell into which category. Admittedly, van de Pitte argues, there were differences about the *character* of analyticity; whereas Schlick thought that analytic judgments are ultimately tautologies, Husserl thought the conceptual structure that made them true would be more complex than anything reducible to relations of contradiction or noncontradiction. But this difference seems slight in comparison with the extensive similarities between the projects of Schlick and Husserl on van de Pitte's construal. Clearly, for the reasons van de Pitte cites, there is at least some justice in considering Husserl's project, or parts of it anyway, to be a species of 'conceptual analysis'; and conceiving it in this way makes possible a variety of types of analysis whose results, if actually carried out, would certainly be acceptable to both philosophers.

But in bringing Husserl's methodology closer to Schlick's, the effect of van de Pitte's argument is to obscure the genuine ground of the deep animosity and apparently mutual rejection that characterized the dispute between the two. Schlick clearly lacked a full understanding of Husserl's arguments against construing phenomenology as Platonic realism, and much of his criticism of *Wesenschau* can indeed be ascribed to simple misunderstanding. But even had Schlick appreciated Husserl's arguments for a non-Platonic construal of the phenomenological method, it seems likely

that he would not have accepted them. As Jim Shelton (1988) argues in response to van de Pitte's article, for Schlick it was impossible for the objects of any kind of intuition to be *general* entities like concepts; the claim that intuition could only grasp particulars was foundational for his nominalist description of concepts as symbolic functions.²⁰ This objection brings to the fore at least one significant point that clearly remains at issue between Schlick and Husserl even if they are construed as joint participants of a common method of conceptual analysis. From the beginning, Schlick had objected to Husserl's theory not only on the basis of a nonspecific distaste for Platonic realism (or the appearance thereof) but, more significantly, on the basis of his own empiricist and nominalist picture of the relationship of abstract concepts to particular intuitions. What, then, was the source of judgments about concepts, and what did such judgments represent?

By the time of the 1930 article, Schlick was prepared to answer this question with a sophisticated conception of the nature of language and logic according to which the knowledge of certain *a priori* 'conceptual' propositions could be internally connected to the understanding of competent language users, as embodied in the rules they followed in speaking. And Schlick clearly thought this picture an improvement over all previous descriptions of abstraction and the *a priori*, including phenomenology's. It is not difficult, indeed, to see why Schlick might have thought his theory superior in the special case of propositions describing the structure of experience. For he thought his linguistic picture of their origin could explain their necessity and *a prioricity* without utilizing any metaphysical resources beyond those already presupposed by the conditions of meaningful language in general (which, in turn, were no special problem, given an account of rules of use). For Schlick, the nonsensicality of the contraries of phenomenological propositions showed that insofar as the specific structure of experience operates as a condition on possible knowledge, it does so as a condition on the possibilities of linguistic meaning. Such possible items of knowledge as are excluded by our experience having the structure that it does are already nonsensicalities. It follows that an adequate theory of the general conditions of meaning yields an explanation of the structure of experience automatically, without involving any additional metaphysical or epistemological commitment. Schlick thought his insight crucial to the non-metaphysical understanding of the structure of experience; any alternative theory that missed the specific link between the structure of experience and the possibilities of meaning would be forced to posit a material *a priori* and incur all of its metaphysical problems.

Even if many of Husserl's actual results, therefore, can be recast in the mold of Schlick's linguistic theory, and whatever the status of their

analyticity, it is not at all clear that Husserl would have agreed with Schlick about their epistemological ground or their metaphysical origin. But the question of the epistemology and etiology of conceptual judgments clearly has a deep relevance to the investigation of their status, not least to whether and in what sense they might be 'material' or synthetic. Moreover, because of the decisive influence of post-Kantian logical and mathematical tools on the descriptive and theoretical goals of both Schlick and Husserl, neither philosopher's project can really be understood in the absence of a consideration of the underlying nature of logical truth and its relation to factual judgment. Especially since a new conception of logical truth was one of the most important early results of the logical positivist project and since problems with this conception would be responsible for some of the most significant developments in post-positivist analytic philosophy, the similarities and differences between Husserl's account of logical truth and Schlick's bear closer examination in the light of the hope both philosophers shared for the instructive connection of logic with meaning.

3.

What was, then, Husserl's real understanding of the origin and epistemology of phenomenological judgments of the sort Schlick singled out in his 1930 article? What, in particular, was Husserl's conception of the relationship of such judgments to the meaning of ordinary language propositions? To address these questions, it is necessary to examine in somewhat greater detail the specific concepts and distinctions that Husserl himself brought to bear on them. Upon closer analysis, Husserl's treatment of *Wesensschau* is no mysterious or mystical doctrine of the 'seeing of essences', but rather a sophisticated and ramified theory of abstraction and of the epistemological relation of particularity to generality that was the focus of some of his most devoted efforts throughout his development of phenomenology.

Beginning in 1900 with the first edition of his *Logical Investigations*, Husserl envisioned an overarching mathematical/logical/ontological project that he called (using terminology from Leibniz) *mathesis universalis* or the pure 'theory of theory'. One of its tasks was to describe the formal unity of each of the particular theories of the formal and empirical sciences by defining 'pure categories of meaning, the pure categories of objects and their law-governed combinations'.²¹ Because each empirical or formal theory must have a unified, deductive character and concern a particular domain of possible or actual objects, the semantic metatheory given by logic would comprise, in each case, a theory of the possible logical relations of objects in that domain as well as a theory of the logical relations

of propositions about those objects. The pure ‘theory of theories’ would, in addition, comprise a description of the possible logical forms of any objectivity whatsoever, as well as the logical forms and relations in virtue of which semantic meaning is possible at all. Thus, examples of the pure categories of meaning include “Concept, Proposition, [and] Truth”. In close connection with the pure categories of meaning, pure logic also establishes the highest-level categories of ontology. These ontological categories, like “Object, State of Affairs, Unity, Plurality, Number, Relation [and] Connection”, are ‘formal’ in the sense that they govern the possible forms of existents in any objective domain whatsoever.²² Epistemologically, the determination of both the pure categories of meaning that allow for the systematic unity of a theory and the formal categories of ontology requires the use of essential or categorial intuition, the ‘seeing’ of abstract concepts or categories:

In both cases we are dealing with nothing but concepts, whose notion makes clear that they are independent of the particularity of any material of knowledge, and under which all the concepts, propositions and states of affairs that specially appear in thought, must be ordered. They arise therefore solely in relation to our varying thought-functions: their concrete basis is solely to be found in possible acts of thought, as such, or in the correlates which can be grasped in these . . .

All these concepts must now be pinned down, their ‘origin’ must in each case be investigated. Not that psychological questions as to the origin of the conceptual presentations or presentational dispositions here in question, have the slightest interest for our discipline. This is not what we are enquiring into: we are concerned with a phenomenological origin or – if we prefer to rule out unsuitable talk of origins, only bred in confusion – we are concerned with insight into the essence of the concepts involved, looking methodologically at the fixation of unambiguous, sharply distinct verbal meanings. We can achieve such an end only by intuitive representation of the essence in adequate Ideation, or, in the case of complicated concepts, through knowledge of the essentiality of the elementary concepts present in them, and of the concepts of their forms of combination. (pp. 237–238)

Already in the *Logical Investigations*, then, Husserl connects the intuition of essence to the establishment of both the overriding categories of ontology and the ‘categories of meaning’ governing the unity of all possible theories. Essential intuition is therefore at least partly concerned with establishing the conceptual conditions under which purely formal truth is possible, as becomes clear when Husserl explains the second task of pure logic:

Our *second* group of problems lies in the search for the *laws* grounded in the two above classes of categorial concepts, which do not merely concern possible forms of complication and transformation of the theoretical items they involve (see Investigation IV), but rather the *objective validity* of the formal structures which thus arise: on the one hand, the truth or falsity of *meanings* as such, purely on the basis of their categorial formal structure, and on the other hand (in relation to their objective correlates), the being and not being of objects as such, of states of affairs as such, again on the basis of their pure, categorial form.²³

Essential intuition clarifies the laws governing the possibility that a proposition is formally or logically true, as well as of certain kinds of objects that owe their existence purely to form, including numbers, sets, and other mathematical objects.

Why, if Husserl agreed with Schlick in considering *a priori* propositions to be true solely in virtue of the abstract form of conceptual connections, did he nevertheless insist on a special ability of essential intuition or direct grasping of essences to establish them? The answer lies in the *Logical Investigations*' development of a sophisticated theory of abstraction, through which Husserl sought to explain our epistemic access to general concepts and truths. In contradistinction to classical empiricist theories of abstraction, which held that the ability to generalize rests on the use of an intuited particular as a general example, Husserl thought that no theory of abstraction would give an adequate account unless it described our ability to access a generality *as such*. For instance, where Locke, Hume, and Berkeley had sought to explain our knowledge of a general geometrical proposition about triangles by hypostatizing a particular, intuitively graspable triangle – a 'general idea' – with no determinate size or shape (Locke) or by treating the generalization as a mere annexation of a general name to a set of several representative particulars (Berkeley), Husserl insisted that such a proposition could only be known through direct knowledge of a general essence that is completely distinct from any of its particular instances.²⁴ Without the intuition of generalities as such, Husserl thought, any number of acts of comparison or distinction of particulars remains insufficient to establish any general, *a priori* propositions about the characteristics of their types or species.²⁵

Later in the *Logical Investigations*, Husserl develops further the description of essential intuition to cover not only the intuition of the conditions of formal meaning and ontology, but also the possible types and forms of various sensuous and intuitive materials, such as colors, shapes, and sounds. By varying a particular intuitive content (for instance a color or a shape) in imagination, we can establish ideal laws governing its possibilities of transformation into various forms and combinations. These ideal laws of intuitive possibility may – but need not – match the categorial laws in virtue of which propositions have meaning; so it becomes possible for a proposition to express a meaning that cannot be fulfilled by any real intuitive content. Husserl calls such propositions, and the non-intuitive presentations they embody quite generally, *inauthentic*.²⁶ For instance, a sentence reporting the existence of a 'round square' might fulfill all the syntactic rules necessary for a proposition to have meaning, but it will have no possible intuitive fulfillment.²⁷ The unimaginability of

Schlick's 'impossible' propositions (for instance the proposition asserting that a particular surface is both red and green all over) then corresponds to the formal mismatch between the categorial laws governing the formation of possible meanings and the categorial laws governing the particular sensuous or intuitive domain described. The intuitive content called for by such a proposition cannot even be experienced in imagination, owing to its failure to respect the specific categorial laws governing the possibilities for transformation and combination of intuitive contents in its particular sensory domain.

Husserl's *Logical Investigations* picture, then, calls for essential intuition to establish ideal laws governing both the possibilities of formal or analytic truth and the existence of formal objects like numbers, and additionally to determine the more specific possibilities of transformation and combination of intuitive contents in particular sensory domains. But what is the relationship between these types of categorial laws, and how does essential intuition operate in each case? In *Ideas I*, Husserl develops the theory of categories further, distinguishing on the level of ontology between formal and regional categories. As in the *Logical Investigations*, formal categories include those ontological categories (like Object, State of Affairs, and Relation) that can apply in any objective domain whatsoever, and also the ideal logical/grammatical categories of propositional form in virtue of which propositions have meaning. In addition to formal ontology, however, various regional ontologies with their own particular categorial laws underlie specific domains of experience and theory. The 'eidetic seeing' of the particular categorial laws governing a region can be accomplished by a process of 'free phantasy' or imaginative variation of intuitive contents:

If we produce in free phantasy spatial formations, melodies, social practices, and the like, or if we phantasy acts of experiencing of liking of disliking, of willing, etc., then on that basis by 'ideation' we can see various pure essences originally and perhaps even adequately: either the essence of any spatial shape whatever, any melody whatever, any social practice whatever, etc., or the essence of a shape, a melody, etc., of the particular type exemplified. (sect. 5)

In this way, regional essences determine regional axioms, eidetic truths that Husserl describes as synthetic *a priori*. Husserl is less explicit about the methodology for establishing formal categories, but as in the *Logical Investigations*, he suggests that one can proceed grammatically, by systematically generalizing specific propositions to isolate the formal syntactic structure of their terms.²⁸ Thus, linguistic-level analysis does for formal categories what imaginative free variation does for regional ones; in each case the establishment of categorial laws rests on the evidence derived

from the arbitrary variation of particular instances of a general type to establish the character of that type.

The central importance of the epistemology of categorial form to the phenomenological description of judgment can be seen in *Experience and Judgment*'s account of the distinction between pre-predicative and predicative experience. For Husserl, pre-predicative, intuitive experience suffices only to put one in contact with particular objects or parts of objects. Making a judgment about a state of affairs, or having an experience of a state of affairs as such, requires a specific further act of predication that involves full knowledge of general species, types, or concepts and therefore presupposes their categorial intuition.²⁹ For instance, the cognitive or experiential judgment that predicates a universal of a particular ("The sky is blue") requires not only sensory intuition of the particular but abstractive, adequate intuition of the universal in its specific character.³⁰ The abstract relations of essences therefore establish preconditions for any sensory or intuitive judgment whatsoever, and the specific phenomenological principles that can be established on their basis are only illustrations of the preconditions of intuitively fulfillable meaning generally.

Husserl applies the method of imaginative free variations explicitly to Schlick's own example of the law holding that every tone has both an intensity and a quality:

[*a priori* necessity] is attained ... in an act of judgment which is connected with the obtaining of pure generalities in free variation. We have, for example, obtained the *eidōs* sound and have found that a quality, an intensity, and a timbre belong to it and that these qualities, when we run through like sounds, are also like. We can then make a particular judgment: some particular sound or other of this sound-concretum has in itself a particular moment of the concepts of concrete intensity, quality, etc. But continuing on the basis of an arbitrary repetition, we can also say that the concrete concept 'sound' (the sound-concretum) includes the dependent partial concepts 'this intensity', 'this quality' and that every possible individual particular of this sound-concretum includes a particular moment of this intensity, this quality. And this is in the activity of free variation. We see that it is in general so and that the universal state of affairs subsists in the realm of *a priori* possibility; that is, just as the concrete concept includes its partial concepts, so in general every possible state of affairs that is some particular sound or other includes the state of affairs that this same particular sound has intensity and quality.³¹

For Husserl, then, the phenomenological 'law' that each sound has an intensity and a quality expresses a categorial law or an ideal conceptual structure that governs both the imaginative possibilities of intuition and the ontological possibilities of actual states of affairs, both subject additionally to the overriding laws of formal meaning and ontology. Insight into the categorial law can be described as the intuitional seeing of an essence, but it is always bought by the free variation of intuitive, concrete contents in imagination. Such a basis is necessary, in fact, to ensure that any essence is

intuited adequately and completely. For, Husserl explains, any mere generalization or induction from a finite set of particular observed examples of a type remains tied to the contingency of that particular set. What is needed for genuine perception of an essence is, in addition to the adumbration of a set of examples of an essential type, the *a priori* knowledge that the possibilities envisioned for that type is indeed exhaustive. Generalizing from a finite number of actually perceived examples of dogs, I may arrive at an incomplete concept that bears the contingent marks of the particular set of examples I happened to observe; the only way to gain adequate insight into the essence dog is to gain exhaustive knowledge of the extent and boundaries of its *infinite* range, or horizon, of possible instances.³² Even in imagination, however, the possibility of attaining such insight does not rest on the entertainment of an infinite number of examples, but only on the *arbitrary* character of imaginative variation:

... What matters is that the variation as a process of the formation of variants should itself have a *structure of arbitrariness*, that the process should be accomplished in the consciousness of an arbitrary development of variants. This does not mean – even if we break off – that we intend an actual multiplicity of particular, intuitive variations which lead into one another, an actual series of objects, offering themselves in some way or other and utilized arbitrarily, or fictively produced in advance; it means, rather that, just as each object has the character of exemplary arbitrariness, so the multiplicity of variations likewise always has an arbitrary character: it is a matter of indifference what, in addition, I might be given to apprehend in the consciousness that ‘I could continue in this way’. (p. 342)

In the course of explicit phenomenological investigation of an essence or an essential law, awareness of the arbitrariness of possible variation thus leads to the grasping or intuition of the infinitely open horizon of possibilities encompassed by a specific invariant type.³³ Husserl’s theory of judgment calls for any predicative judgment of the type of an object to be based somehow on such a grasping. But explicit and deliberate acts of free eidetic variation are undoubtedly rare; the possibility of each of my predicative judgments could hardly depend on my having explicitly gone through the process of imaginative variation for each of the predicates that I employ in an ordinary judgment. For this reason Husserl does not require that imaginative free variation be explicit and deliberate; ordinarily, an ongoing process of *passive synthesis* suffices to ‘constitute’ the universal concept needed for judgment.³⁴ By synthetically associating similar objects in virtue of their common properties, the process of passive synthesis begins to constitute the concepts of those properties even where no explicit course of phenomenological investigation is undertaken.³⁵

The details of Husserl’s complex and ramified theory absolve him, then, of any accusation of simple obscurity; but even with these details in view, Husserl’s theory does not provide him with the resources to completely

resist Schlick's attack. This becomes clear upon an examination of the differences between the two theories; most importantly, unlike Schlick, Husserl does not tie the understanding of regional-categorical laws directly to the conditions under which formal truth and meaning in general are possible, except in the derivative sense that regional categories remain always subject to formal categories and all propositions remain subject to the general logical categories that make propositional meaning possible at all. Indeed, for Husserl, Schlick's 'incomprehensible' propositions are actually *meaningful*, albeit 'inauthentic'. The specific establishment of the material-categorical laws that Schlick describes as 'phenomenological propositions' rests in each case on the imaginative establishment of the range of forms and combinations possible for a given intuitive content or type. Because they depend on and establish only imaginational *possibilities*, the material-categorical laws are certainly not 'factual' in the sense of being made true by particular facts; indeed they have a good claim to be 'formal' in the sense of resting only on the formal possibilities of variation and combination in particular intuitive domains. Still, particular material-categorical laws clearly rest on the specific character of the perceptual or intuitive domains to which they apply. Though the formal structure of these laws is assuredly an ideal/conceptual structure, nevertheless it emerges only from the particular perceptual or sensory possibilities evident in free imaginative variation.

Husserl's two-level account, then, does indeed treat the *a priori* laws governing the structure of experience as grounded in determinate and specific ranges of experience subject to specific material ontologies, and in this sense, whatever the additional complexities and motivations of the theory of *Wesensschau*, Husserl's theory does indeed require a material *a priori* of the sort it was the aim of Schlick's linguistic theory to expose as unnecessary. Moreover, the two-tiered character of Husserl's theory leaves him unable to capture as readily as Schlick the guiding linguistic intuition of the latter's theory: that the logical structure of experience constrains the possibilities of knowledge by constraining the possibilities of linguistic meaning, thereby making the contraries of phenomenological propositions nonsensical. Failing to identify "authentic thinking" with meaningful thinking *tout court*, Husserl's theory invites the criticism that among the propositions it describes as meaningful there are many (*viz.*, the 'inauthentic' ones) for which we can certainly envision no clear meaning. Nor can these propositions evidently enter into meaningful inferential relations with other propositions; any claims derived from them by the usual rules of inference will have no more clarity of sense than they themselves do. From Schlick's perspective at least, Husserl's failure to treat the structure

of experience as a constraint originating from the conditions for the possibility of linguistic meaning themselves saddles him with the burden of explaining the determinacy and necessity of the structure of experience in other, more metaphysically involved terms.

This additional metaphysical burden might reasonably be thought undesirable in any case, given the availability of a simpler theory; but it provides specific problems for Husserl's view in that the metaphysical description of the structure of experience necessarily engenders a correlative epistemology of our knowledge of that structure. In the broad sweep of Husserl's system, we have seen that the possibility of essential intuition through eidetic free variation emerges as the crucial link between the phenomenological theory of abstraction and the equally important theory of judgment, providing at once an account both of our knowledge of abstract universals and of the possibility of our judging their instances – specific properties – to hold of individuals. Its necessary basis in imagination gives eidetic variation the character of generality it needs to establish genuinely substantial *a priori* phenomenological knowledge of concepts on the basis of concrete psychological acts, while the possibility of passive synthesis accounts for the epistemology of conceptual knowledge as it figures in ordinary acts of judgment. Husserl's frequent reminders that the idealizing process of essential intuition always maintains a foundation in concrete experience therefore might genuinely be taken to absolve his epistemology from Schlick's early accusation of Platonism and therefore from at least one part of the anti-metaphysical motivation of Schlick's attack on the material *a priori*. But even so, specific epistemological problems for his account of phenomenological propositions still emerge from Husserl's reliance on imagination as their original source. These problems point to the genuine difficulty of giving an account of phenomenological propositions, and point toward the sense in which, though based on substantial misunderstandings, Schlick's criticisms of Husserl identify a real and important inadequacy in Husserl's account.

Because Husserl's account does not – as Schlick's account does – identify the conceptual conditions of possible experience directly with the linguistic conditions of possible meaning, it incurs the additional burden of explaining the origin of experiential concepts and the capability of their *a priori* relations to constrain possible knowledge. Husserl discharges the additional theoretical burden with the theory of *Wesenschau*, imaginative variation, and passive synthesis; but it is not clear that this interconnected theory, for all of its sophistication of detail, really clarifies how the origin of experiential concepts determines the *a priori* propositions describing the structure of possible experience. One set of difficulties surrounds the

applicability of the idea of passive synthesis to the experiential concepts in virtue of which Schlick's 'phenomenological propositions' hold true. The pre-existing possibility of passive synthesis and its associative comparison of like with like might plausibly be thought to provide as much basis as we have for discerning the type of an ordinary object encountered in experience, or answering the question of how much it could change while remaining the same type of thing; here it seems plausible that actually imagining – having images of – a number of variants of a given object might play a necessary role in determining the nature and limits of its conceptual type. But Schlick's special phenomenological propositions describe the structure of experience in general, rather than the essences of specific objects or types of object. Accounting for the sense in which the structure of experience is a presupposition of all of our encounters with the world requires an explanation for it that does not simply depend on generalization from a set of observations of things *in* the world.

How, then, are experiential concepts – for instance color concepts – supposed to originate in passive synthesis? One possibility is that the associative mechanism of passive synthesis just has privileged access to the structures in virtue of which the concepts of experience are applicable to the world. These structures *could* simply be mental structures, characteristic of our perceptual apparatus with no implications for realities in the world. But Husserl clearly believes that the *a prioricity* and necessity of phenomenological propositions point to their non-psychological nature and their grounding in essences characteristic of things in the world. This suggests, instead, that Husserl intends a *metaphysically realist* account: given the determinate structure of experience, our color concepts simply amount to names for the particular colors we experience, and we generalize from this experience to guarantee that the concepts bear relations that mirror the relations of their objects. But such an account clearly fails to do justice to the possibility that the relations of our color-concepts are (at least partly) relative to, and dependent on, our linguistic categories or training. It is a commonplace observation of much post-positivist epistemology that the learning of a language *does* play a role in determining and structuring experiential concepts. The metaphysically realist account of color-concept formation has, however, no place for this observation. On the metaphysically realist account of color-concept formation, there is no room for a structure of concepts to evolve in anything other than strict correspondence to the underlying structures they represent. In this sense, the contingency of our color-concepts is not explained, and the metaphysical commitment of the theory cuts directly against the possibility of giving an illuminating

account of the origin of these concepts that does not simply assume what is to be explained.

It is just here, indeed, that something like Schlick's insistence on a linguistic-level account might have helped. For a linguistic-level account like Schlick's plausibly explains the obtaining of the concepts and relations that we have, without having to advert to their grounding in metaphysical reality. Since no particular connection between the linguistic rules of use and metaphysical possibility is assumed, a Schlick-style account promises to remain undecided about the extent and origin of correspondence between experiential concepts and their underlying realities, and moreover avoids prejudging the extent to which such concepts arise from contingent features of our language or linguistic training rather than matters of fact about the world. An account like Schlick's, then, can both explain the necessity of our concepts of the structure of experience and allow room for the possibility that that necessity does not correspond to anything metaphysically real; indeed, since it is offered only as an account of linguistic use, it need not venture any metaphysical theory at all.

4.

Husserl's apparatus of formal and material categories and his methodology of free variations, then, allow him to treat Schlick's 'phenomenological propositions' as conceptual or analytic truths in the extended sense of being categorial laws grounded in the specific character of particular material regions.³⁶ But Husserl does not connect the truth of these laws nearly as closely to the conditions for the possibility of meaning as does Schlick. Instead, Husserl's reliance on imaginative variation to explain the foundation of concepts gives him the resources to account for the special sense in which the contraries of phenomenological propositions are 'nonsensical' without construing this nonsensicality as a matter of the violation of fixed linguistic rules of use, but also burdens his theory with the special epistemological problems involved in relating imagination to the structure of experience and the origin of experiential concepts. We have seen that Schlick's linguistic-level analysis, by contrast, gives him a metaphysically noncommittal description of logic as exhausted by rules for the use of terms and propositions, and it is in virtue of this account that he thinks phenomenological propositions can be reduced to tautologies. Officially, then, Schlick's picture avoids the need to appeal to the particularities of experiential or non-logical structure, and in so doing avoids the implication present on Husserl's picture of a grounding of phenomenological propositions in the specific structure of experience.

Upon deeper examination, however, substantial problems arise for Schlick's claim to ground phenomenological propositions 'rules of use' that are genuinely formal in the sense of being independent of the specific character of experience. This becomes particularly evident in connection with Schlick's attempt to deploy Wittgenstein's developing account of formal truth and the foundations of meaning in the 1930 article. Schlick understood that phenomenological propositions could not be tautological in the usual sense of reducing to complex propositions which would come out true under any possible assignment of truth-values to their atomistic propositional components. It was just this feature of certain apparently logically true propositions that had led Wittgenstein to begin to supplement the Tractarian picture of meaning with the new account of logical structure that he partially developed in his 1929 article "On Logical Form". The truth of a proposition such as 'X is 160 cm tall' implies not only the falsity of its direct negation, but also the falsity of any other proposition attributing to X a different height. Thus, a conjunction like "X is 160 cm tall and X is 180 cm tall" is logically false, although the second term of the conjunction is not the truth-functional negation of the first. This means that there are logical truths that are not truth-functional truths; such truths might be true in virtue of logical form in some extended sense, but they certainly are not true in virtue of straightforward truth-functional logic. Wittgenstein's solution to the problem was to theorize that, in Schlick's words, "such concepts as those of the colours have a formal structure just as do numbers or spatial concepts, and that this structure determines their meaning without remainder" (p. 169). In other words, the relations in virtue of which a proposition describing the color of an object excludes other propositions describing the same object as having a different color depend on the abstract structure of color-concepts itself. Whatever its claim to be 'logical', this kind of structure, unlike the general structure of formal logic characterizing the conditions under which any proposition has meaning, is clearly particular to a specific domain of meaning. For each individual propositional type (e.g., propositions about colours, propositions about quantities, propositions about spatial objects) requires its own particular structural rules of implication and exclusion.

Like Husserl's, then, Schlick's picture requires that competent language users deploy conceptual structures somehow related to the specific possibilities of particular intuitive, factual, or formal domains. Because phenomenological propositions simply express conceptual structure in this extended sense, they might assuredly still be considered purely formal or tautological. But any attempt to describe the epistemological origin of such conceptual structures raises additional problems for Schlick's view.

Doubtless, Schlick thought that the structure in virtue of which colors or quantities exclude one another conceptually could be explained simply as a matter of the actual semantic rules followed in ordinary language and practice and evidenced in the understanding of a competent speaker. A competent language speaker, simply in understanding the meaning of the terms 'red' and 'green', follows the semantic rule: "If a surface is called 'red' it cannot also be called 'green'." But such specific rules clearly go beyond the truth-functional rules in virtue of which propositions have sense at all. What, then, could explain the special status of these specific 'grammatical' rules, their applicability as systems to particular intuitive or factual areas?

One possibility suggested by Schlick's remarks is a *conventionalist* theory of the rules of use in virtue of which phenomenological propositions obtain. On such a theory, it is purely a matter of linguistic practice, owing to the stipulative adoption of a particular rule of use, that we refuse to characterize one and the same surface as being two different colors at once. A conventionalist account of analyticity was, of course, an essential component of Carnap's emerging picture of logical syntax, and would become one of the central doctrines of logical positivism. The view that the grammatical structure of Schlick's phenomenological propositions is conventional, however, leads in this case to special difficulties of both historical and philosophical importance. Conventional rules of use, in order to be applied, must presumably be grasped, explicitly or implicitly; but the specificity and complexity of phenomenology bears against the prospect of handling phenomenological propositions as expressions of antecedently grasped conventional rules of use. Unlike logical truths – truths characteristic of the deductive structure of formal logic and hence evident in the deductive relationships of any inferentially linked set of propositions whatsoever – phenomenological propositions bear on particular domains of experience. Accordingly, the rules they express constrain only the inferential relations of particular, highly specialized sets of propositions; the phenomenological proposition stating the mutual exclusivity of red and green, for instance, has inferential implications only for the special set of propositions about red or green objects.

It follows that the special rule of use in virtue of which it holds cannot be "formal" in exactly the same sense as a logical law might be; whereas a logical law normally constrains a proposition's inferential relations purely in virtue of its logical form and with complete indifference to the character of its semantic referent, the phenomenological laws expressed by phenomenological propositions (on the conventionalist view) cannot be formulated on the level of general grammar and depend heavily on the spe-

cific character of the semantic referents of the propositions they constrain. By contrast with the formally specifiable rules of logic, phenomenological rules of use cannot even be *stated* without referring to a specific class of objects or states of affairs.³⁷ But this poses a puzzle for the conventionalist account of their origin in that the stipulative or conventional act in virtue of which they are originally formulated can hardly be purely linguistic in the sense of concerning only the syntactic or formal characteristics of language. Whereas the inauguration of the syntactical characteristics of a language might be a matter of the stipulation of purely formal rules for the combination and interrelation of signs, phenomenological rules of use would have to be stipulated with semantic reference to their specific domains of application in view. Such stipulation would presumably require both pre-existing knowledge of the real relations of objects in such domains and an explicit codification of such knowledge among the basic meaning-postulates or definitions of the language. But both requirements severely threaten the privileged link between rule-following and understanding that Schlick is so concerned to maintain. No matter how characteristic of ordinary use a rule may be, it still will not be purely conventional or stipulative if it makes backhanded reference to specific and pre-existing relations of exclusion and inclusion among objects, properties, or experiences.

Because of the specificity of their ranges of application, then, phenomenological laws do not readily lend themselves a conventionalist treatment. Another possibility is simply to construe them as purely syntactic despite the specificity of their ranges of application. Such a construal amounts to treating an *a priori* proposition's apparent reference to a specific perceptual or objectual domain as a special kind of syntactic or formal feature of the proposition itself. Something like this is in fact suggested by the extension of Wittgenstein's metaphysics of meaning to the new kinds of non-truth-functional logical structure that he now (by 1929) considered to be part of the logical form of a proposition.³⁸ In the *Tractatus*, he had held that a proposition has meaning in virtue of the logical form it shares with a possible state of affairs. The logical form of a proposition itself can be understood in terms of the rules for its logico-syntactic use; a propositional structure's capability to have meaning applicable to a certain range of possible states of affairs depends on a formal isomorphism between that range and the possibilities of the structure's logico-syntactic employment.³⁹ In the *Tractatus*, Wittgenstein conceived such possibilities solely in terms of truth-functional logic; but given the newly theorized relevance of determinate conceptual structures to logical form, the account can naturally be extended to encompass a description of the specialized conditions of

meaning operative in particular conceptual domains.⁴⁰ On the extended account, for instance, propositions about colors have meaning only if their rules of use – the rules establishing the consistency, derivation, and exclusion relations among them – mirror the real metaphysical possibilities of relation and exclusion among states of affairs involving colors in the world. We may take it for granted, however, that our propositions about colors do have meaning; so by analyzing the grammatical structure of the rules we employ we can simultaneously clarify the actual metaphysical structure of the objects under description. Thus ‘grammatical’ analysis on the level of language becomes, at the same time, metaphysical or phenomenological analysis of the structure of experienced qualities. Wittgenstein seems to have, in fact, taken just this logico-grammatical program of description as his own around the time of the *Philosophical Remarks*; he even used the term ‘phenomenology’ to describe it.⁴¹

An explanation of the difficulties that drove Wittgenstein to abandon his ‘phenomenological’ project in favor of more particularized descriptions of specific language-games would go beyond the scope of this paper; but it suffices to note that one important source of problems is the epistemology and metaphysics of the ‘grammatical’ rules he now thought capable of governing meaningful use of terms in specific conceptual domains.⁴² The extension of logical form to include such rules meant that the mirroring of language and world extended far beyond the comparison of individual propositions with individual states of affairs; determining the truth of a proposition now required that the whole *system* of propositions to which it belongs be held up to reality (like a yardstick).⁴³ It follows that the ability to apply such a system, even if expressed as the knowledge of linguistic ‘rules of use’, clearly goes beyond the knowledge of mere definitional equivalents or relations of conceptual containment. To apply color terms correctly, for example, one must have access to a whole multidimensional structure of relationships among terms, not just the particular rule for the case at hand. Nor can propositions expressing rules that are ‘grammatical’ in this extended sense be formally reduced to tautologies in the absence of the positing of logical relations that go substantially beyond truth-functional relations of implication and contradiction. The grasping of such propositions, and knowledge of the associated rules, cannot, then, be explained by any of the usual accounts of our access to analytic propositions; if there is an explanation for their *a prioricity*, it is not the same as the usual explanation for a tautology’s *a prioricity*. We need, then, a substantial account of our epistemic access to them as systems after all; but one point of Schlick’s linguistic account of phenomenological propositions

as tautological was just to block the need for a substantial account of their epistemology.

In any case, as Wittgenstein would soon begin to realize, the characterization of ‘phenomenological propositions’ as logically true and of their structure as just more logical form asked too much of the relatively spare and metaphysically noncommittal understanding of logical truth common to the analytic tradition. The logical positivists’ account of analytic truth as ‘truth by convention’ would soon come under fire by Quine, and his subsequent “Two Dogmas of Empiricism” would simply make, in another form, the point that the positivists had no good understanding of how a proposition could be true ‘in virtue of concepts.’ Various accounts of the partially empirical and *a posteriori* nature of the truths formerly thought to be analytic or synthetic *a priori* would follow; seldom, however, was the alternative possibility of using a more substantial epistemological conception of logic, inclusive of description of the specific structure of experience, considered or developed in the analytic tradition.

5.

Even though the dispute between Schlick and Husserl over *Wesenschau* and the synthetic *a priori* took place against the backdrop of a large number of shared assumptions and even substantial agreement about the proper nature of future philosophical practice as logical conceptual analysis, it nevertheless foreshadowed characteristics of each tradition that would soon divide them irreparably. Whereas Husserl’s eidetic analyses remained grounded in the examination of the specific character of particular perceptual domains and regional ontologies, Schlick’s spare and nominalist conception of logic and conventionalist account of logical truth eschewed the specific description of experience, preferring to operate on the level of language and understanding conceptual analysis essentially as grammatical analysis. But in connection with the epistemology of what Schlick characterized as ‘phenomenological propositions’, neither philosopher had an entirely satisfactory account. Whereas Schlick’s account asked too much of linguistic analysis, Husserl’s failed to explain the specific connection between the understanding exhibited by competent speakers and the general *experiential* conditions for the possibility of linguistic meaning, and accordingly remained burdened with an implausible doctrine of the imaginative origin of experiential concepts and a problematic account of the relationship of imagination to experience. With these specific omissions, both traditions missed out on fulfilling one of the shared hopes that originally sustained them: that the elaboration of logical structure along

the lines suggested by the technical innovations of the late 19th and early 20th century could provide a new, far-ranging and metaphysically noncommittal account of the worldly and linguistic conditions for the possibility of meaning, thus rewriting the Kantian problematic of objectivity in an explicitly anti-psychologistic and anti-idealist form.

Retrospectively, it is easy to see why both Schlick and Husserl had a problem with explaining the origin of phenomenological laws. As we have seen, although endowed with something like the necessity of logical laws, propositions describing the structure of experience have explicit reference to particular ranges of experience in a way that logical laws clearly do not; explaining their epistemological origin therefore requires a story that makes reference to the specificity of these ranges of experience without making them dependent on *factual* – hence contingent – propositions about states of affairs in these areas of experience. In any case, the idea of the logical structure of experience, if construed as a matter of conceptual structure, itself has a certain puzzling two-sidedness of regard. For it attempts to reconcile the idea of a determinate structure of *unconceptualized* experience with a *conceptual* account of that structure. Thus, a structural description of experience claims to express in conceptual terms what structure was there anyway, prior to conceptualization; but this claim leads directly to the construal of such a description as characterizing the structure of a particular domain, rather than as gesturing toward *a priori* constraints on possible meaning. Schlick, following Wittgenstein, had grasped that the results of linguistic-level conceptual analysis, properly so called, could illuminate the special connection between the *a prioricity* of certain propositions and the meaninglessness of propositions contradicting them; what he lacked was a way to make sense of this connection in the special case of phenomenological propositions. But Husserl's phenomenological analysis, even if construed as a special sort of conceptual analysis, always gestured toward the determinacy of our specific, constitutive structure of experience.

It seems likely, then, that the particular philosophical problems that arise for the theories of Schlick and Husserl stem not from any special theoretical failing on their part, but from the tensions inherent in the underlying idea of the logical structure of experience itself. As we have seen, the specificity of the structure of experience cuts directly against the possibility of a logical description of it. The more complex the specific structure of experience is, the more epistemologically and metaphysically problematic a logic of experience becomes. In this sense, the logic of experience clearly poses additional problems, beyond those already encountered in the course of giving a general theory of the epistemology and origin of logical

concepts. For the domain-specificity and complexity of the laws or rules of a logic of experience distinguish it from the general logic ascertainable in syntactic terms alone; nevertheless, the universality and *a prioricity* of the structure of experience evidently call for a logical treatment. Even if the general problems of the epistemology of logic are solved along the lines of linguistic or phenomenological conceptual analysis, then, the structure of experience will remain a substantial and determinate constraint on the possibilities of meaningful language and knowledge that resists treatment by *any* form of conceptual analysis. Neither the attempt to assimilate the structure of experience to conventional or syntactic features of language nor the attempt to explain it as an imaginative generalization succeeds in giving an adequate explanation of the origin and role of its rules and the concepts characterizing them. For the very idea of giving a description of the origin and role of concepts describing the structure of experience confronts any program of conceptual analysis with its own conditions of possibility, demanding that it give, among its examples of successfully completed analyses, one that characterizes the relation between concepts in general and their non-conceptual, experiential surroundings.

These general problems with the idea of the structure of experience seem likely to arise on any of its formulations, but their particular historical importance turns on their role in the philosophical arguments and motivations of Schlick and Husserl, and more generally on the tendency of this role to illuminate the subsequent development of the two traditions they began. Doubtless, neither philosopher completely understood the other's position, and each account, along with its associated style of analysis, could obviously have benefitted from the insights of the other. But even though neither philosopher explicitly recognized the problems involved in the idea of logical structure of experience, these problems bear a special and revealing relation to the motivation of the project of conceptual analysis in each case. It is important to note, in particular, that the problem with the logical structure of experience is not an accidental one; it probably could not, indeed, be avoided by any theory that shares with Schlick and Husserl a commitment to the union of items of empirical knowledge, understood as answerable to sensory experience, with a larger economy of deductively inferred, rationally structured items of knowledge. For the tensions that permanently problematize the idea of the logic of experience recognizably stem from just those features of it that make it obligatory for any such theory. Within the context of epistemologies of the kind both Schlick and Husserl pursued, the idea of the logical form of experience aims to domesticate the contingency of empirical knowledge within the *a priori* framework of the logical order of deductive inference, guaranteeing

that propositions characterizing experience will be inferentially or synthetically related to each other and to higher-level inferential propositions. Such a description will be necessary if propositions describing experience are to communicate at all, deductively or synthetically, with other propositions in the language; but it will be possible only if the logical grammar of base-level descriptions of experience is clear enough to establish the exact extent and character of the possibilities of description allowed by the structure of experience, as a subset of those allowed by the general grammar of language.

Whereas Schlick attempted to solve the problem by assimilating the constraints of experience to the constraints of language, and thus incurred the weighty burden of explaining the one sort of constraint as an instance of the other, Husserl's more traditional solution simply allowed for the gap between syntactically possible and experientially possible propositions and gave the imagination the role of filling it. The problem, in each case, was that the ability of the structure of experience to specifically and *a priori* constrain the possibilities of meaning and knowledge in a domain-specific and complex way was *not* theorized, and indeed *could not be* given the particularities of both styles of analysis. Whereas Schlick's propensity for linguistic-level analysis left him unable to handle the non-syntactic nature of the constraint on meaning and knowledge represented by the structure of experience, Husserl's experientially grounded analysis kept his account from capturing the special sense in which the structure of experience genuinely *does* constrain meaning. Missing from both accounts was an explanation of the possibility of significant constraints on the possibilities of meaning that are not traceable, as general logical laws arguably are, to the general metaphysics of meaning itself.⁴⁴

Could this lack be solved, then, by some new or hybrid style of conceptual analysis that looks both in the direction of experience and of meaning to describe such experiential constraints as operate on the possibilities of meaning? It is impossible to foreclose such a possibility, but a clear understanding of the problem strongly suggests that no such style is possible. For the idea that the structure of experience substantially constrains the grammatical possibilities of linguistic meaning attempts to capture at once both the contingency of our epistemic situation – our dependence on a specific constitution that need not have been as it is – and the necessity of this situation as a presupposition for any item of knowledge that we will understand as answerable to experience. The attempt to express the source and nature of the logical structure of experience would then be the attempt to represent conditions, the failure of which would be indescribable.⁴⁵

Read as an instructive parable, then, the Husserl/Schlick debate and its outcome suggests the somewhat troubling thought that experience might have a specific character that is indeed capable of substantially constraining the logical possibilities for the meaning of propositions but is nevertheless *inexpressible* in descriptive terms. This thought has seldom been expressed in either the phenomenological or the analytic tradition. But we have seen how the tensions that led both to the analytic rejection of phenomenology and to the subsequent Wittgensteinian and Quinian repudiation of the logical positivist account of analyticity can be understood in terms of it. In a broader sense as well, the idea of the logical structure of experience recognizably integrates perennial tensions that have characterized the methodological self-consciousness of analytic philosophy. For whereas the conventionalist picture of logical structure characteristic of Schlick's analytic methodology would soon cede to the more flexible and multifarious practices of 'ordinary language' philosophy, the underlying practice of giving conceptual *clarifications* to which the tools of formal logic apply would remain the guiding thread of analytic philosophers' understanding of their own methodology. In its Sellarsian and Rylean forms, this practice would produce the origins of contemporary philosophy of mind: Ryle's "grammatical analysis" project and the functionalism that emerged from the work of Sellars, Putnam, and Fodor would aim to characterize the mind in terms of such relations and properties of mental states as are evident from our linguistic descriptions of them. But the thought that, for deep-seated and internal reasons, the logical structure of experience may not be expressible in linguistic terms, provides the beginning of an explanation for the oft-noticed lack of a satisfying account of the nature of experience on these theories, as well as for the peculiar and longstanding difficulty of redressing this lack with an alternative account.

In the perspective of historical analysis, then, the disagreement between Husserl and Schlick about the synthetic *a priori* can be seen to arise from the divergence in the response of their methodologically distinct analytical programs to a common problem, the problem of the representability of the logical structure of experience. Both projects require an account of the logical structure of experience, but problems arise for both precisely when they attempt to describe the metaphysical and epistemological status of this structure. Whereas Husserl's substantive account of the epistemology and metaphysics of the structure of experience ties him to an implausibly strong doctrine of imagination, Schlick's sparer linguistic and nominalist account lacks the explanatory resources to make sense of the nontautological but nevertheless *a priori* status of propositions about the structure of experience. The similar origin of these difficulties in the two main

traditions of twentieth-century philosophy suggests the presence of an underlying problem of substantial comprehensiveness and intractability with the description of the structure of experience, one whose consequences for explanatory projects in epistemology and philosophy of mind may still not be fully understood.

NOTES

- ¹ Schlick (1910), pp. 51–61, where Schlick somewhat misleadingly understands Husserl’s anti-psychologism as committing him to an “independence” theory of truth whereby the truth of a proposition is conceived in complete independence of any concrete acts of judgment or comprehension.
- ² Schlick (1910), pp. 59–61.
- ³ Schlick (1913), pp. 146–147.
- ⁴ Schlick (1913), p. 149.
- ⁵ *General Theory of Knowledge* (henceforth: *GTK*) Section 5.
- ⁶ *GTK* section 18, p. 139.
- ⁷ *GTK* section 18, pp. 138–141.
- ⁸ *Logical Investigations* (henceforth: *LI*) pp. 663–664.
- ⁹ *GTK* section 18, p. 139.
- ¹⁰ Schlick (1930).
- ¹¹ p. 166.
- ¹² p. 167.
- ¹³ p. 169.
- ¹⁴ p. 168. Wittgenstein himself had rejected Husserl’s account of phenomenological propositions as synthetic *a priori* in response to a query from Schlick. For a description of the reason for Wittgenstein’s rejection in the context of the “phenomenological” focus of Wittgenstein’s own project, see Hintikka and Hintikka (1986, pp. 151–154).
- ¹⁵ p. 165, p. 169.
- ¹⁶ p. 169.
- ¹⁷ Schlick’s article was entitled “Gibt es ein materiales apriori?”; Wilfred Sellars’ translation of this title as “Is there a factual a priori?” somewhat obscures the relevance of the formal/material distinction to the basis of Schlick’s critique.
- ¹⁸ Van de Pitte, p. 202.
- ¹⁹ Van de Pitte, pp. 206–207.
- ²⁰ Shelton, p. 559.
- ²¹ Section 67.
- ²² This interpretation is outlined in Smith (2000).
- ²³ Section 68.
- ²⁴ *LI* II 28, pp. 394–395; 31, pp. 399–401.
- ²⁵ *LI* II 1 1, pp. 338–339; II 1 4, p. 345.
- ²⁶ *LI* s. 63, p. 825.
- ²⁷ In *LI* 4 sections 12–14, Husserl gives this example in connection with the ‘grammatical’ distinction between nonsense and absurdity. This distinction, too, depends on the

formal/material distinction: nonsensical propositions violate the formal, categorial laws of the possible of meaning, whereas absurd propositions violate synthetic a priori laws grounded in non-formal concepts. Thus, “There is a round square” violates none of the formal laws governing the combination of parts of speech to form a meaningful proposition, but runs afoul of specific, phenomenological laws governing the particular material region involved.

²⁸ *Ideas* I, s. 11.

²⁹ *Experience and Judgment* (henceforth: *E&J*), II, 1, 47, pp. 198–199, pp. 238–239.

³⁰ *E&J*, III.1, pp. 317–318.

³¹ *E&J*, III.3, pp. 374–375.

³² *E&J*, III.1, pp. 332–333.

³³ J. N. Mohanty (1989, pp. 25–35) illuminatingly explains Husserl’s method of imaginative free variation in detail, and considers the relationship of arbitrariness to the universality of the results. Mohanty suggests that Husserl conceives of the arbitrariness of examples in free variation on analogy with the arbitrariness of the concrete example used for a mathematical (for instance a geometrical) proof, and that this analogy is misleading. For there is little reason to suppose that the realm of phenomenologically discoverable essences is *constituted* or defined by underlying laws, principles, and regularities such as those that allow us to be assured of the genuine arbitrariness of an example in mathematics. Mohanty also considers possible objections to Husserl’s method on the ground of its similarity to induction, its apparent assimilation of possibility to conceivability, and its circular presumption of already existing knowledge of categorial types.

³⁴ *E&J*, III.1, pp. 321–323.

³⁵ *E&J*, III.1, pp. 321–323.

³⁶ It should be noted, though, that the methodology of imaginative free variations in this form would only apply to *some* of Schlick’s examples. For while the relational structure of colors and sounds clearly depends on regional or material categories, Schlick also discusses the exclusive relation between two differing attributions of height to the same individual. Because it is an aspect of the structure of *quantity* – according to Husserl a formal rather than a regional category – the necessity characterizing this relation would presumably need to be explained on the level of formal rather than regional ontology.

³⁷ The problem is not that phenomenological rules could not be conventional rules of use stipulating relationships among restricted sets of signs. It is that such rules of use would not even *be* phenomenological rules in the absence of an understanding of their meaning. That makes the rules depend on the underlying meaning of the terms constrained by them, rather than (as the thoroughgoing conventionalist would have it) the other way around.

³⁸ In Wittgenstein (1929), p. 31, he claims only that *magnitudes* are part of logical form, so that the logical form of the simplest propositions describing colors or spatial relations in the visual field ineliminably refers to numerical quantities. In *Philosophical Remarks*, he seems to go further, considering that the logical form of, e.g., a proposition attributing color already contains the whole system of color-relations.

³⁹ *TLP* 3.327–3.328.

⁴⁰ Hintikka and Hintikka (1986, pp. 116–136) consider at length the relationship between the exclusionary structure of color terms and the *Tractatus* picture of meaning. They conclude that, *contra* such interpretations as Anscombe’s (1959, pp. 25–28), the incompatibility of color-terms does not vitiate the *Tractatus* thesis of the independence and truth-functionality of simple propositions. For, Hintikka and Hintikka (p. 122) point out, there is no reason to suppose that a color-ascription like “this is red” has the subject-

predicate form that it superficially appears to have. This leaves open the possibility – which Wittgenstein himself appears to have considered – of a more complex analysis of the relations among such propositions that would reveal them as reducible to genuinely logical relations; for instance the mutual exclusivity of color terms might simply reflect that color-discourse represents each color with a different *name* because the function ascribing colors to visual field points is essentially one-valued. Hintikka and Hintikka in fact recommend such a possibility as a legitimate extension of the *Tractatus* picture. Whatever the extent of the consistency of the *Tractatus* with such a picture, however, it was (as Hintikka and Hintikka themselves explain (p. 131)) the question of color attributions that, at least in part, led Wittgenstein to abandon the Tractarian doctrine that propositions can be compared with reality individually in favor of the alternative picture that Schlick now recommended.

⁴¹ See, e.g., *Philosophical Remarks* (henceforth: *PR*) 1–4, where Wittgenstein speaks of phenomenology as establishing grammatical possibilities, and considers the possibility of establishing the “grammatical” structure of color space. See also the comprehensive and enlightening treatment of Wittgenstein’s move from considering a “phenomenological” language to favoring a “physical” one in Hintikka and Hintikka (1986, pp. 145–160).

⁴² One sort of problem that Wittgenstein thematizes in the *Philosophical Remarks* traces to the Tractarian doctrine of the unrepresentability of logical form. If the structure of experience is part of logical form, then it, too, must be unrepresentable: “If I could describe the point of grammatical conventions by saying they are made necessary by certain properties of the colours (say), then that would make the conventions superfluous, since in that case I would be able to say precisely that which the conventions exclude my saying. Conversely, if the conventions were necessary, i.e., if certain combinations of words had to be excluded as nonsensical, then for that very reason I cannot cite a property of colours that makes the conventions necessary, since it would then be conceivable that the colours should not have this property, and I could only express that by violating the conventions” (*PR* 4, p. 53).

⁴³ E.g., *PR* 82: “It isn’t a proposition which I put against reality as a yardstick, it’s a *system* of propositions.” Waissman’s notes from 25 December, 1929 give a fuller explanation of this: “I once wrote: ‘a proposition is laid like a yardstick against reality. Only the outermost tips of the graduation marks touch the object to be measured.’ I should now prefer to say: a *system of propositions* is laid like a yardstick against reality. It’s not the individual graduation marks that are applied, it’s the whole scale. . . . If, for instance, I say that such and such a point in the visual field is blue, I not only know that, I also know that they point isn’t green, isn’t red, isn’t yellow etc. I have simultaneously applied the whole colour scale. This is also the reason why a point can’t have different colours simultaneously; why there is a syntactical rule against $f.x$ being true for more than one value of x . For if I apply a system of propositions to reality, that of itself already implies – as in the spatial case – that in every case only one state of affairs can obtain, never several.” (*PR*, p. 317).

⁴⁴ In other terms: the structure of experience constrains possibilities of meaning – in the sense that propositions running afoul of it become meaningless – but the obtaining of the structure of experience does not – as the obtaining of logical laws does – play a role in explaining the metaphysical possibility of *any* proposition’s having meaning.

⁴⁵ Wittgenstein already had this idea – a descendent of the Tractarian doctrine of the unrepresentability of logical form – in the *Philosophical Remarks* (see endnote 42).

REFERENCES

- Hintikka, Jukka and Merrill B. Hintikka: 1986, *Investigating Wittgenstein*, Blackwell, Oxford.
- Husserl, E.: 1900, *Logical Investigations*, J. N. Findlay (transl.), Routledge & Kegan Paul, London (1977).
- Husserl, E.: 1913, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book*, F. Kersten (transl.), Martinus Nijhoff, The Hague (1983).
- Husserl, E.: 1948, *Experience and Judgment*, James S. Churchill and Karl Ameriks (transl.), Northwestern University Press, Evanston (1973).
- Mohanty, J. N.: 1989, *Transcendental Phenomenology*, Blackwell, Oxford.
- Schlick, M.: 1910, 'The Nature of Truth in Modern Logic', in Henk L. Mulder and Barbara F. B. Van de Velde-Schick (eds.), *Moritz Schlick: Philosophical Papers*, Vol. 1, D. Riedel, Dordrecht, pp. 41–103 (1979).
- Schlick, M.: 1913, 'Is there Intuitive Knowledge?', in Henk L. Mulder and Barbara F. B. Van de Velde-Schick (eds.), *Moritz Schlick: Philosophical Papers*, Vol. 1, D. Riedel, Dordrecht, pp. 141–52 (1979).
- Schlick, M.: 1925, *General Theory of Knowledge*, Albert E. Blumberg (transl.), Springer-Verlag, Vienna (1974).
- Schlick, M.: 1930, 'Is there a Factual a priori?', in Henk L. Mulder and Barbara F. B. Van de Velde-Schick (eds.), *Moritz Schlick: Philosophical Papers*, Vol. 2, D. Riedel, Dordrecht, pp. 161–175 (1979).
- Shelton, J.: 1988, 'Schlick and Husserl on the Foundations of Phenomenology', *Philosophy and Phenomenological Research* **48**, 557–561.
- Smith, D. W.: 2000, 'What is "logical" in Husserl's *Logical Investigations*?', Conference on *Logische Untersuchungen*, 26–28 May 2000, Copenhagen.
- Van de Pitte, M.: 1984, 'Schlick's Critique of Phenomenological Propositions', *Philosophy and Phenomenological Research* **45**, 195–226.
- Wittgenstein, L.: 1921, *Tractatus Logico-Philosophicus*, D. F. Pears and B. F. McGuinness (transl.), Routledge, London (1961).
- Wittgenstein, L.: 1929, 'Some Remarks on Logical Form', in James C. Klagge and Alfred Nordmann (eds.), *Philosophical Occasions 191–1951*, Hackett, Indianapolis (1993).
- Wittgenstein, L.: 1930, *Philosophical Remarks*, University of Chicago Press, Chicago (1975).

Paul Livingston
University of California, Irvine

Department of Philosophy
220, HOB2
Irvine, CA 92697
USA