

Introduction

I. HUSSERL'S PLACE IN THE HISTORY OF PHILOSOPHY

Edmund Husserl was born in 1859 in Moravia, then a part of the Habsburg Empire, now a part of the Czech Republic. He studied mathematics in Leipzig and Berlin, where he came into contact with the great German mathematician Karl Weierstrass. Encouraged by his friend and fellow Moravian T. G. Masaryk (also for a time in Leipzig and later first President of the erstwhile Republic of Czechoslovakia), Husserl attended lectures in philosophy given by Franz Brentano in Vienna. He devoted his life thereafter to what, from around 1908, he came to see as his "mission" – to transform philosophy into a rigorous science.

Husserl's philosophy, by the usual account, evolved through three stages. First, he overthrew a purportedly psychologistic position in the foundations of arithmetic, striving instead to establish anti-psychologistic, objective foundations of logic and mathematics. Second, he moved from a conception of philosophy as rooted in Brentanian descriptive psychology to the development of a new discipline of "phenomenology" and a metaphysical position dubbed "transcendental idealism". And third, he transformed this phenomenology, which initially amounted to a form of methodological solipsism, into a phenomenology of intersubjectivity and ultimately (especially in his *Crisis* of 1936) into an ontology of the life-world, embracing the social worlds of culture and history.

This story of three revolutions can provide, at best, a preliminary orientation. Husserl was constantly expanding and revising his philosophical system, integrating views in phenomenology, ontology, epis-

temology and logic with views on the nature and tasks of philosophy and science as well as on the nature of culture and the world – in ways that reveal more common elements than violent shifts of direction. Husserl's genius lay in his judicious integration of traditional ideas from Aristotle, Descartes, and Hume with new ideas relating, above all, to a more sophisticated understanding of mind and conscious experience derived from Brentano. Husserl is thus a seminal figure in the evolution from traditional philosophy to the characteristic philosophical concerns of the late twentieth century: concerns with representation and intentionality and with problems at the borderlines of the philosophy of mind, ontology, and cognitive science.

Volumes have been written about Husserl's influence on twentieth-century European thought, an influence which not only extended to phenomenology and existentialism but also embraces hermeneutics, poststructuralism, deconstruction, and other movements defined by the works of Heidegger, Sartre, Merleau-Ponty, Ricoeur, and others – some developing and some reacting against Husserlian ideas. Much has been written, too, about Husserl's relation to Austrian philosophy around the turn of the century (to the work of Bolzano, Brentano, Meinong, Twardowski, and others) and about his relations to analytic philosophers such as Frege, Wittgenstein, Carnap, Sellars, and Quine. The focus of the present set of essays is somewhat different. Following the pattern set by other volumes in this series of *Cambridge Companions to Philosophy*, this volume will study Husserl as a philosopher in his own right, alongside Plato, Aristotle, Descartes, and Leibniz. While there will be some historical treatment of Husserl's work and influence, most of the essays will deal in conceptual interpretation and systematic analysis. We shall look primarily at Husserl's most important philosophical contributions – what is original in them and what seems most significant in them today.

These essays resist one recent fashion in intellectual history – to think in terms of a radical break between “modern” and “postmodern” philosophy, with Husserl the last of the great Cartesians.¹ Evolution is a piecemeal affair, in philosophy as in nature, and sharp breaks between philosophical epochs are artificial constructs. Descartes shared much with his Aristotelian-Scholastic predecessors, and Kant's break with his “uncritical” predecessors also turns on many shared assumptions. Moreover, as Michael Dummett, among others, has demonstrated (1993), the idea of a radical break in our

own century between analytic philosophy in England and America and the work of Husserl and his contemporaries in continental Europe conceals a multitude of shared problems and even shared solutions. Similarly, arguments purporting to establish a radical rejection of Husserlian thought by Heidegger and others often prove, on closer inspection, to rest on the exploitation of ideas worked out in advance by Husserl himself or by his early realist disciples.² Such "breaks" serve mainly to give intellectual history an easy handle on continuities and complexities in the slow evolution of ideas.

Husserl was a systematic thinker in the classical tradition of Western philosophy. In his early writings he embraced a view according to which ontology, logic, and psychology would be developed in tandem with each other, none being given precedence over the others. His account of the ontology of universals and particulars and of parts, wholes and dependence goes hand in hand with his account of the analytic/synthetic distinction and of the nature of logical laws and of the ways in which these laws are applied to the actual events of thinking that are studied by psychology.³ Later, as Karl Schuhmann has shown, Husserl came increasingly to see the need for a single, founding discipline of philosophy. He saw philosophy in the standard sense as divided into *theoretical* disciplines – above all ontology – on the one hand, and *practical* disciplines such as ethics and aesthetics, on the other. Each of these disciplines is then divided in turn into "formal" and "material" or "regional" sub-disciplines. The entire edifice is seen as being founded, in Fichtean vein, on a universal science of consciousness as such – the science of phenomenology. Each of the disciplines resting on this foundation has its own characteristic type of object (things or objects of nature are dealt with by ontology, values by axiology, and so on). The founding discipline, in contrast, deals not with objects but with the acts of consciousness in which objects are given or experienced.⁴ The founding discipline therefore has its source of evidence within itself: only thus, Husserl held, can philosophy become a "rigorous science."

Cutting across these disciplinary divisions are classical philosophical concerns – which reappear at difference points in Husserl's writings – with the relations between mind and body, with realism versus idealism, with solipsism and intersubjectivity. The essays which follow address these and related issues as Husserl saw them. The focus, as already mentioned, will be on the conceptual

import of Husserl's various theories. Inevitably, the essays will omit some important themes, and this Introduction will address the more important of these in simple terms. Collectively, the essays will offer a unified picture of the most important aspects of Husserl's thinking while acknowledging controversies around his conception of intentionality, his changing focus in methodology, and the unstable combination in his thinking of tendencies toward both realism and idealism.

II. HUSSERL'S LIFE AND CAREER

Husserl was born on April 8, 1859 in Prossnitz (Prostějov), a not unimportant town within the territory of the present Czech Republic.⁵ His parents were German-speaking liberal Jews (Husserl converted to Protestantism at the age of 27). In 1876 he moved to Leipzig, where he studied astronomy, also attending lectures in mathematics and physics and, to a limited degree, in philosophy (given by Wilhelm Wundt). In 1878 he moved to Berlin, where he concentrated his energies especially on the lectures of Weierstrass. In 1881 he moved on to Vienna in his native Austria, concentrating still on mathematics, in which subject he received the doctorate in 1883 for a dissertation on the theory of variations.

From 1884 to 1886 Husserl attended philosophy lectures given by Franz Brentano in Vienna. The framework of Brentano's philosophy, above all his re-introduction to philosophy of the problem of intentionality and his subtle combination of psychological and ontological concerns, would determine Husserl's thinking to the end of his life. On Brentano's recommendation Husserl transferred to Halle in order to work for the habilitation degree under Carl Stumpf, a member of the first generation of Brentano's students. Husserl's habilitation thesis on the concept of number was completed in 1887; his examiners included not only Stumpf but also Georg Cantor, the inventor of the theory of sets, and Husserl enjoyed friendly relations thereafter not only with Stumpf and Cantor but also with the mathematician Hermann Grassmann, son of the author of the *Ausdehnungslehre*.

In October 1887 Husserl was made *Privatdozent* in the University of Halle and for a period his energies were concentrated on investigations on logic and the foundations of mathematics, most especially

on the role of and on the justification of the use of "inauthentic" or "signitive" processes – processes involving the mere manipulation of symbols – in mathematical practice. Like Brentano, Husserl is at this stage unsympathetic to the type of philosophy then predominant in Germany. In his lectures on the philosophy of mathematics he refers to the tradition of German idealism as a "murky vapor of idealistic or better mystical pseudo-philosophy."⁶

In 1891 he published his first book, the *Philosophy of Arithmetic*, a work which was reviewed *inter alia* by Gottlob Frege, who notoriously (and to some degree unfairly) charged it with propounding a doctrine of psychologism. Frege's influence on the development of Husserl's thinking was, in contrast to what is commonly held, far less important than that of Lotze, Bolzano, and Twardowski. It was the combined effect of these three thinkers which served to point Husserl in the direction of the avowed Platonism of the "Prolegomena to Pure Logic" which constitutes the first volume of Husserl's *magnum opus*, the *Logical Investigations* of 1900–01. This Prolegomena comprises a devastating critique of all forms of psychologism in philosophy, i.e. of all attempts to conceive the sub-disciplines of philosophy as branches of empirical psychology. This critique had a wide influence and succeeded in bringing the heyday of psychologism to an end. While Frege's and Husserl's (and Bolzano's) attacks on psychologistic thinking share many points in common, it was Husserl's critique which was most immediate and far-reaching in its effects.

The years from 1895 to 1900 brought Husserl little professional success. In the wake of the publication of his *Logical Investigations*, however, he was appointed to the post of associate professor at the University of Göttingen. Göttingen was at this time a renowned center of mathematical research, not least through the work and influence of David Hilbert, who had hoped to acquire in the person of Husserl a representative of the new logic as colleague. Hilbert would indeed over the coming years share students with Husserl, including Kurt Grelling and Kasimierz Adjukiewicz. However, Hilbert's hopes for serious collaboration were disappointed as a result of Husserl's increasing interest in problems of "subjectivity," "transcendental idealism," and in the methodology of the new discipline of phenomenology – concerns which often overshadowed the sort of detailed analysis of problems at the borderlines of logic, ontology,

and descriptive psychology which had characterized the *Logical Investigations* and other early writings.

The importance of Husserl's work in the Göttingen years for the development of phenomenological philosophy has been clearly set out by Mohanty in his essay herein. Husserl's initial influence began to make itself felt however not in Göttingen, but among a group of students of Theodor Lipps in the University of Munich. The members of this group had been inspired to rebel against their teacher Lipps – himself an erstwhile proponent of psychologism – by a certain Johannes Daubert, a talented organizer who had read the *Logical Investigations* already in 1902 and had persuaded his fellow students to accept this work as their philosophical bible. The term "phenomenological movement" was first used by the group around Daubert to describe its activities, which were marked also by an interest in the work of Brentano and his school and in wider associated developments in logic, linguistics, and empirical and theoretical psychology. The Munich phenomenologists were effective propagandists for the new movement. Only after members of the Munich group, especially Adolf Reinach, had moved to join Husserl in Göttingen, did Husserl's teaching there begin to have an effect, and Spiegelberg refers in this connection to the "Munich invasion of Göttingen" which occurred in the summer semester of 1905.⁷

The members of the Munich group propounded what might be called a "realist" phenomenology, drawing especially on those aspects of the *Logical Investigations* which relate to the investigation of the essential structures of acts, meanings, expressions, signs, and entities of other types. Phenomenology, on this account, consists in setting forth in non-reductive fashion and as faithfully as possible the *a priori* laws which govern the relations between these different sorts of objects in different regions of investigations. Reinach exploited this method in relation to the essential structures of legal and quasi-legal uses of language (for example in promises, commands, requests, etc.). In this way he developed a theory of speech acts of exactly the sort which was later worked out by Austin and Searle in the 1950s and 1960s.⁸ In other respects, too, Munich phenomenology bears interesting parallels to more recent developments in analytic philosophy,⁹ and the Munich phenomenologists, again in the person of Reinach, were among the first in Germany to read the work of Frege.

In 1906 Husserl was promoted to a personal chair in Göttingen. There is detectable in his thinking from about this time an increasing interest in and sympathy for the tradition of *German* philosophy (as contrasted with the *Austrian* philosophy of Bolzano, Brentano, Twardowski, Meinong, or Mach). In the winter semester of 1907/08, Husserl gave a four-hour lecture on "Kant and Post-Kantian Philosophy," and in September 1908 he drafted manuscripts on "transcendental phenomenology and transcendental logic" in which his own method is compared to Kant's "transcendental-logical method."

In 1912 he completed the manuscript of the three books of the *Ideas* and in 1913 the first of these appeared in print in the first volume of the newly founded *Jahrbuch für Philosophie und phänomenologische Forschung*, Husserl's "yearbook" of phenomenological research.¹⁰ With the outbreak of war, Husserl was caught up, like so many others at the time, by feelings of patriotism and military fervour. From this time also one can detect an interest on Husserl's part in the religious works of Fichte. In 1916 Husserl accepted a call to the University of Freiburg where he succeeded the Neo-Kantian idealist Heinrich Rickert. Here he made the acquaintance of one Martin Heidegger, and was joined by students from Göttingen, among them Edith Stein and Roman Ingarden. Stein and Heidegger became involved with the long and still uncompleted project of editing Husserl's many shorthand manuscripts for publication, working above all on the second and third books of the *Ideas* and the work on the phenomenology of the consciousness of internal time.

By the early 1920s Husserl was the leading philosopher in Germany. In 1923, at the age of 64, he received a call to Berlin, but chose to remain in Freiburg in order to be able to complete the many works he still intended to write. Those who attended his lectures in this period include philosophers as important as Günther Anders, Rudolf Carnap, Marvin Farber, Aron Gurwitsch, Charles Hartshorne, William Kneale, Aurel Kolnai, Emmanuel Levinas, Herbert Marcuse and Arnold Metzger. In 1929, an article by Husserl on the topic of "Phenomenology" appeared in the *Encyclopedia Britannica* in telescoped form. In this year Husserl retired and was succeeded by Heidegger in his professorship in Freiburg. In the same year, Husserl lectured in Paris to an audience which included Gabriel Marcel, Eugène Minowski, and Jean Cavailles. He then published, after a long period during which no original major work by Husserl had appeared, the

Formal and Transcendental Logic. In 1931 the French version of the *Cartesian Meditations* was published and in that same year Husserl gave a lecture on "Phenomenology and Anthropology" to a meeting of the *Kantgesellschaft* in Berlin, attended by an audience of some 1600 persons.

From 1933, however, Husserl began to face problems connected with the political conditions in Germany. In 1934, as a Jewish professor emeritus, he was effectively deprived of his library privileges in the university by his former colleague Heidegger. In the same year he began a new phase of work on the concept of the life-world, whose roots trace to the Second Book of the *Ideas*. In 1935 he began negotiations with the Prague Philosophical Circle to have his manuscripts transferred to what then seemed like the relative safety of Bohemia. Towards the end of the same year he traveled to Prague with the intention of making arrangements for a return to his former home. In November, he gave lectures in Prague on the topic of the "*Crisis of European Sciences*," lectures which were published in 1936 as a 100-page article in the Belgrade journal *Philosophia*. In 1937, he was refused permission by the *Reichsministerium* to participate in the International Congress of Philosophy in Paris. On 27 April 1938, Husserl died. His library and manuscripts were smuggled to Belgium where they remained in safekeeping until after the war. One year later his *Experience and Judgment* was published in Prague, though almost the entire edition was destroyed by German troops during their march into the city.

III. HUSSERL'S PHENOMENOLOGY

For over five decades Husserl lectured and published works on ontological, epistemological, phenomenological, and logico-linguistic matters. While his views in ethics, politics, and theology were less evident, he lectured on such matters, and his published work carries implications for these areas also.¹¹ In this introduction we outline Husserl's philosophy by sketching his basic views in different fields. Within that context, the connections among these views, and thus his methodology and program, will emerge. Our survey is designed to serve as a framework for the more detailed discussions pursued in the essays to follow.

We begin with phenomenology, the study of "phenomena" in the

sense of the ways in which things appear to us in different forms of conscious experience. While nowadays generally used as a name for the philosophical movement formed by Daubert, Husserl, Pfänder, Heidegger, among others, the term "phenomenology" has a longer history as the name of a special sub-discipline of philosophy.¹² It was so used in 1736 by the German Pietist Christoph Friedrich Oetinger to refer to the study of the "divine system of relations" between the things on the surface of the visible world. Later in the eighteenth century, Johann Heinrich Lambert (a mathematician, physicist, and philosopher influenced by Christian Wolff) used *Phänomenologie* for the theory of the appearances fundamental to all empirical knowledge, and Kant adopted the term in a similar sense. Phenomenology in these early manifestations is above all a *descriptive* enterprise, a theory of appearances, of symptoms, as contrasted with those disciplines which deal in *causal explanation*, and with what lies behind the appearances. It was in this sense that Brentano distinguished between "descriptive" and "genetic" psychology, and Husserl's own phenomenology grew precisely out of descriptive psychology in the Brentanian sense.

Husserlian phenomenology seeks the description and structural analysis of consciousness, as opposed to an account of its causal origin in brain activity or elsewhere. Consciousness is to be studied precisely as it is experienced, and accordingly the *objects* of consciousness, too, need to be characterized precisely as they are given in experience, with no metaphysical reinterpretations (inspired by reductive or other motives). It is in this sense that we are to understand Husserl's slogan: "To the things themselves!" Phenomenology is to deal with the phenomena, with the objects as we experience them in consciousness and with our different ways of "relating" to these objects via intentionality.

Husserl officially defined the science of phenomenology as the study of the essence of conscious experience, and especially of intentional experience (*Ideas* I, §§ 33-34). This definition fits Husserl's work as well as that of his successors: Adolf Reinach, Max Scheler, Roman Ingarden, Alfred Schutz, Martin Heidegger, Maurice Merleau-Ponty, Jean-Paul Sartre, and recent analytic phenomenologists such as Dagfinn Føllesdal and Hubert Dreyfus. Different phenomenologists have placed the emphases in different places in giving an account of the structures of experience. Husserl himself emphasized

consciousness as "pure" rational, mental activity, and developed a theory of the essential structures of consciousness in terms of the parts and moments of our mental acts. Heidegger moved away from this intellectualistic account of experience and generally avoided the terms "consciousness" and "subject," which he saw as being laden with Cartesian, dualistic assumptions. For the Heidegger of *Being and Time* (1927), phenomenology is concerned with what he calls *being*, and above all with the being (the experience and behavior) of man, and with the different ways in which this human experience and behavior (a matter of our relations to others, to the surrounding world, to tools and equipment, to history) can be "authentic" and "inauthentic." Thus, Heidegger in his own way endorsed Husserl's methodological incantation to return to the things themselves, as did other existentialist phenomenologists such as Sartre (1937, 1943), who emphasized bodily experience while casting aspersions on the Husserlian assumption of a "pure" consciousness and of a "transcendental ego."

Husserlian ideas have also taken root outside the phenomenological tradition, not least in contemporary cognitive science, a movement of thought which first came to prominence through the overthrow of behaviorism by cognitive psychologists in the 1970s. Underlying much of this work is a research strategy which Jerry Fodor, following Carnap, calls "methodological solipsism" and which amounts to the abstraction of mental activity from its physical basis. As Carnap saw, methodological solipsism is equivalent to Husserl's basic method of "phenomenological reduction."¹³ Many proponents of the new cognitive science adopted in addition a functionalist model of the mind, arguing that mental activities are to be compared with computational functioning, so that the mind would stand to the brain as the computer's software stands to its hardware. There are even some traces of the computer analogy of mind in Husserl's early writings,¹⁴ though the later Husserl would surely have rejected functionalism and all that goes with it, on the grounds that it does not do justice to "subjectivity," to the ways in which consciousness is given "from the inside." More recently, in his *The Rediscovery of the Mind*, John Searle has argued that it is precisely consciousness, rather than neural or computational function, which defines the mind. Searle argues, as did the later Husserl before him, that consciousness must be studied

from the first-person point of view, for only thus is it possible to do justice to its irreducibly subjective structures.

What we might call the phenomenological attitude in philosophy is of course much older than Husserl and his successors, and traces of it can be detected in Berkeley, Hume, and in other British empiricists. With Husserl, however, phenomenology first emerged as a distinctive philosophical discipline, much as – in the eyes of many contemporary philosophers – epistemology first took on sharp contours in the seventeenth century through the work of Descartes. If Husserl did not single-handedly invent phenomenology (any more than Descartes invented epistemology), certainly he brought it into its own as a discipline. In order to grasp the nature of the discipline itself, however, we need to separate it from other doctrines with which it has been associated, including even the specific method which Husserl proposed.

This method consists in what Husserl called the phenomenological reduction or *epoché* (literally: abstention).¹⁵ We are to “bracket,” or abstain from positing the existence of, the natural world around us. That is, we put out of action the general thesis of the everyday “natural” standpoint, our background presupposition that there exists a world independent of our experience. We will then, Husserl holds, be in a position to describe “pure” consciousness, abstracting from its embeddedness in the world of nature. By carrying out the reduction we abandon the “natural” or “naturalistic” attitude which takes the world for granted and come to adopt instead the phenomenological or what is sometimes called the “transcendental” attitude.

We grasp in phenomenological reflection that consciousness is intentional in the sense of *being directed towards an object*: consciousness is consciousness of something. The phenomenologist attends to acts of consciousness and to the objects they “intend” just as we experience and intend them. The use of the method of bracketing implies that such attention involves no concern for whether these objects really exist. The method is a technique for focussing on the act and on the correlated object precisely as they are experienced. Each such act may include validity-claims, and these too fall within the scope of reflection, but as claims only: their validity is neutralized. To describe things as we experience them from the first-person point of view is to describe also the forms of consciousness in which we experience objects, their mode of being

given. The phenomenologist can apply his method to the things of fiction or mythology as well as to the things of physics, to the things of imagination as well as to the things of perception and memory, the devil as well as the deep blue sea. Through the *epoché* all objects become reduced to their experienceable properties, and all objects are in this respect equal in the eyes of consciousness.

Among Husserl's most interesting results are his concrete phenomenological analyses of various features of experience. These concern analyses of the structures of perception and reasoning, and of the relation between bare ("signitive") linguistic reference to an object and "fulfilled" perceptual experience of the same object. They concern the experience of oneself and of one's body, of others, of objectivity and intersubjectivity in judgment and belief, and of logical and mathematical entities. Husserl's work in these areas is studied in various essays herein.

Husserl used the method of *epoché* (in his *Ideas* and later works), not only for purposes of phenomenological description and analysis of forms of consciousness, but also – according to a common line of interpretation – to ground a foundationalist epistemology and an idealist metaphysics. Husserl himself insists that it is exclusively consciousness (or conscious subjectivity, the "pure ego") that has absolute being; all other forms of being are such as to depend on consciousness for their existence. (See *Ideas* I, §49.) The *epoché* in this way leads to a metaphysical "nullification" of the world, to the dissolution of the world into the realm of consciousness.

On the one hand, then, the Cartesian privileging of the ego – and the Fichtean desire for an absolute epistemological foundation for philosophy – lead to the most radical of changes: to the adoption of a position according to which the world itself is reduced to the status of a mere correlate of consciousness, a move which flows from the conviction that philosophy must have a grounding insight which has its source of evidence within itself. This idealist Husserl is even more radical than Kant, insisting (again with Fichte) that there is no thing-in-itself beyond the reach of possible experience. Even the thing-in-itself is a mere rule for the synthesizing activities of consciousness. Moreover, every sort of thing is associated essentially with a certain sort of conscious experience in which it reaches a most adequate level of givenness.

On the other hand, however, it appears that nothing is changed with the performance of the *epoché*: we simply change our attitude toward the world, suspending all theses as to the latter's existential dependence or independence. Phenomenologists who have carried out the phenomenological reduction continue to believe that the world exists; but they do not make use of this fact in the practice of phenomenological description of experience. Husserl, like Descartes, certainly awarded a privileged role to the evidence we have of our own acts and states of consciousness. But on the question of the existence of the world beyond consciousness, Husserl sought also to do justice to the claims of common-sense realism (claims to the effect that, for example, things like trees exist independently of consciousness and are the objects of our experiences). As the essays below attest, these Cartesian, Fichtean and common-sense realist tendencies in Husserl are subjects of intense controversy.

The approach to Husserl's philosophy as if it were a matter of practicing a special kind of reflection on consciousness is just one among several alternatives. Thus one may use Husserl's work also as the basis for a study of intentionality itself. Where performing the *epoché* requires neutrality about questions of ontology or metaphysics, to pursue the theory of intentionality is to invite ontological questions about mental acts, their contents, and the objects towards which they are directed. Yet another approach is to set out Husserl's own ontology – his theory of part, whole, and dependence – bringing in special considerations pertaining to the ontology of consciousness and intentionality only later. Still another alternative is to develop Husserl's phenomenology as an exercise in epistemology, somewhat as Descartes turns to the mind by way of his quest for certainty: ontology emerges then as an account of the world we know.

In fact, Husserl took all of these approaches, in different works. This fact, again, should lead us to view his philosophy as a unity and to avoid giving total precedence to any single element. To see his philosophy as having its foundations exclusively in either phenomenology or ontology or epistemology (the claims of each have been advanced) is to miss the mutual dependence among the different aspects of his thinking. And because the concept of dependence or

foundation itself is used in all his work – in ontology, in epistemology, and in phenomenology, the very question of foundationalism is more complicated in Husserl than it is in most philosophers.

IV. THE PROBLEM OF INTENTIONALITY

Two groups of solutions to the problem of intentionality – the problem of providing a unified account of the directedness towards objects of mental acts – have been advanced in the history of the subject, which we may call the relational and the adverbial solutions respectively.¹⁶ *Relational* accounts, as the name suggests, see intentionality as a relation between a subject or act and an object: thus if John sees a red square, then he or his act of seeing stands in a certain relation to the object he sees. *Adverbial* accounts, by contrast, see intentionality as a mere feature of the subject or act, a feature that may be expressed linguistically by means of adverbial modifiers, as in "John sees redly" or "John sees squarely." Brentano embraced a radical version of the adverbial theory, asserting that the object of consciousness is in every case existent in the mind: the act is affected by the fact that the object is "intentionally inexistent" within it, as Brentano puts it in a famous passage from the *Psychology from an Empirical Standpoint* of 1874.¹⁷ Adverbial accounts have the merit of providing a theory of intentionality which will yield the same structural account for all acts, drawing on those features which acts share in common as they are experienced from the internal, first-person point of view. Such accounts have problems, however, in doing justice to the ways in which, through conscious experience, we are able to transcend the orbit of our own mind and come into genuine contact with objects in the world. Relational theories of intentionality, in contrast, take as their starting point the existence of a genuine relation between act and object, but they are thereby not in a position to provide a uniform structural account of intentionality that would be valid for all acts. This is because some acts are, of course, such as to lack a (genuine) object entirely, yet remain for all that internally indistinguishable from acts of the more normal, veridical sort.

One of Husserl's principal contributions to philosophy is to have provided a new sort of solution to this problem. Certainly in his earlier work there are passages where Husserl treats the problem of

intentionality in relational fashion, as a special problem of ontology.¹⁸ But how can there be an intentional relation if in some cases the object of perception or thought does not exist?¹⁹ In Husserl's middle and later work, on the other hand, intentionality appears consistently as a phenomenological property of acts of consciousness, something we immediately experience: we are in every case conscious of an object whether or not such an object actually exists in the world beyond consciousness. With this the adverbial theory once more takes center-stage. When we view his work as a whole, however, we shall see that Husserl provided an account which enables us to join these two sides of intentionality together – to do justice to both the ontological structure of mind and its phenomenological character.

The concept of intentionality has its roots in Aristotle.²⁰ In perception, Aristotle held, the mind takes on the form but not the matter of the object known. Thus, for example, the eye's matter becomes impressed by the color (form) of what is seen. Arabic philosophers later refined Aristotle's theory. Distinguishing form-in-mind and form-in-object, Avicenna called the former *ma'ná*, i.e., meaning or message. Medieval philosophers translated Avicenna's term by the Latin *intentio*, from the verb meaning to aim or stretch toward something (specifically by pulling in the bowstring): the form-in-mind, the mental content, then *intends* the form-in-object. Notions of intentional content in this sense were a common feature of much Scholastic philosophizing. Through the influence of the British empiricists' notion of "idea" and of German idealist philosophy, both of which tended confusedly to draw all objects into the mind and thus to eliminate the distinction between object and object-of-thought, the classical notion of intentionality became submerged.

While the term – and the problem – were revived by Brentano in 1874, Brentano was still sufficiently influenced by Descartes and the empiricists to find it difficult to break out of the immanentistic (adverbial) view. A step in a more appropriate direction was made by his student Kasimir Twardowski in a work entitled *On the Content and Object of Presentations* of 1894, which drew a sharp distinction among act, content, and object of presentation (*Vorstellung*) – a distinction essential to any adequate theory of intentionality. Every act, Twardowski held, even a hallucination, has both a content and an object, though the latter need not exist. Thus, the way is open for a

new sort of relational theory, of a sort which is able to do justice – in its fashion, and at a price – not only to standard (veridical) experiences of the sort which the Scholastic philosophers were comfortable with, but also to non-standard (non-veridical) experiences, which deviate in different ways from the norm. Alexius Meinong, another Brentano-student, extended Twardowski's relational theory of intentionality in systematic fashion, and has since become notorious for the attention he paid to the jungle of non-standard entities apparently created or picked out by cases of deviant intentionality. A uniform structural account of acts is provided on the basis of the Twardowski-Meinong relational theory by postulating that every act has some object of a precisely tailored sort. Meinong's "The Theory of Objects" (1904) at the same time exploits the notion of non-existent object as a basis for a new sort of ontology which would cast off that "prejudice in favor of the actual" which had in his eyes so profoundly affected the work of previous ontologists. Objects themselves, Meinong held, are "beyond being or nonbeing."

In this way, clearly the principal flaw of the relational theory of intentionality could be avoided: a uniform theory of the intentional relation can be provided for all acts of whatever sort. However, the relational theory inherits the principal flaw of adverbialism, since the relation to the standard, existent objects in the world – that real relation which is characteristic of successful veridical acts as we normally conceive them – still remains to be explained. How does that relation differ from the ubiquitous relation which all acts bear to the Meinongian "pure" objects that float in a realm "beyond being and non-being"?

Husserl, too, extended and ramified Twardowski's notion of intentional content, first in an early essay "Intentional Objects" (1894) and then again in the *Logical Investigations*. The conception of content that is defended in this latter work harks back, first of all, to Bernard Bolzano's logic, and through Bolzano to the Stoic conception of the *lekton* as that which is expressed and communicated in language.²¹ This notion of *lekton* or objective proposition has reappeared throughout the history of logic. Thus, it is to be found in the fourteenth century in the work of Adam Wodeham and in the seventeenth century Port Royal Logic. Again, the British empiricists (similar in this respect to Descartes and the German idealists) lie outside this tradition, working instead with the confusingly ambiguous no-

tion of "idea" in a way which made it difficult for them to draw a clear distinction between ideas as tokens and as types. As the Stoics distinguished the subjective presentation or *phantasia* from the objective *lekton* that is its communicable content, so Bolzano in his *Theory of Science* (1837) distinguished "subjective" and "objective" ideas. The objective idea he called an "idea in itself" (*Vorstellung an sich*), the objective content that is expressed by a complete sentence he called a "proposition in itself" (*Satz an sich*).

In the first of the *Logical Investigations*, alluding to Bolzano, Husserl held that a linguistic expression intimates a "real" content of thought – a subjective idea – and expresses an "ideal" content. The real content has an internal structure: it divides into the "matter" of the act (what makes it a presentation of such-and-such an object) and the quality of the act (what makes it a judgment, rather than an act of doubt, surmise, etc.).²² As we know, the same object may be experienced differently in different acts: for instance, Napoleon may be thought of as the victor at Jena or as the vanquished at Waterloo. The matter of an act thus embodies the particular way in which the object is given in that act of consciousness. Moreover, the same matter can be shared by several acts which differ in quality: thus I can wonder, emptily, whether there is food in the larder; I can subsequently see that there is food; I can be happy that there is food, regret that there is food, and so on. Matter and quality stand in a relation of reciprocal dependence: each is such that, as a matter of necessity, it cannot exist without the other. The theory of dependence relations set forth in the third *Logical Investigation* hereby enables Husserl to give an account of the unity of the act which at the same time leaves room for distinct dimensions of variation within its internal structure and thus for the different ways in which it may be intentionally directed towards an object. Real content (including real matter and real quality) are entities existing in time. They are real parts of the conscious act. The ideal content, in contrast, is the *species* which this real content, with its real parts and moments, instantiates. Husserl's treatment of these matters thus comes close to familiar Aristotelian, immanent realist, theories of universals.²³

Both real and ideal content are to be distinguished further from the object which the act intends, so that an analogue of the distinction between the sense and the referent of an expression is present, with variations in detail and ontology, in Bolzano, in Twardowski, and

again in Husserl. Twardowski and Husserl, true to their Brentanian heritage, locate this distinction squarely in the field of psychology: hence sense or meaning and directedness to object pertain primarily to *acts* and only derivatively to *expressions or uses of language*.

V. LOGIC, MEANING, AND REFERENCE

The distinction between meaning and referent in language is, of course, standardly associated with Gottlob Frege and especially with Frege's essay "On Sense and Reference" of 1892. As Angelelli has shown in his work of 1967, however, the distinction has a long pre-history. As Mohanty shows in his *Husserl and Frege* of 1982, Husserl drew the distinction between sense and reference of a term already in 1891, which is to say before the publication of Frege's essay. For present purposes, however, we need only note that, while Frege drew the Bolzanian distinction between idea (*Vorstellung*) and sense (*Sinn*), the idea being subjective and the sense objective, he took ideas as psychological and sense, though "eternal," as somehow bound to language, so that only expressions have sense. In contrast to Bolzano for whom our thinking acts, too, may have objective content, he thus held that linguistic expression is the sole intramundane locus of objective content. Coupled with this is the fact that, because he saw acts of thinking as irreducibly subjective, Frege's attack on psychologism became an attack on all attempts to explain how logic can apply to our psychological experience of reasoning and inferring. In this respect Husserl enjoys a clear advantage. For Husserl drew the distinction between subjective and objective content for acts in general, and not exclusively for acts of linguistic expression. Moreover his account of subjective act-tokens is part and parcel of his account of objective content, so that Husserl was able to show in direct fashion how logical laws can apply to actual thinking events (namely in the way geometrical laws apply to empirical shapes).²⁴ Thus it was, in fact, Husserl who integrated the (psychological, or phenomenological) theory of intentional content with the logical theory of objective idea or proposition.

Husserl's account of language in the *Logical Investigations* and later is cognitively based. Linguistic expressions have meaning, on this account, only to the extent that they are *given* meaning through cognitive acts or through parts and moments of acts of certain determinate sorts. The latter are not separate, well-demarked units of

conscious experience but are bound up or fused together with the other acts and act-moments involved in uses of language in such a way as to make a single experiential unity.²⁵ Meaning acts are further such that they are in every case acts in which objects are intended: "To use an expression significantly, and to refer expressively to an object," Husserl claims, "are one and the same."²⁶

In the ontology of the *Logical Investigations*, meanings are species. To see what this means we must first note that meaning acts are divided by Husserl into two kinds: those associated with *uses of names*, which are acts of presentation, and those associated with *uses of sentences*, which are acts of judgment. The former are directed toward *objects*, the latter toward *states of affairs*. A meaning act of the first kind may occur either in isolation or (undergoing a certain sort of transformation) in the context of a meaning act of the second kind: "Each meaning is on this doctrine either a nominal meaning or a propositional meaning, or, still more precisely, either the meaning of a complete sentence or a possible part of such a meaning" (*Investigation VI*, §1). The meanings of general names, now, which Husserl calls concepts, are just *species of corresponding presentations* (or more precisely of the *matters of presentations*); the meanings of sentences, which Husserl calls propositions, are just *species of acts of judgment*. And the relation between a meaning and an associated *act of meaning* (between an ideal content and an associated real content) is in every case the relation of species to instance, exactly as between, say, the species *red* and some red object. More precisely, we should say that, just as it is only a certain real part or moment of the red object – its individual accident of redness – which instantiates the species *red*, so it is only a certain real part or moment of the meaning act which instances any given meaning-species, namely that part or moment which is responsible for the act's intentionality, for its being directed to an object in just this way.

In the concrete act of meaning a certain moment corresponds to the meaning and makes up the essential character of this act, i.e. necessarily belongs to each concrete act in which this same meaning is "realised."

(*Investigation IV*, §7)

The meaning is this moment of directedness considered *in specie*.²⁷ The identity of meaning from act to act and from subject to subject is the *identity of the species*. Husserl is thus able to do justice to the

communicability of meaning through his theory of ideal contents as species of acts. If Erna understands what Hans says, then while Hans's and Erna's thoughts are numerically distinct internally complex events, they are such that, in virtue of the similarity of their matters (and therefore also of their objects), they are instances of one and the same species. When two interlocutors successfully communicate we can describe what this success consists in by appealing to this identity of species, that is, to the existence of a certain constancy or regularity in the space of mental acts of the relevant community of language-using subjects. We can talk of "the same" meaning from speaker to speaker and from occasion to occasion in virtue of the fact that numerically different individual moments of meaning in the relevant acts serve to instantiate identical species. Indeed, to assert that two individual objects or events instantiate one and the same species is simply to assert that the objects or events in question manifest among themselves a certain qualitative identity of real parts or moments – that they are, *in this or that respect*, the same.

It is important to stress that meanings as thus conceived by Husserl are not the *objects* of normal acts of language use. Meanings can however become the objects of special types of reflective act, and it is acts of this sort which form the basis (*inter alia*) of the science of logic. Logic arises when we treat those species which are meanings as special sorts of *proxy objects* (as "ideal singulars"), and investigate the properties of these objects in much the same way that the mathematician investigates the properties of numbers or geometrical figures.

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VI. ACT, CONTENT, OBJECT

It is our contention that it was Husserl who first clearly developed an adequate conception of intentional content and of its psychological role in the intentional relation between act (or subject) and object of consciousness as well as of its role in linguistic reference. Only late in this century, in part as a result of developments in the newly burgeoning field of cognitive science, did philosophy of mind in the analytic tradition focus directly on intentionality as a feature of conscious acts, and only recently has it begun to draw the fundamental Husserlian distinctions among acts of consciousness, their inten-

tional content, the objects represented or "intended" in these acts, and the states (of belief, desire, etc.) which underlie them.²⁸

Acts of consciousness include experiences of perception, judgment, phantasy, desire, emotion, volition, etc. The term "act" in Husserl's technical sense means not a bodily action but a mental occurrence, not a state or disposition (or "attitude" in familiar analytic parlance) but an actual episode of perceiving, thinking, desiring or what have you. It should not be supposed however that conscious experience divides neatly into unitary act-shaped lumps; rather, the stream of consciousness is so rich and complicated that it can be parsed into acts, their parts and moments, in a variety of different ways. Phenomenology is in no small part the science of such parsings, which are already illustrated in the simple case of an act of judging of the form *S is P*. This can be parsed into constituent acts of presentation (*of S*) and predication (*that such-and-such is P*); alternatively it can be parsed into matter (*S is P*) and quality (*of judging that such and such is the case*), and so on.

The *object* of an act is whatever one is conscious of in that act. When I see that tree, the object of my visual experience is the tree; when I judge that the tide is high, the object of my judging experience is the state of affairs of the tide's being high (at a certain place and time). Clearly, objects, too, may be rich and complicated, and the object of a single act may be parsed into constituent objects in a variety of different ways on different levels. Note, too, that the object always transcends the content of any given act, in that there are always further aspects of the object which are not in any way represented within it.

Every act has a content. An act of hallucination, however, is such that there does not exist an object corresponding to the content, even though it is from the subject's point of view *as if* it has an object. Husserl occasionally talked as if, with Meinong and Twardowski, he allowed non-existent objects, so that intentionality would be a properly relational affair even in hallucination and like cases (the object of Macbeth's vision would be a non-existent dagger). In his more careful moments, however, Husserl talked as if in hallucination there is no object, and in that case intentionality would be an adverbial affair in the sense of our earlier terminology (it would pertain exclusively to special features of act and content), even if one that is otherwise in many ways like the standard case.

From the time of the second edition of the *Logical Investigations* (1913) Husserl's theory also includes as an extra element the subject or ego ("I") of an act, i.e., the individual who performs or experiences the act. Thus, on Husserl's modified theory, the intentionality of an act of consciousness consists in an intentional nexus whose terms are ego, act, content, and (in veridical cases) object. Specifically, the ego or act "intends" the object prescribed by the act's content. More precisely, the ego experiences or lives through the act, the act has a certain content, the content directs us to a certain object (if such exists), and the object of the act is that towards which we are directed in the act.

VII. THEORIES OF THE NOEMA

This basic Husserlian view, with these fundamentals, was laid out in the *Logical Investigations*, and on the above points commentators widely agree. There is divergence, however, on how to interpret the notion of content which Husserl introduced in lectures on the theory of meaning in 1908²⁹ and developed in *Ideas I* (1913). Husserl here revised his theory of intentional content, renaming the content of an intentional act its *noema*, bringing the terminology back to a Greek usage occasionally employed by Aristotle.

As we saw, Husserl distinguished in the *Investigations* between "real" and "ideal" content: the real content of an act is a temporal part or moment of the act, and the ideal content is the corresponding species. (Analytic philosophers today, following Quine, would say that species are "abstract" entities, but Husserl used "abstract," in accordance with an older usage, for what cannot exist in separation except in the weak sense that it can be *abstracted* in thought, viz., a *moment*, which Husserl defined as a dependent or "abstract" part of the object, a part which is of such a nature that it cannot exist apart from the relevant whole.³⁰) For the real content of an act Husserl introduced in *Ideas I* the term *noesis* or *noetic moment*. The noesis is then correlated with what is now called the intentional content or *noema* of the act, and intentionality is seen as consisting in this "noetic-noematic correlation."

Husserl called the act's noema a meaning or *sense* (*Sinn*) and characterized it as "the object as intended" as opposed to the object *simpliciter*. The noema too is an ideal entity, but distinct from a

species (indeed Husserl recognizes also species of noemata and noeses at lower and higher levels of generality: see *Ideas* I, §128).

Different models of intentionality have emerged in light of differing interpretations and reconstructions of Husserl's theory of the noema of an act. These include (1) the neo-phenomenalist model, developed by Aron Gurwitsch and others in Germany and later in New York at the New School for Social Research; (2) the intentional object model, developed by the Polish philosopher Roman Ingarden; (3) the content-as-sense model, developed by the California school of Dagfinn Føllesdal, Hubert Dreyfus, Ronald McIntyre, Izchak Miller, and David Smith; and (4) the aspect model, developed by Robert Sokolowski, John Drummond, and others on the East Coast of the United States. Finally we might mention (5) the Aristotelian model (referred to already above), which is defended by those, such as Kevin Mulligan, Barry Smith, and Dallas Willard, who have remained loyal to the original account of intentionality that is presented in the first edition of the *Logical Investigations*.

Gurwitsch's neo-phenomenalist model assimilates object to content of consciousness. For Gurwitsch (1967), the noema or intentional content of an act of perception is a perceptual *appearance* of the object perceived, and the object itself is a complex of such appearances, the ideal limit-totality of all possible appearances of the same object. (For other kinds of experience, noemata are non-sensory, "conceptual" appearances.) The object, on this view, is a complex of noemata, and so an act's noema is a *part* of its object. The view thus bears some similarity to Berkeley's idealism (with Gestalt-theoretical admixtures), but it differs importantly in that objects are bundles of noemata (the descendants of Husserl's *ideal* contents), not bundles of sensations, sense data, or other kinds of mental events or event-constituents. The relation of act to noema is one of correlation: to every difference on the side of the real object-directed components of the act there corresponds a difference in the ("ideal") noema. (See *Ideas* I, §128.) The relation of noema to object, on the other hand, is one of part to whole; the intentional relation of act to object is then the composition of these two relations.

The aspect model of Sokolowski, Drummond, and others starts out from a realist view according to which the object of the act is what it is independently of our cognitive relations to it. This object is in any given act however always intended *as* such-and-such. In

Husserl's example, I think of Napoleon as the vanquished at Waterloo rather than as the victor at Jena. Since the same object can be intended in different ways, the object is an "identity" in a "manifold" of ways in which it can be intended. The noema of the act, on this view, is the *object as intended* in the act, and this is something distinguished from the object itself. This much concurs with Gurwitsch. However, on the aspect model, the object-as-intended is seen as an abstract of the real transcendent object, it is the object abstractly considered, something that is capable of being isolated only in a special "phenomenological" or "transcendental" attitude. We might then exploit Husserl's ontology of part, whole, and dependence in order to generate a realist interpretation of the *aspect* theory according to which the noema would prove to be a dependent part of the real transcendent object (for example a visible surface). The intentional relation would then hold between the act and a certain real transcendent moment of the object.³¹

The sense-content model of the California school does not assimilate noema to object or object to noema.³² Rather, an act's noema is seen as a type of meaning or sense, distinct in kind both from the act and its parts and moments and from the object and its parts and moments. A noema is an abstract (which is to say "ideal") entity, like a concept or a Bolzanian proposition in itself. Thus, it can be shared as the common content of different acts on the part of different subjects. A noema is formed from a sense or content together with a certain "thetic" character (earlier called "act quality") such as that of imagining, perceiving, judging, etc. The role of an act's noema is then to prescribe which object can satisfy the given act in something like the sense of satisfaction that is familiar from logical semantics.³³

Every act has a noema and is thus intentional. In cases like hallucination, according to the Californian model, the act has a noema but there is no object that satisfies the noema, so the act has no object. In standard cases of veridical experience, however, where the act's noema is satisfied by a single object, then this is the object of the act. Thus, when I see a tree, the object of my act is a certain material object. This same object can be intended in many different ways, through different noemata. But the object itself is categorially distinct from the noemata through which it is intended. The intentional relation between act and object is mediated by a noema. The

relation between act and noema is again one of correlation, while the relation between a noema and its object is the semantic relation of a sense prescribing or being satisfied by an object, and the relation of act to object is the composition of these two relations. This model assumes a form of realism, since material objects are independent of mind: they are not composed of either mental acts or their contents. This is combined, however, with a Platonism in regard to meanings in the manner of Frege or Bolzano. It was Føllesdal's idea to describe intentionality on the noemata theory by stressing the analogy with linguistic reference, especially as this was conceived in Frege's model, where reference is effected *via* sense as this is standardly understood by analytic philosophers. Thus, the sense of an expression such as "the President of the United States" determines a referent, viz., whoever happens to serve currently in the mentioned office. An act of consciousness intends whatever is determined by its sense, much as a linguistic expression refers to what its sense determines on the Fregean model. This so-called Fregean model of intentionality has misled some into thinking that linguistic reference is supposed on the given account to be more fundamental than intentional reference. Philosophers such as the later Wittgenstein, Sellars, and Dummett have indeed argued that language is more fundamental in this sense.³⁴ As we saw, however, Husserl had worked out already in his *Logical Investigations* an account of linguistic reference as founded on intentional acts of consciousness and the account of linguistic reference there spelled out remains valid, in essence, within the new framework of the *Ideas*. As more recently for Chisholm (1984) and Searle (1983), so also for Husserl in all the phases of his thinking, the philosophy of language is subsumed under the philosophy of mind and intentionality. Husserl saw correctly that speech acts and related phenomena borrow their referential power from the intentionality of underlying acts of thought.

The meaning-content model of intentionality is extended by the Husserlian notion of an act's "horizon."³⁵ Associated with each act of consciousness is a *horizon* of possible further experiences of the same object. The noemata of these further acts are compatible in sense-content with the noema of the given act. These horizon noemata prescribe further properties or "determinations" of the object, say that it has four legs, is made of wood, etc., in addition to those delineated in the act with which one starts. An act's horizon thus maps out

an array of possible states of affairs that fill in what is left "open" or "indeterminate" by the noema of the act itself. In this way Husserlian horizon-analysis can be seen as anticipating the analysis of meaning in terms of possible world semantics developed by Saul Kripke, Jaakko Hintikka, and others in the 1950s and 1960s and inspired in part by Rudolf Carnap's method of state descriptions.³⁶

As should by now be clear, the theory of intentionality must account for the existence and structure of non-veridical acts, or, in other words, for the fact that we can, for example, imagine things that do not exist or radically misconceive things which do exist. The features of such acts can be accounted for either by assuming intentional contents distinct from the objects they present (there is content but no object of imagination – the subject is merely deluded into thinking that there is such an object), or by assuming appropriate "intentional objects" *sui generis*. Husserl sometimes spoke interchangeably of intentional objects and intentional contents. However, the Polish phenomenologist Roman Ingarden, a student of Husserl and defender of what he saw as the latter's early realism, developed an ontology of intentionality that embraces both these notions while clearly distinguishing them from each other and from the real transcendent object in the world.³⁷ Real objects, from Ingarden's point of view, exist "autonomously," which is to say independently of mind. But there are also objects which exist "purely intentionally," which is to say in such a way that their existence is dependent upon acts of consciousness. An object represented in a work of art, for instance, exists only in virtue of certain acts of imagination. An act of veridical perception, in contrast, has an object that is an intentional object only *per accidens* since it enjoys an autonomous existence in its own right.

The Aristotelian theory of intentionality, finally, would rest content with the *Logical Investigations* notion of content as act-species. On this theory, mental acts are seen as internally complex events occurring in time, whose parts and moments instantiate species (in the sense of our discussion above). This holds in particular of those acts in which expressions acquire meanings, which are in Husserl's eyes those acts which do the job of supplying *objects* for the expressions in question. These objects are things, events, processes, etc., in the case of nominal expressions, states of affairs in the case of judgments.

On the species theory, as we saw, if Erna understands what Hans says, then this is because Hans's and Erna's thoughts are instances of the same species (at some level of generality), a fact which is itself to be understood in terms of certain kinds of constancy (similarity of parts) in the space of mental acts. On the noema theory as this is conceived on the mediating sense model, in contrast, we are dealing not with constancy amidst real variation, but with abstract meaning-entities outside space and time. Hans succeeds in communicating with Erna, on this account, because the meaning of his utterance, a certain abstract entity becomes the meaning of Erna's act of registering this utterance. It is as if the noemata are stars in an abstract heaven through which our successive acts, and even the successive acts of distinct subjects, may be identically directed. Proponents of the Aristotelian theory are thus able to give an account of the relation between act and meaning that is simpler and more realistic than that offered by proponents of competing theories. The latter, however, can argue that the simpler ontology of the Aristotelian theory is not up to the task of accounting for intentionality in all its richness and divergation.

VIII. ONTOLOGY

Husserl's accounts of intentionality in the *Logical Investigations* and *Ideas* say a great deal about the structure of intentional relations – among ego, act, content, and object – and about the entities so related. As we saw, the intentional relation can be of variable number of terms: in veridical perception, for instance, the intentional relation connects ego, act, and content to object, but in hallucination the intentional relation connects ego, act, and content, but there is no object. As we also saw, Husserl's early phenomenology was allied with a detailed ontology, including especially an ontology of part, whole, and dependence. An act of consciousness, for instance, is not a simple entity: it is a whole with structural parts, and it and its parts may stand in dependence relations to other acts and their parts. We now turn to Husserl's contributions to ontology itself, which has been reconstructed, using formal techniques of the sort employed by analytic philosophy, by Kit Fine, Jean Petitot, Peter Simons, Barry Smith, and others.³⁸

Husserl's works include lengthy treatments of universals, catego-

ries, meanings, numbers, manifolds, etc. from an ontological perspective. Here, however, we shall concentrate almost exclusively on the *Logical Investigations*, which contain in a clear form the ontological ideas which provided the terminological and theoretical basis both for much of the detailed phenomenological description and for many of the metaphysical theses presented in Husserl's later works.

The ontology of the *Logical Investigations* is of interest first of all because of its clear conception of a *formal* discipline of ontology analogous to formal logic. (Here Husserl's thinking parallels Meinong's development of ontology as a general "theory of objects.") Formal disciplines are set apart from "regional" or "material" disciplines in that they apply to all domains of objects whatsoever, so that they are independent of the peculiarities of any given field of knowledge.

Logic, as Husserl sees it, is concerned in the first place with meanings (propositions, concepts) and with associated meaning-instantiating acts. Most importantly, it is concerned with that sort of deductively closed collection of *meanings* which constitutes a scientific theory. For Husserl, as for Bolzano, logic is a theory of science. Only where we have an appropriate unity and organisation also on the side of the *objects* (states of affairs, properties) to which the relevant acts refer, however, will we have a scientific theory, so that the unity which is characteristic of the latter must involve both (1) an *interconnection of truths* (or of propositional meanings in general), and (2) an *interconnection of the things* to which these truths (and the associated cognitive acts) are directed.

Where formal logic relates in the first place to meaning categories such as *proposition, concept, subject* and *predicate*, its sister discipline of formal ontology relates to object categories such as *object* and *property, relation* and *relatum, manifold, part, whole, state of affairs, existence* and so on. Logic in a broader sense therefore seeks to delimit the concepts which belong to the idea of a unity of theory in relation to both meanings and objects, and the truths of logic are all the necessary truths relating to those categories of constituents, on the side of both meanings and objects, from out of which science as such is necessarily constituted (including what we might think of as bridge-categories such as *identity* and *truth* which span the division between meanings and objects).

Husserl's conception of the science of logic is not an arbitrary one.

For formal-ontological concepts are like the concepts of formal logic in forming complex structures in non-arbitrary, law-governed ("recursive") ways. And because they are independent of any peculiar material of knowledge, we are able to grasp the properties of the given structures in such a way as to establish *in one go* the properties of all formally similar structures.

As Husserl himself points out, certain branches of mathematics are partial realizations of the idea of a formal ontology in this sense. The mathematical theory of manifolds as set forth by Riemann and developed by Grassmann, Hamilton, Lie, and Cantor, was to be a science of the essential types of possible object-domains of scientific theories, so that all actual object-domains would be specializations or singularizations of certain manifold-forms. And then:

If the relevant formal theory has actually been worked out in the theory of manifolds, then all deductive theoretical work in the building up of all actual theories of the same form has been done. (Prolegomena, §70)

That is to say, once we have worked out the laws governing mathematical manifolds of a certain sort, our results can be applied – by a process of "specialization" – to every individual manifold sharing this same form.

In addition to formal ontology, then, we have also specialized material or regional ontologies which apply to objects of different special kinds. There are material concepts of a dog, of an electron, of a colour (or of this dog, of dogs in general, of electrons in general), and so on. These concepts serve as basis for the reverse process of formalization, whereby we move to the purely formal level of: *a something, this something, something in general*, and so on, by allowing materially determinate concepts to become mere place-holders for any concepts whatsoever.

The twinned operations of formalization and specialization reflect two distinct sorts of organization on the side of reality itself: material organization, on the one hand, which is studied by the special sciences, and formal organizations, on the other, which is what all objects and object-regions have in common and which is studied by formal ontology. Formal organization involves, above all, relations of part to whole and of dependence. It was Husserl who was the first to recognize that the given notions are capable of being applied, in

principle, to all varieties of objects, that the proper place for the distinction between dependence and independence is in a "pure (*a priori*) theory of objects as such" "in the framework of *a priori* formal ontology."³⁹

The notion of dependence can be set forth, very roughly, in terms of the following definition:

a is dependent on *b* =: *a* is as a matter of necessity such that it cannot exist unless *b* exists.

It is not however individuals as such that are dependent or independent, but individuals *qua* instances of certain species. The notions of dependence and independence can therefore be carried over to the species themselves "which can, in a corresponding and somewhat altered sense, be spoken of as 'independent' and 'dependent' " (*Investigation* III, §7a).

On the basis of this simple notion of dependence a whole family of other, associated notions can be defined. Thus, we can distinguish between one-sided and reciprocal dependence, between mediate and immediate dependence, and between the case where an individual is linked by dependence to one and to a multiplicity of founding objects in a range of different ways. The resulting theory has a number of interesting mathematical properties, and it can be compared with an extension of standard whole-part theory obtained by adding notions of connectedness derived from topology. The formal ideas on which it rests have been applied with some success not only in psychology but also in linguistics. Perhaps the most interesting employment of the theory however – if only in view of the almost total neglect of this fact by Husserl's commentators – was by Husserl himself within the discipline of phenomenology. The detailed descriptions of the structures of acts which are provided by Husserl are remarkably often phrased in the terminology of the theory of dependence or foundation, and something similar applies, as we shall see, to Husserl's ideas in epistemology.

We note, first of all, that the theory of dependence, because it relates primarily to species or to individuals *qua* instances of species, is a matter of ideal and therefore necessary laws:

It is not a peculiarity of certain sorts of parts that they should only be parts in general, while it would remain quite indifferent what conglomerates with

them, and into what sorts of contexts they are fitted. Rather there obtain firmly determined relations of necessity, *contentually* determinate laws which vary with the species of dependent contents and accordingly prescribe one sort of completion to one of them another sort of completion to another.

(*Investigation III, §10*)

It is in terms of the theory of dependence that the idea of unity is to be clarified. Every instance of unity – the unity of a sentence, of a thought, of a pattern, even of a material object or of a person – is based, Husserl tells us, on a necessary law asserting, on the level of species, certain relations of dependence and compatibility between the unified parts. Compatibility, too, a sister notion of dependency, pertains not to individuals as such but always to instances of species. Thus the fact that individual instances of redness and roundness may be unified together in a single whole implies that there is a complex species, a form of combination, which can be seen to be capable of being re-instantiated also in other wholes. This complex species is the foundation of the relevant compatibility, which obtains whether empirical union ever occurs or not; or rather, to say that compatibility obtains, is just to say that the corresponding complex species exists. Redness and roundness are compatible in a way that redness and greenness are not. This is why nothing (as one says) can be red and green all over, and Husserl's ontological theory of *a priori* necessity has its origin at this point.

Dependence is at work also in Husserl's account of the structures of acts. Thus act-quality and act-matter (thetic character and noematic sense) are two mutually dependent moments of the act: it is a matter of necessity that each cannot exist without the other. Just as the act-matter is unthinkable without some quality, so each act-quality is unthinkable "as cut free from all matter." "Or should we perhaps hold as possible an experience which would be judgment-quality but not judgment of a determinate matter? The judgment would thereby after all lose the character of an intentional experience, which has been evidently ascribed as essential to it."⁴⁰

IX. EPISTEMOLOGY

Husserl's concern with the theory of knowledge is evident at every stage in his career. In the Prolegomena to the *Logical Investigations*,

he defended the objectivity of knowledge in logic and mathematics, and by implication in other domains as well, against the prevailing, subjectivizing program of psychologism. Husserl argued that objective norms of reason are necessary for genuine knowledge – objective norms which science as such, including the science of psychology, must presuppose. Moreover he argued that such norms themselves presuppose certain theoretical truths about knowledge, reason, validity, consistency, and so on, for

[e]very normative proposition of, e.g., the form "An A should be B" implies the theoretical proposition "Only an A which is B has the properties C," in which "C" serves to indicate the constitutive content of the standard-setting predicate "good" (e.g., pleasure, knowledge, whatever, in short, is distinguished as good by the valuation fundamental to our given sphere).
(Prolegomena, §16)

In the three books of the *Ideas*, Husserl argued that to every domain of objects there is correlated a form of "intuition" (*Anschauung*) through which we come to know the given objects in the most adequate achievable way. Objects in nature are known through perception, acts of consciousness are known through phenomenological reflection, values are known through emotions, other people's experiences are known through empathy,⁴¹ ideal species or essences are known through "eidetic variation," and so on. Knowledge about objects in each of the given domains proceeds, Husserl argues, by comparing corresponding intuitive observations and framing more theoretical judgments about what is known, and in principle going back and revising the initial observations. This is quite a natural account of human knowledge, weaving together strands of both empiricism (knowledge begins with observation) and rationalism (knowledge is guided by reason) in a quasi-Kantian synthesis (knowledge centrally involves putting objects under ideal species via conceptual structures of certain sorts).

Husserl's model of knowledge formation is essentially the same as that recounted later, with an eye to science, by Quine.⁴² What is unusual in Husserl's scheme, however, is his doctrine of the different varieties of intuition corresponding to the different regions of objects. Most philosophers in the late twentieth century dismiss the idea that there might be faculties of "intuition" beyond the familiar and fallible modes of sensory perception. When the details of

Husserl's account of intuition emerge, however, these kinds of intuition appear less suspicious than they may at first have seemed. For these are in Husserl's eyes merely components of everyday experience. The philosopher's mistake, from Plato on, has been to claim greater evidence from them, and a more exalted status than experience warrants. Husserl's phenomenology of the kinds of evidence already available in everyday experience is thus the cornerstone of his theory of knowledge.

Recent philosophers have sought to amend the Platonic definition of knowledge as justified true belief. Some modify this definition by adding conditions of causal genesis, defeasibility, or even relativity to a scientific paradigm; others seek norms of justification in the fluctuating methods of the community or group; and neo-pragmatists reduce truth to a mere methodological ideal. Quine's model – dubbed the web of belief – puts off the ultimate questions of truth and justification, conceiving our system of knowledge-claims instead as a system of beliefs that posit various entities, organize observations about them, form hypotheses and theories about them, draw inferences from observations by more or less well defined canons of inference (logic), assess observations and hypotheses (in regard to consistency, simplicity, etc.), and thereby form judgments or beliefs (dispositions to assent or to judge), all of which are indefinitely revisable in light of further evidence and further theorizing. Husserl's theory of knowledge is like this.

The theory is discernible from the *Logical Investigations* to *Ideas I* to the posthumous *Experience and Judgment*. The sixth of the *Logical Investigations* contains an elaborate account of the ways in which intuitively empty ("signitive") intentions may be to greater or lesser degree "fulfilled" in different sorts of intuitive experience. Since total fulfillment, or complete evidence, is unattainable for the objects given in perception, perceptual experience is always in this sense partial and revisable.

In the closing chapters of *Ideas I*, Husserl pursues the phenomenology of "theoretical reason": reason begins with "seeing" acts (§136), allows for different kinds of self-evidence (§137), and forms the ideal of a perfectly adequate consciousness of any object (§142). But at the same time Husserl stresses that this perfect adequacy is unattainable for objects in the natural world (§143). In *Experience and Judgment* he holds that a "predicative" act of judging that this is an apple

tree rests on a "pre-predicative" experience of seeing the tree: the judgment not only gets its evidence from the perceptual experience, but depends *ontologically* on it, as the judging act rides piggyback on the perceptual act.

It is in the *Cartesian Meditations*, however, that Husserl presents his most focussed account of the central properties of "evidence." Evidence is defined as "an 'experiencing' . . . of something itself" (§5), that is, an intuitive or (self-) evident form of experience. This is what he often calls "intuition" throughout his writings, what in *Ideas I* (§§1, 138) he characterized as "originally giving" experience. (It is also what Bertrand Russell called "acquaintance.") In the *Meditations* (§6) Husserl distinguishes three grades of evidence. An evident experience is "certain" if, in having the experience, one does not doubt the existence of the object or state of affairs posited in the experience. This kind of certainty is found in every intuitive experience; in everyday perception, for instance, one normally posits the existence of what one sees, in a way that doubt simply does not arise (though it could arise in special circumstances). An "apodictic" evidence, however, would be a case of *perfect* evidence in which the object or state of affairs presented is given with "absolute indubitability" – its nonbeing is "absolutely unimaginable." Perhaps, as Descartes held, one's own consciousness is experienced with this kind of apodicticity. An "adequate" evidence, by contrast, is an ideal of *complete* evidence in which there are no "unfulfilled" components of meaning or intending. Sensory perception, again, is inadequate in this sense, since the table one sees is given with a back side whose color is not given in fulfilled manner in sensation – one does not "see" the color of the back side even though the content of perception requires the table to have a back side.

Husserl thus recognizes various kinds of intuition: sensory perception, phenomenological reflection, empathy, and eidetic intuition. But what grades of evidence do they each have? The answers are not simple, and Husserl changed his views in the course of time.⁴³ Perception is normally certain but never apodictic and never adequate. Eidetic intuition of essences is neither adequate nor apodictic, except for the very simplest sorts of cases, as found for example in geometry. In *Ideas I* (§153) Husserl allows that the essence of a material thing (a plant or animal) always leaves open possibilities for further exploration, so the corresponding intuitions and judgments

are inadequate and thus nonapodictic. Phenomenological reflection – introspection, if you will – is certain and, Husserl seems to think in *Cartesian Meditations*, both apodictic (one cannot imagine the nonbeing of one's current experience) and adequate (there are no "hidden sides" of one's experience). However, the earlier *Ideas II* and the posthumous *Crisis* complicate his account of phenomenological reflection *vis-à-vis* our lifeworld experience of our own acts of consciousness, since our experiences may be viewed as "pure" acts-of-consciousness (intentional experiences), as part of the "natural" world (brain events), or as part of the "human" world (cultural practices).⁴⁴ Empathy with another's experience may be rather uncertain (she looks sad, but perhaps . . .); and surely it is neither apodictic nor adequate. However, our evidence concerning the intersubjective, social world – from others' experiences to collective actions – is made stronger by the ways in which our other-related experiences coalesce so as to present a coherent public world.

While Husserl analyzed grades of evidence in our knowledge of the world around us and of our own consciousness, his program was nothing like that of Descartes. Even his *Cartesian Meditations* did not seek foundations of knowledge in the absolute certainty of the cogito. For one thing, his practice of phenomenology showed that whatever apodicticity might seem to be present in reflection on experience, all phenomenological analyses of structures of experience are in principle revisable. Furthermore, as his own *Meditations* progress, there is nothing like Descartes' process of building up one's knowledge of first one's own ego, then God and then nature, and finally other egos, via a process of reasoning that would be immune from all possible doubt even under the hypothesis of an evil demon in control of one's mind. By the time we reach the last of Husserl's *Meditations*, on how we experience other egos, it has become clear that there are different grades of evidence in different kinds of knowledge. Moreover, the guiding theme of the *Cartesian Meditations* is not the quest for absolute certainty, but the working out of a phenomenology of one's experience of one's self or ego (which has many aspects: transcendental, bodily, psychological, human), of the natural world around one, and of other human beings and their egos. The driving issue is how we experience these things, and evidence in its different modes is one element in these different forms of consciousness. Intuitions, for Husserl, are revisable: it is not they which might serve as

the indubitable bedrock of a foundationalist edifice. A perception in which a material thing is given intuitively with certain properties is neither adequate nor apodictic and can later be "cancelled" on the basis of further perceptions. Revisability is a characteristic feature, too, of Husserl's notion of horizon, which is built centrally around the idea that a thing can be given in further perceptions which may or may not agree with the initial perception.⁴⁵

Husserl's ontology of dependence relations complicates the question of foundationalism even further. Husserl's notion of dependence or foundation is an ontological, not an epistemological notion: as we saw, one thing is founded or dependent on another if the former cannot – as a matter of necessity – exist unless the latter exists. Husserl uses the notion of founding in phenomenological analyses and thus, where evidence is concerned, in epistemological analyses. In *Experience and Judgment* he distinguishes "predicative" acts of judging that *S is P* from "pre-predicative" acts of perceiving *S as P*. The predicative judgment is ontologically founded on the pre-predicative perception. It also draws its evidence, presumably, from the perception on which it is so founded, but this epistemic dependence is different from the relation of ontological foundation. Still, epistemological foundationalism and the theory of ontological foundation interact in Husserl's account, in the sixth of the *Logical Investigations*, of the way higher-level acts of eidetic intuition are founded on the lower-level acts in which, for example, sense-data are experienced.⁴⁶

Finally, we should note that Husserl's theory of knowledge also ties into his metaphysics, from his early realism to his later transcendental idealism. If there is a world independent of consciousness, then knowledge of it is a matter of "truth-making" relations between what is known and our judgments thereof. But if the world is dependent on consciousness, as one version of transcendental idealism has it, then knowledge ultimately consists in just the evidential relations of corroboration among intuitive experience and higher levels of judgment. Indeed, these patterns of corroboration, characteristic of Husserl's analysis of the notion of horizon, obtain whether realism or idealism prevails. The former aspect of Husserl's philosophy has been emphasized by phenomenological realists such as Adolf Reinach, Roman Ingarden, Dagfinn Føllesdal, Dallas Willard, and the authors of this "Introduction." It is the latter aspect which

has been stressed in the work of French phenomenologists such as Sartre, Merleau-Ponty, and Ricoeur, and in the United States, above all in the work of Aron Gurwitsch and his followers.

As one sees, the literature on Husserl, and on these competing extrapolations of his views, has reached a point of near unsurvability. It is hoped that the essays here collected will provide the English-language reader with a first preliminary guide to further exploration.

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NOTES

- 1 See, for example, R. Rorty 1979 and Dreyfus 1991.
- 2 See, for example, Føllesdal 1979.
- 3 See, on these topics, Willard 1984 and Barry Smith 1987 and 1989.
- 4 On the rootedness of Husserl's thinking in the classical concerns of German philosophy see Schuhmann 1990. Note that this Fichtean, metaphysical foundationalist dimension of Husserl's philosophy is absent from the thinking of Heidegger.
- 5 The account which follows is based primarily on Schuhmann 1977.
- 6 See Volume XXI, p. 220, of the Husserliana series of Husserl's works, full details of which are supplied in the bibliography at the end of this volume.
- 7 On the Munich school, see Schuhmann 1991.
- 8 See Mulligan, ed., 1987 and Barry Smith 1990.
- 9 See Spiegelberg 1967.
- 10 Of the five initial editors of this *Jahrbuch*, four – Alexander Pfänder, Moritz Geiger, Max Scheler, and Adolf Reinach – which is to say all except Husserl himself, hailed from Munich.

- 11 On Husserl's philosophy of politics and its relation to that of Hobbes, see Schuhmann 1988.
- 12 On this history, see Niels W. Bokhove, *Phänomenologie. Ursprung und Entwicklung des Terminus um 18. Jahrhundert* (Utrecht: Publications of the Department of Philosophy, Utrecht University, 1991).
- 13 See Carnap 1967, 101f. and Fodor 1980.
- 14 See Holenstein 1988 and Münch 1990.
- 15 See *Ideas I*, §§27ff.
- 16 David Smith and Ronald McIntyre 1982 distinguish "object" and "content" approaches. Here we employ a slightly broader terminology.
- 17 See pp. 88f. of the English translation. For a detailed discussion of this passage see Barry Smith 1994, especially Chapter 2.
- 18 See, e.g., *Logical Investigations IV*, §14 and VI, §§30–35 and the discussion of *Logical Investigations V*, §11 in the essay by Mulligan in this volume.
- 19 Since language can be used to express thoughts, there is a related problem in the theory of linguistic reference. See, e.g., *Logical Investigations I*, §15.
- 20 Compare Sorabji 1991, who stresses the revisions of the concept of intentionality introduced by interpreters of Aristotle from the ancient philosophers, neoplatonists, Arabic writers, and Medievals to Brentano. The variant interpretations assume the outlines of rather different theories of intentionality, stressing material process, mental process, mental content, intentional object, etc. Controversies about Aristotle's conception of intentionality may be followed in the Rorty and Nussbaum edition of Aristotle's *De Anima*.
- 21 See Benson Mates. 1953, *Stoic Logic*, Chapter II, which includes a detailed comparison of the original Stoic notions with Frege's ideas.
- 22 Husserl distinguishes also a third component called "sensory" or "intuitive" representational content, later called *hyletic data*. See §25 of the sixth *Logical Investigation*, and also *Ideas I*, §85.
- 23 Strictly speaking each Husserlian ideal content is a hierarchy of species at lower and higher levels of generality, from *infima species* at the bottom to highest genus (or "category") at the top. On this, Aristotelian aspect of Husserl's theory, whose presence in the *Logical Investigations* is to some extent obscured through terminological changes in the second edition, see Barry Smith 1987.
- 24 See Willard 1984.
- 25 It was in the criticism of this aspect of Husserl's doctrine of meaning acts that his Munich followers were led to develop their theories of speech acts, which recognized that there are ways in which expressions

can acquire meaning other than through reference to an object. See, on this, §§3–4 of Barry Smith 1990.

- 26 *Logical Investigations* I, §15. The German reads: "einen Ausdruck mit Sinn gebrauchen und sich ausdrückend auf den Gegenstand beziehen (den Gegenstand vorstellen) ist einerlei."
- 27 Cf. *Investigation* III, Introduction. This is a simplified version of the doctrine not least in that it does not take account of the fact that an act of meaning involves both a token matter and a token quality (it is either a judgment, an expression of doubt, a surmise, and so on).
- 28 In the 1950s, Wilfrid Sellars and Roderick Chisholm drew attention to intentional mental states, Chisholm proposing linguistic or logical criteria of the intentional (1967). In the 1960s Jaakko Hintikka developed the logic of intentional states as a branch of modal logic using tools derived from the semantics of possible worlds: see Hintikka 1962 and 1969. Also in the 1960s Dagfinn Føllesdal proposed a reading of Husserl's theory of intentionality in terms suggested by Frege's theory of the way in which reference is effected via sense or meaning: see his "Husserl's Notion of Noema" and related essays in Dreyfus, ed., 1982. Finally, John Searle argued a broadly Husserlian view of consciousness in his 1983 and 1992.
- 29 See *Husserliana*, Volume XXVI.
- 30 See *Investigation* VI, §17.
- 31 In his 1990 work, Drummond sets out a clear account of the opposition between the Gurwitsch and Fregean/Californian models of the noema and the Sokolowski-Drummond model. Drummond does not, however, use Husserl's theory of dependence relations in formulating his account of the aspect-model.
- 32 See again the collection edited by Dreyfus, 1982, which includes Dagfinn Føllesdal's seminal essay of 1969, David Smith and Ronald McIntyre 1982, and Izchak Miller 1984. For criticisms see Drummond 1990 and Bell 1990.
- 33 A general concept such as *horse* is satisfied by many objects, where an individual concept such as *Duns Scotus* is satisfied by at most one; a perceptual content such as *that horse* (*visually presented to me now*) is satisfied by at most one object. See David Smith 1989 for a detailed discussion of this issue.
- 34 See, for example, Chapters 2 and 13 of Dummett 1993: language is an intrinsically social phenomenon from the Wittgensteinian perspective embraced by Dummett.
- 35 See the discussion of this notion in Chapters Vff. of David Smith and Ronald McIntyre 1982.

- 36 In the possible-worlds variants of Fregean semantics prominent in the 1960s, the sense of an expression is identified as a function that assigns to any possible world what would be the referent of the expression in that world; Husserl would not have accepted this identification, but it has proved an instructive parallel. See Hintikka 1962, 1969, and 1975, and David Smith and Ronald McIntyre 1982.
- 37 Ingarden's renown rests primarily on his work in aesthetics and on the problems arising in virtue of the types of non-standard intentionality that predominate in the field of art. See Ingarden 1973, 1973a, and 1989. For Ingarden's wider ontology see the 1964 selection of extracts from Volume I of his *magnum opus*, *The Controversy over the Existence of the World*, originally published in Polish in 1947–48 and in an extended German version in 1964/65/73.
- 38 See Petitot 1994, the papers collected in Smith, ed., 1982, and Kit Fine's essay herein.
- 39 *Investigation III*, Introduction; *Investigation II*, §41.
- 40 *Investigation V*, §20. See Mulligan 1989 for more details of the internal structure of acts of judgment.
- 41 For a summary of the phenomenological account of empathy initiated by Husserl and developed in detail by his student Edith Stein in Stein 1917, see David Woodruff Smith 1989.
- 42 See Quine and Ullian 1991. Comparisons of Husserl's epistemology with Quine's are found in Føllesdal 1988 and in David Woodruff Smith 1994.
- 43 A study of Husserl's changing views of adequacy and apodicticity is found in Levin 1970.
- 44 See the essay "Mind and Body" by David Woodruff Smith herein.
- 45 Three differing views on issues of epistemological foundationalism in Husserl are developed in Føllesdal 1988, Cobb-Stevens 1990, and Drummond 1990.
- 46 See Barry Smith 1989.