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Edmund Husserl

Translated by J. N. Findlay from the Second German edition of *Logische Untersuchungen*

with a new Preface by Michael Dummett and edited with a new Introduction by Dermot Moran

Volume I

Prolegomena to pure logic (Volume I of the German editions)

Expression and meaning (Investigation I, Volume II of the German editions)

The ideal unity of the species and modern theories of abstraction (Investigation II, Volume II of the German editions)



London and New York

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Preface

Edmond Husserl's Logical Investigations, little known to English-speaking students of philosophy but well known to most students of the subject with a different mother tongue, is a work of the first importance in the history of philosophy. It was written at a turning point in Husserl's philosophical development, between his earlier book, Philosophy of Arithmetic (1891), deeply embedded in the psychologism so prevalent in German philosophy of the time, and the Ideas towards a pure Phenomenology and phenomenological *Philosophy* (1913) in which the notion of *noema* was first presented and the programme of phenomenology was first set out. In Philosophy of Arithmetic Husserl had criticised Gottlob Frege's Foundations of Arithmetic from a psychologistic standpoint. Psychologism attempts to explain concepts by reference to the inner mental operations supposedly involved in attaining them or grasping them; Frege had engaged in denouncing this methodology - the intrusion of psychological considerations into logic and the analysis of meaning - from the Foundations of Arithmetic onwards. Husserl, whose previous relations with Frege had been fairly cordial, was deeply affronted by his savage, and in certain respects unfair, review in 1894 of the Philosophy of Arithmetic, and had no further contact with him for the next twelve years. Frege's review was his most sustained attack on psychologism; and although it was resented by Husserl for its unkindness, it is widely believed to have influenced him profoundly, albeit some reject this conjecture. However this may be, Husserl had completely changed his attitude to psychologism by 1900. His arguments against it in the Prolegomena often coincided with those used by Frege, although he elaborated them in far more detail. Yet while Frege's objections to psychologism had made little impact, that of Husserl's assault on it was overwhelming: the Prolegomena came close to killing off the influence of psychologism within German philosophy, although Husserl's old teacher Brentano remained bewildered by this turn of events.

Attention to Husserl's famous book may help to correct the impression of 'German philosophy' often given by those who declare their enthusiasm for what they describe as the German tradition in the subject. This they see as originating in the work of Hegel and the idealist school generally and xviii Preface

descending to Heidegger. Heidegger indeed began as a pupil of Husserl's, though he diverged from him so markedly; but the false impression of what the German philosophical tradition has been may be corrected by reading Husserl's disparaging remarks about Hegel, and the accompanying encomium of Bolzano, in the Appendix to Chapter 10 of the *Prolegomena*.

Frege did not see himself as the founder of a school, although he was highly conscious of his divergence from the approaches of other philosophers contemporary with him. Yet nowadays he is recognised by all analytical philosophers as the grandfather of their school of philosophy – with Bolzano, whom Husserl so greatly admired, as its great-grandfather. Husserl, on the other hand, set out to be the inaugurator of a new philosophical method; and no one could deny him the title of founder of phenomenology. They were thus progenitors of two philosophical schools that have diverged so widely from one another that communication between them has until recently been almost impossible. Yet, at the time when Husserl's Logical Investigations were published, no one who knew the work of both men would have thought of them as belonging to radically different schools of philosophy; they had somewhat different interests, and a markedly different literary style, but they did not then appear any great distance apart in philosophical outlook. The moment of the publication of the Logical Investigations was that at which the views of the founders of the rival philosophical schools approximated most closely to one another.

They even had quite similar opinions about the nature of logic. Husserl denied that logic is an essentially normative discipline; he held that any normative discipline must rest on a theoretical science. Frege is often described as having held that logic *is* essentially normative in character, and he did indeed say as much in one of his unpublished writings. He did so because, when commenting on its description as embodying the 'laws of thought', he repeatedly observed that it did not lay down laws governing the way we do think, but promulgated laws concerning how we ought to think. In fact, however, his view was essentially the same as Husserl's. He frequently described logic as concerned with the laws of truth; and in the Introduction to his *Basic Laws of Arithmetic* he says that these are laws about what *is*, independently of our judgements.

Any analytical philosopher interested in how philosophy arrived at its present state thus needs to study the *Logical Investigations* to discover how the philosophical traditions that stemmed from the work of these two innovators came to diverge so widely: one investigating intuitions of essences, the other analysing language (to which Frege himself had so ambivalent an attitude). Recent work within the analytical tradition, from the late Gareth Evans onwards, has tended to reverse the explanatory priority which that tradition has historically given to language over thought. This suggests the possibility of a *rapprochement*; at the same time it may seem to threaten a relapse into psychologism. That such a relapse has not occurred is due to

the treatment of the structure of thoughts by adherents of this new tendency after the model of a Fregean semantic analysis of language. Do we have here a means of reconciling the two traditions? Or does the gulf between them remain to be bridged?

Oxford, April 2000

MICHAEL DUMMETT

Introduction

The Logical Investigations (1900/1901)

Edmund Husserl (1859-1938) published his Logische Untersuchungen (Logical Investigations) in two volumes in 1900 and 1901.¹ The first volume, Prolegomena zur reinen Logik (Prolegomena to Pure Logic) appeared from the publisher Max Niemeyer in July 1900.² The second volume, subtitled Untersuchungen zur Phänomenologie und Theorie der Erkenntnis ('Investigations in Phenomenology and the Theory of Knowledge'), containing six long treatises or 'Investigations', appeared in two parts in 1901. This gargantuan work - which Husserl insisted was not a 'systematic exposition of logic' (eine systematische Darstellung der Logik, LI III, Findlay II: 3; Hua XIX/1: 228),³ but an effort at epistemological clarification and critique of the basic concepts of logical knowledge – consisted of a series of analytical inquiries (analytische Untersuchungen) into fundamental issues in epistemology and the philosophy of logic, and also extensive, intricate philosophical discussions of issues in semiotics, semantics, mereology (the study of wholes and parts), formal grammar (the *a priori* study of the parts of any language whatsoever in regard to their coherent combination into meaningful unities), and the nature of conscious acts, especially presentations and judgements. In fact it was these latter detailed descriptive psychological analyses of the essential structures of consciousness, in terms of intentional acts, their contents, objects and truth-grasping character, especially in the last two Investigations, which set the agenda for the emerging discipline Husserl fostered under the name phenomenology.

The *Prolegomena*⁴ appeared as a free-standing treatise dedicated to securing the true meaning of logic as a pure, *a priori*, science of ideal meanings and of the formal laws regulating them, entirely distinct from all psychological acts, contents and procedures. The *Prolegomena* offered the strongest possible refutation to the then dominant *psychologistic* interpretation of logic, propounded by John Stuart Mill and others, which Husserl viewed as leading to a sceptical relativism that threatened the very possibility of objective knowledge. Turning instead to an older tradition of logic stemming from Leibniz, Kant, Bolzano and Lotze, Husserl defends a vision of logic as a pure theory of science – in fact, the 'science of science', in the course of which he carefully elaborates the different senses in which this pure logic can be transformed into a normative science or developed into a practical discipline or 'technology' (*Kunstlehre*).

The second volume of the *Investigations* (1901) was published in two parts: Part One contained the first Five Investigations and Part Two the long and dense Sixth Investigation, the writing of which had considerably delayed the appearance of the work as Husserl began to realise the depth of the phenomenological project he had uncovered. Whereas the *Prolegomena* was particularly influential in turning the tide against *psychologism* (Frege's efforts in the same direction being in relative obscurity at the time), it was the second volume of the *Investigations* in particular that had a major impact on philosophers interested in concrete analyses of problems of consciousness and meaning, leading to the development of phenomenology.

Phenomenology, in line with a general turn away from idealism then current, was to be a science of 'concrete' issues. According to Husserl's Introduction, phenomenology aimed to avoid speculative constructions in philosophy (exemplified, in his view, by Hegel). The *Investigations* impressed its early readers as exemplifying a radically new way of doing philosophy, focusing directly on analysis of the things themselves – the matters at issue (*die Sachen selbst*) – without the usual detour through the history of philosophy, 'merely criticising traditional philosophemes' as Husserl put it (LI VI, Intro., Findlay II: 187; Hua XIX/2: 543), or making partisan declarations in favour of some philosophical system (such as empiricism, positivism, rationalism, Hegelianism or Neo-Kantianism).

Within a decade, as Husserl's ground-breaking efforts came to be recognised, the *Investigations* had established itself as the foundational text of the nascent 'phenomenological movement' (a term Husserl himself regularly invoked) in Germany. The *Investigations*' influence subsequently spread throughout Europe, from Russia and Poland to France and Spain, such that eventually, it is no exaggeration to say that this work took on a status in twentieth-century European philosophy analogous to that of another foundational text – this time in psychoanalysis – *Die Traumdeutung (Interpretation of Dreams)*,⁵ published by Husserl's contemporary Sigmund Freud (1856–1939) in 1899. The *Investigations* continues to be a necessary startingpoint for anyone wanting to understand the development of European philosophy in the twentieth century, from Heidegger and Frege to Levinas, Gadamer, Sartre or Derrida.

Given that the *Logical Investigations* is such a pivotal text in twentiethcentury philosophy, it remains something of a neglected masterpiece, remarkably little read, and where read, poorly understood. For some seventy years it remained untranslated into English. An American philosopher living in Europe, William B. Pitkin sought Husserl's permission to translate it into English in 1905, but he abandoned the effort when he could not get a publisher (see Hua XVIII: xxxvii; XIX/1: xxii). Seemingly, the philosopher William James, who was consulted on the project, advised the publisher not to proceed – suggesting that the last thing the world needed was another German textbook on logic, and so the project was abandoned, which grieved Husserl because he had been an admirer of James.⁶ Marvin Farber, an American student of Husserl's, published a paraphrase of the *Investigations* in 1943,⁷ but it was not until 1970 that John N. Findlay produced the first and only complete English translation of the Second Edition. With the hundredth anniversary of the *Investigations*' publication now upon us, it is important to make Findlay's translation available once again in an accessible form for the English-speaking reader.

The emergence of phenomenology

In the first edition of 1901, Husserl adopted the existing term 'phenomenology' (*Phänomenologie*) – a term already in currency since Lambert, Kant and Hegel, but given new vigour by Brentano and his students – in a somewhat less than fully systematic way to characterise his new approach to the conditions of the possibility of knowledge in general. Husserl wrote in his Introduction:

Pure phenomenology represents a field of neutral researches, in which several sciences have their roots. It is, on the one hand, an ancillary to *psychology* conceived as an *empirical science*. Proceeding in purely intuitive fashion, it analyses and describes in their essential generality – in the specific guise of a phenomenology of thought and knowledge – the experiences of presentation, judgement and knowledge, experiences which, treated as classes of real events in the natural context of zoological reality, receive a scientific probing at the hands of empirical psychology. Phenomenology, on the other hand, lays bare the 'sources' from which the basic concepts and ideal laws of *pure* logic 'flow', and back to which they must once more be traced, so as to give them all the 'clearness and distinctness' needed for an understanding, and for an epistemological critique, of pure logic.

(LI, Findlay I: 166; Hua XIX/1: 6-7)

The logician is not interested in mental acts as such, but only in objective meanings and their formal regulation, the phenomenologist on the other hand is concerned with the essential structures of cognition and their essential correlation to the things known. When Husserl says in this Introduction, 'we must go back to the things themselves' (*Wir wollen auf die 'Sachen selbst' zurückgehen*, LI, Findlay I: 168; Hua XIX/1: 10), he means particularly that the task of phenomenology is to clarify the nature of logical concepts by tracing their origins in intuition:

Our great task is now to bring the Ideas of logic, the logical concepts and laws (die logischen Ideen, Begriffe und Gesetze), to epistemological clarity and definiteness. Here phenomenological analysis must begin. (LI, Findlay I: 168; Hua XIX/1: 9)

More broadly, Husserl wants to document all matters that present themselves to consciousness in their diverse modes of intuitive givenness (and not restricting the sources of intuition arbitrarily in advance, as empiricism and other theories traditionally had done). Husserl initially characterised phenomenology ambiguously as either a parallel discipline to *epistemology*, or as a more radical grounding of epistemology, that sought to *clarify* the essences of acts of cognition in their most general sense. In analysing knowledge, Husserl wanted to do justice both to the necessary *ideality* (that is: self-identity and independence of space and time) of the truths known in cognition, and at the same time properly recognise the essential contribution of the knowing acts of the subject. Thus, looking back in 1925, Husserl described the aim of the *Logical Investigations* as follows:

In the year 1900–01 appeared my *Logical Investigations* which were the results of my ten year long efforts to clarify the Idea of pure Logic by going back to the sense-bestowing or cognitive achievements being effected in the complex of lived experiences of logical thinking.⁸

Husserl's overall aim is to lay down what he describes as the 'phenomenological founding of logic' (die phänomenologische Fundierung der Logik, LI, Findlay I: 175; Hua XIX/1: 22), a clarification of the essential nature of logical knowledge as a preliminary to systematic formal logic and to science in general.⁹ More narrowly, his 'phenomenology of the logical experiences' (Phänomenologie der logischen Erlebnisse, LI, Findlay I: 168; Hua XIX/1: 10) aims to give descriptive understanding of the mental states and their 'indwelling senses' (ihren einwohnenden Sinnes), with the aim of fixing the meanings of key logical concepts and operations, through elaborate and careful distinctions and clarifications. 'Phenomenology', in the First Edition, then, meant the efforts to inquire, radically and consistently, back from the categories of objectivities to the subjective acts, act-structures, experiential foundations in which the objectivities of the appropriate sorts come to be objects of consciousness and to evident self-givenness, working in the domain of pure intuition, rather than being a theoretical or hypothetical construction in the manner of naturalistic psychology. As Husserl put it in 1925, this 'regressive inquiry' brings a new world to light.¹⁰ This is the domain of the correlation between objectivity and subjectivity.

In particular, Husserl wants carefully to analyse the intentional subject matter of *expressive experiences (ausdrückliche Erlebnisse)* where 'expression'

is understood as the articulating of meaning. His focus then is on the ideal sense of the objective intention (ihr intentionaler Gehalt, der ideale Sinn ihrer gegenständlichen Intention, LI, Findlay I: 174; Hua XIX/1: 21). In giving an account of the idea of meaning or expression, Husserl takes concepts apart and elaborates extensively on their many meanings before moving on to discuss other related concepts. Thus, for example, he carefully distinguishes the number of different senses of the term 'presentation' (Vorstellung), separating out its various psychological, logical and epistemological meanings. Likewise, he embarks on conceptual analyses of key concepts such as 'content', 'judgement' and 'consciousness'. Thus he recognises the need to sort out the many meanings of the term 'content' (Inhalt, sometimes Gehalt), a term particularly frequently invoked by logicians and psychologists of the day. In particular, the contrast between what Husserl terms in the First Edition real (reell) and ideal content, and later what he refers to as the distinction between phenomenological and intentional content (LI V §16). A typical example of the clarification Husserl is seeking is his differentiation in Sixth Investigation (§§30-5) of the kinds of unity and conflict of meaning contents that lay the basis for the logical laws of consistency and contradiction. It is these rigorous feats of analysis that won the admiration of early readers and, more recently, of analytic philosophers.

While Husserl's own 'concrete' analyses were initially focused primarily on the foundations of arithmetic and logic, and the structures of knowledge, gradually he and his followers broadened phenomenology to address the *a priori* structures of consciousness in general, including affective, volitional, practical, evaluative, aesthetic, religious, legal, political and other forms of conscious awareness of meaning grasping and meaning articulating. Phenomenology was to be a science of essences and as such it was a pure, *a priori* discipline, attending to the nature of things as given in 'essential seeing' (*Wesensschau*). Phenomenology would broaden the sources of intuition further than previous philosophies had allowed, and clarify the fundamental relation of thought to truth.

Quite early on, the *Investigations* attracted the attention of students of the Munich philosopher and psychologist Theodor Lipps (1851–1914), who himself had been criticised for psychologism in the *Prolegomena* and who, in consequence, altered his views to come largely into agreement with Husserl. Through Lipps's students, especially Johannes Daubert (1877–1947), the *Logical Investigations* became the leading philosophical text for a generation of German philosophers, including Alexander Pfänder (1870–1941), whose prize-winning, *Habilitation* thesis, written under Lipps at Munich, *Phenomenology of Willing. A Psychological Analysis (Phänomenologie des Wollens. Eine psychologische Analyse*, 1900), contained the word 'phenomenology' in the title, although the term does not occur elsewhere in the work.¹¹ Subsequently, Max Scheler (1874–1928), Adolf Reinach (1883–1917), Edith Stein (1891–1942) and Roman Ingarden (1893–1970) were all drawn to this early conception of phenomenology with its strongly realist orientation and its promise of resolving philosophy's hitherto intractable disputes.

The role of the *Investigations* in Husserl's development

Husserl himself regarded his Logical Investigations as a "break-through", not an end but rather a beginning' (ein Werk des Durchbruchs, und somit nicht ein Ende, sondern ein Anfang, LI Findlay I: 3; Hua XVIII: 8).¹² In it, Husserl abandoned his earlier approaches to logic and mathematics expressed in his first book, Philosophie der Arithmetik (Philosophy of Arithmetic, 1891),¹³ which had been judged psychologistic by its chief critic, Gottlob Frege (1848-1925). Husserl discovered a much more fruitful way of doing philosophy in a rigorously scientific way through the clarification of the essences of our fundamental cognitive achievements, eventually leading to his later transformation of phenomenology into a comprehensive transcendental philosophical outlook. Ever a restless innovator, he constantly reinterpreted the significance of his own contribution, and thus the *Investigations* played a singular role in his own philosophical development. Both in his lecture courses and in his private research manuscripts, he constantly reworked the ground covered in the Logical Investigations, for example, in his Göttingen lectures on logic (1906-7), on meaning (1907-8), on logic (1910-11), in his Freiburg lectures on logic and in *Phenomenological Psychology* (1925), in the lectures that eventually evolved into Formal and Transcendental Logic (1929), and even in his Crisis of European Sciences (1936) and the posthumously published Experience and Judgement (1938). Husserl's own 'breakthrough' seemed so surprising even to himself that it had to be constantly rethought.

In later years, Husserl sought to distance himself from the common understanding of the work as solely an exercise in the philosophy of logic. He complained that he was being characterised rather limitedly as a logician, whereas he saw himself more broadly as a theorist of science in general, and as the founder of a new foundational science, first philosophy or phenomenology, which aimed at the careful description of all forms of making *meaning* and registering meaningfulness and hence the whole domain of subjectivity. He even claimed (in a letter to E. Spranger, 1918, guoted in Hua XVIII: xiii) that phenomenology had 'as little to do with logic as with ethics, aesthetics, and other parallel disciplines'. In other words, Husserl would later suggest that it was simply an accident of personal biography that he happened to come to phenomenology through logical researches; he could just as easily have entered the field from another direction entirely. In a letter to Georg Misch of 16 November 1930, Husserl said that he lost interest in formal logic and real ontology when he made his breakthrough to the transcendental, and later concentrated on founding a theory of transcendental subjectivity and intersubjectivity.¹⁴ Before analysing the *Investigations* in more Introduction xxvii

detail, let us now turn, then, to a brief consideration of the author, Edmund Husserl.

Edmund Husserl (1859-1938): life and writings

Edmund Husserl was born in Prossnitz, Moravia (now Prostejov, Czech Republic), on 8 April 1859. He studied mathematics and physics at the universities of Leipzig and Berlin, where he was deeply influenced by the mathematician Carl Weierstrass (1815–97), before moving to the University of Vienna, where he completed his doctorate in mathematics in 1882. Following a brief period as Weierstrass' assistant and a term in the army, Husserl went back to Vienna to study philosophy with Franz Brentano from 1884 to 1886. On Brentano's recommendation, Husserl then went to the university of Halle to study with Brentano's most senior student, Carl Stumpf (1848–1936), completing his *Habilitation* thesis, *On the Concept of Number. Psychological Analyses* with him in 1887.¹⁵ Husserl remained in Halle as a lowly, unsalaried *Privatdozent* from 1887 until 1901, the unhappiest years of his life, as he later confessed.

Although Husserl wrote research notes and manuscripts continuously and obsessively, he published few books during his lifetime.¹⁶ His first publication at Halle came in 1891 with the Philosophy of Arithmetic, whose opening chapters contained a revised version of his Habilitation thesis. The Logical Investigations took another ten years of difficult labour to write, during which Husserl sacrificed many of the routines of family life. Husserl always regarded its results as provisional. Nevertheless, writing the book 'cured' him, as he later said to Dorion Cairns. Its publication facilitated a move from Halle to a new salaried position at the university of Göttingen, a renowned centre of mathematics under David Hilbert (1862-1943). It was during his years at Göttingen that he began to attract both German and international students to pursue the practice and theory of phenomenology. However, Husserl still managed only two publications between 1901 and 1916: an important long essay, Philosophie als strenge Wissenschaft ('Philosophy as a Rigorous Science'), commissioned by Heinrich Rickert for his new journal Logos in 1910/1911,¹⁷ in which Husserl outlined his opposition to all forms of naturalism and historicism (as he understood Dilthey's Weltanschauungsphilosophie to be); and a major book, Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy¹⁸ (hereafter Ideas I), published in 1913, which offered an entirely new way of entering into phenomenology.

To the great shock of Husserl's earlier realist followers (such as Ingarden and Pfänder), *Ideas* I quite deliberately espoused a form of transcendental idealism (involving a radicalisation of the projects of Kant and Descartes), an outlook Husserl would continue to maintain and develop throughout his career. Husserl himself, however, insisted that he really had this orientation in mind when he was developing phenomenology in the *Investigations*. In his Introduction to *Ideas* I, he said that readers of the *Logical Investigations* had misunderstood the work as an exercise in a kind of immanent psychology, whereas he had always intended a purer and more essential phenomenological approach:

In supposed agreement with the *Logische Untersuchungen*, phenomenology has been conceived as a substratum of empirical psychology, as a sphere comprising 'immanental' descriptions of psychical mental processes, a sphere comprising descriptions that – so the immanence in question is understood – are strictly confined within the bounds of internal *experience*. It would seem that my protest against this conception has been of little avail...

(Ideas I: xviii; Hua III/1: 2)

In other words, Husserl would later claim that transcendental phenomenology as a science of pure essential possibilities was entirely distinct from psychology in all its forms, including descriptive psychology (which he now treats as a branch of empirical psychology).

In 1916, Husserl was appointed to the chair of philosophy at the University of Freiburg, which he held until his retirement in 1928. Here, as he recorded in his 1920 Foreword to the revision of the Sixth Investigation (LI, Findlay 1970: 661; Hua XIX/2: 533), he became deeply immersed in teaching and research, pursuing the ideal of a system of philosophy with phenomenology at its core, and published almost nothing, apart from an article on the renewal of philosophy in a Japanese journal Kaizo, a little article on Buddha, and a truncated version of his lectures on time. On the Phenomenology of the Consciousness of Internal Time (1928), edited by his successor to the Freiburg Chair, Martin Heidegger, more or less as a counterpoint to the latter's own Being and Time (1927).¹⁹ During the last decade of his life, however, Husserl was extremely active, giving lectures in Germany, Holland and France, and publishing Formal and Transcendental Logic in 1929,²⁰ and the French version of his Paris lectures, Méditations cartésiennes, in 1931. translated by Gabrielle Peiffer and Emmanuel Levinas.²¹ In part, Husserl's intense activity was spurred by his desire to offer a corrective to Heidegger's version of phenomenological ontology, which Husserl felt distorted and betraved his own mission for a transcendental phenomenology.

Following the coming to power of the National Socialists in January 1933, Husserl and his family suffered under the increasingly severe anti-Semitic laws enacted in Germany, which led to the suspension of his emeritus rights and eventually (in 1935) to the withdrawal of German citizenship. While he continued to live in Freiburg, he was shunned by most of his former colleagues, apart from his assistant Eugen Fink (1905–75) and former student Ludwig Landgrebe (by then a professor in Prague). However, he set about the task of preparing his extensive research manuscripts for publication. Despite meeting with official opposition, Husserl continued to write with new vigour against the crisis of the age, producing work of astonishing scope and originality, e.g., the *Crisis of European Sciences*, developed in lectures in Vienna and Prague and published in Belgrade in 1936 (publication in Germany being denied him).²² After a period of illness, Husserl died in Freiburg in 1938. His last work, *Erfahrung und Urteil (Experience and Judgement)* appeared posthumously, with the extensive editorial involvement of Ludwig Landgrebe, in 1938.²³

Through the intervention of a young Belgian philosophy graduate and priest, Fr Hermann Van Breda (1911–74), much of Husserl's *Nachlass*, including lecture notes and research manuscripts, amounting to some 45,000 pages of hand-written material, composed in an obsolete German shorthand, the Gabelsberger system, was smuggled out of Nazi Germany and is now preserved in manuscript form in the Husserl Archives in Leuven, Belgium. Here, in cooperation with the sister archives in Cologne and Freiburg, researchers are carefully editing these manuscripts for publication in the Husserliana *Gesammelte Werke* series of which more than 30 volumes have already appeared, with more scheduled.

The genesis of the Logical Investigations

On his own admission, the origin of Husserl's Logical Investigations lay in the studies in mathematics, logic and psychology, he had been pursuing, inspired by his teachers Weierstrass, Brentano and Stumpf. As he put it, the Investigations originally grew out of his desire to achieve 'a philosophical clarification (eine philosophische Klärung) of pure mathematics' (Findlay I: 1; Hua XVIII: 5). It worried Husserl that mathematicians could produce good results and yet employ diverse and even conflicting theories about the nature of numbers and other mathematical operations. Their intuitive procedures needed philosophical grounding. In search of this grounding for mathematics, Husserl was led to consider formal systems generally, and ultimately to a review of the whole nature of meaningful thought, its connection with linguistic assertion, and its achievement of truth in genuinely evident cognitions.

Husserl suggested that the *Logical Investigations* was originally inspired by Brentano's attempts to reform traditional logic. As he put it in his 'Phenomenological Psychology' lectures of 1925:

... the *Logical Investigations* are fully influenced by Brentano's suggestions, as should be readily understandable in view of the fact that I was a direct pupil of Brentano.²⁴

In lecture courses Husserl had attended, Brentano had proposed a reform of traditional Aristotelian syllogistic logic, restricting the range of significant logical forms, effectively reducing all forms of quantification to existential quantification, reformulating the structure of logical judgements and recasting sentences in new ways to highlight the underlying logical structure distinct from the grammatical form. Despite its promise, Husserl recognised that Brentano's project was destined to fail, since it lacked a proper clarification of the nature of meaning in general. Only a complete clarification of the 'essential phenomenological relations between expression and meaning, or between meaning-intention and meaning-fulfilment' (Findlay I: 173; Hua XIX/1: 19) could steer the proper course between grammatical analysis and meaning analysis (*Bedeutungsanalyse*), Husserl claimed.

Brentano's failed reform of logic alerted Husserl's attention to serious deficiencies in current accounts of the nature of logic, in J. S. Mill, C. Sigwart, W. Hamilton, B. Erdmann, T. Lipps, and others. Husserl's familiarity with - and deep critique of - the logical and mathematical developments of the nineteenth century are evident in his several critical reviews of logical literature, published in 1894, 1897, 1903 and 1904.25 While he fully recognised the importance of logic understood as a calculus of classes being developed by George Boole (1815-64) and by his German contemporary, Ernst Schröder, and the attempts to interpret logical deduction as a mechanical process made by William Stanley Jevons (1835-82) and others, including Gottlob Frege, Husserl harboured worries about the limitations of formal mathematical logic, which he saw as a refinement of logical technique rather than as a genuine philosophy of logic.²⁶ In particular, Husserl saw a calculus purely as a formal device for mechanically transposing signs (or replacing them with equivalents) according to rules, and thus essentially different from proper logical deduction. Technical brilliance in mathematical logic still required critical theoretical insight in order to elevate it to science.

For a more positive view of logic, Husserl revived 'pure logic', a conception deriving from Leibniz and Kant, but expressed most clearly in the *Wissenschaftslehre* of the neglected Austrian logician Bernard Bolzano (1781– 1848),²⁷ and his followers (especially Frege's teacher Rudolf Hermann Lotze, 1817–81), which saw logic as a purely formal 'science of science'. Husserl singled out Bolzano in particular as one of the greatest logicians and even as the unacknowledged forefather of modern mathematical logic:

Logic as a science must... be built upon Bolzano's work, and must learn from him its need for mathematical acuteness in distinctions, for mathematical exactness in theories. It will then reach a new standpoint for judging the mathematicizing theories of logic, which mathematicians, quite unperturbed by philosophic scorn, are so successfully constructing. These theories altogether conform to the spirit of Bolzano's logic, though Bolzano had no inkling of them.

(LI, Prol. §61; Findlay I: 143; Hua XVIII: 228)

Husserl would also credit Hermann Lotze with opening his eyes to the true nature of the ideal objectivities which logic studied, helping him to understand the domain of the ideal while avoiding Platonic hypostasization.

Of course, as Husserl set out to write the *Logical Investigations* many other philosophical issues pressed on him, leading him considerably beyond what might be considered to belong strictly to the task of laying the foundations of logic and into broader questions of epistemology, semantics and even ontology. Husserl was drawn to inquire into the conditions of meaningful utterance and expression generally, beginning with the nature of signification in general, linguistic expression, the relation between individual and species, the *a priori* laws governing the whole-part structures generally, the formal laws governing linguistic sense and non-sense, the puzzling nature of intentional content and reference, and, finally, the nature and structure of conscious acts as such, and specifically the nature and structure of judgements which aim at truth and which were traditionally considered to be the vehicles of logical thought. These themes make up the six Investigations of the second volume.

Husserl's struggle to rescue logic from psychology

As Husserl acknowledged in the Foreword to the Investigations, his philosophical career began from Brentano's assumption that logical issues could only be clarified by psychology. However, his initial attempts at laying a 'psychological foundation' (psychologsiche Fundierung, LI, Findlay I: 2; Hua XVIII: 6) for arithmetical and logical concepts and judgements quickly ran into problems. While psychology was undeniably useful for clarifying the practical procedures of human reasoning and in accounting for the origins of concepts, it failed completely to appreciate or handle the logical unity of the 'thought content' (Denkinhalt, Findlay I: 2; Hua XVIII: 6) involved, specifically, the complete independence of this content from all our psychical behaviour. The Pythagorean theorem stands as an independent valid truth whether anyone actually thinks it or not. Such thought contents possess an 'ideality' that allow them to be instantiated in different thought processes of the same individual (LI, Intro. §2, Findlay I: 167; Hua XIX/1: 8) or in diverse individuals' thoughts at different times. Psychological analysis could not accommodate this peculiar ideal unity of thought contents. Husserl therefore suspended his investigations into the philosophy of mathematics to grapple with the 'fundamental epistemological questions' (die Grundfragen der Erkenntnistheorie, Findlay I: 2; Hua XVIII: 7) thrown up by his recognition of the ideality of meanings. Mathematics and logic needed a thorough *epistemological* grounding; through a 'critique of knowledge' (Erkenntniskritik) to be carried out through the application of phenomenological essential insight, as Husserl would develop it.

In the *Investigations*, then, Husserl aims at the very 'Idea (*Idee*) of meaning' and the 'Idea of knowledge' – the systematic conception of the essence of meaning and knowledge, which had been completely obscured in the psychologistic approach. He employed the term 'phenomenology' to express this kind of fundamental epistemological inquiry (see LI Intro. §7), which looked at the very structure of acts of thinking and knowing as well as at the objects of knowledge in terms of their essential meanings.

Inspired by his intensive reading of Bolzano, Lotze and other logicians, and of contemporary Brentanians such as Kasimir Twardowski (1866-1938), Alois Höfler (1853-1922) and Alexius Meinong (1853-1920), Husserl came to question the idea of psychological grounding. Husserl came to reject the account in the Philosophy of Arithmetic of the genesis of arithmetic concepts as given which employed Brentanian descriptive psychology to trace the psychological genesis of numbers in acts of collecting and colligating. His much discussed interaction with the logician Gottlob Frege in the early 1890s may also have helped to accelerate the shift that was already occurring in his thinking.²⁸ It is at least clear that both philosophers separately were developing sophisticated accounts of the difference between the 'sense' (Sinn) of an expression and its objective reference. In Husserl's case this distinction would deepen his understanding of the structure of the intentional relation leading ultimately to his 'breakthrough' recognition of the essential correlation between thinking and its object, which he says occurred around 1898.29

From the outset of his career, Husserl had regarded Brentano's rediscovery of intentionality (the 'aboutness' or 'directedness' of mental acts) as hugely significant for the analysis of cognitive acts and processes (which Husserl called 'Erlebnisse', lived experiences or mental processes), but, during the 1890s, he came to reject as unsatisfactory Brentano's account, which seemed embedded in Cartesian immanentist assumptions about the nature of ideas, and which left dangling the issue of the status of intentional objects. Husserl was dissatisfied with Brentano's characterisation of the intentional object as 'inexistent' and as 'indwelling' in the act. This characterisation seemed to repeat the impasse of the modern representationalist account of knowledge in Locke and others, with its attendant problem of the ability of the mind to get beyond its own representations. Brentano had maintained that every presentation related to an object, but what about presentation that appeared to have no objects? Bolzano had discussed 'objectless presentations' and the problem of the status of thoughts that involved impossible or non-actual entities (round squares, golden mountains, and so on) had been bequeathed to Brentano's pupils, especially Twardowski and Meinong. Do all thoughts refer to objects, even thoughts of impossible objects?

In a number of studies throughout the 1890s Husserl carefully clarified his own understanding of the relations between the intentional act, its content and object, in, for example, his fragments discussing the differences between 'intuition' (Anschauung) and 'representation' (Repräsentation) in terms of the kind of 'fulfilment' (Erfüllung) involved,³⁰ in his draft review of Twardowski's book On the Content and Object of Presentations,³¹ and in the several drafts of his never completed study, Intentionale Gegenstände ('Intentional Objects'), probably written in 1894 and re-worked up to 1898.³² The results of these investigations found their way into the second volume of the Investigations, especially the First and Fifth Investigations and the Appendix to the Sixth Investigation, where the issue of intentionality and Husserl's distance from Brentano's conception of inner perception are treated at some length.

Briefly, Husserl rejected Brentano's attempts to define psychical phenomena in distinction from physical phenomena and his account of 'immanent objectivity'. For Husserl, the main achievement of Brentano was that he identified the essential 'pointing-beyond-itself' (über-sich-hinausweisen) of the mental act. Twardowski's attempt to distinguish between the sensuous immanent content of the act, the act's intentional object, and the real object referred to, also suffered from a 'false duplication' of the object.³³ Husserl's answer was to distinguish between the immanent sensuous 'reelle' contents of the mental act and the transcendent ideal meaning-content of the act, which guarantees we are speaking of the same meaning across repeated acts, and between these and the transcendent object of the act (and not as Twardowski considered it the *immanent* object).³⁴ By the late 1890s Husserl had developed the main elements of his account of the relations between signs and things signified, between intentions and their intuitive fulfilments, but it seems likely that his crucial distinction between sensuous acts and acts of *categorial* intuition did not emerge until he began writing the six Investigations themselves. This notion of categorial intuition, a distinct intuition of complexes founded on sensory intuition, opened up the proper domain of phenomenological viewing as Husserl would develop it after 1901.

The results of Husserl's intensive research during his most active decade of the 1890s were brought together in a remarkable way in the Investigations. Thus, for instance, his 1894 article, Psychologische Studien zur elementaren Logik ('Psychological Studies in the Elements of Logic'),³⁵ sketched the distinction between dependent and independent contents that inaugurated the theory of parts and wholes later incorporated into the Third Investigation. But the first real start on writing the *Investigations* came in 1896 when Husserl delivered the lectures that formed the basis of the *Prolegomena* and in 1899 began to prepare the six Investigations themselves for the press. There is some evidence, chiefly his wife Malvine's account, that Husserl was still feverishly revising when the manuscript was wrested from his hands by Stumpf and sent to the publisher.³⁶ Certainly, it is clear that Husserl was having difficulties containing the Sixth Investigation as it grew in length and complexity and forced him to rethink distinctions made in the earlier Investigations, including his account of the relation between demonstrative indication and fulfilment of meaning in cases of perception.

The published revisions of the Logical Investigations (1913, 1921)

Almost as soon as the First Edition of the Logical Investigations appeared, Husserl began to express dissatisfaction with some of its formulations and began to revise. In his 1902/3 lectures on epistemology, he was already clarifying the distinction between phenomenology which he characterises as a 'pure theory of essences' (reine Wesenslehre) and descriptive psychology.37 But his first public opportunities came in 1903, with his reply to a critic named Melchior Palágyi³⁸ – where he made clear that his concept of ideality was drawn from Hermann Lotze, and that he was not opposed to the psychological explanation of concepts but only to the founding of logic upon such an explanation - and with his Bericht über deutsche Schriften zur Logik in den Jahren 1895-1899 ('Report on German Writings in Logic from the Years 1895-1899'), where he repudiated his initial characterisation of the work as a set of investigations in 'descriptive psychology'.³⁹ From around 1905, as is evident from letters written to Scheler and others, Husserl clearly intended to publish a revised edition of the Investigations (see Hua XIX/1: xxiii). In subsequent lecture courses at Göttingen, e.g., in 1906-7,40 1907-8,41 and 1910-11,42 Husserl developed new conceptions of logic, semiotics, and semantics (including the theory of the forms of meanings begun in the Fourth Investigation, but which needed to be revised in the light of the Sixth), offering essential revising of aspects of the earlier tentative formulations, and leading ultimately to an entirely new theory of phenomenological meaning, publicly announced as the doctrine of the noema in Ideas I.

Also, from around 1905 and inspired by his reading of Kant and Descartes, Husserl was moving in a transcendental direction, embracing both Descartes' project of *prima philosophia*, first philosophy, and Kant's project of a 'critique of reason'.⁴³ Husserl was revising his thoughts on the nature of the flow of consciousness and on the conception of the pure ego, which he had repudiated as an unnecessary postulate in the First Edition (where he was satisfied with the empirical ego). He gradually came to see the need for a fundamental *change of attitude (Einstellungsänderung)* away from the 'natural attitude' as a prerequisite for the proper phenomenological seeing of the essences of cognitive acts ('noetic' acts in general) and their objects understood as pure possibilities of any consciousness whatsoever. This reorientation shed new light on the *correlation* between the intentional act and its object, understood as what is intended in the manner in which it is intended, a conception that eventually would be named as the *noema*, which made its first published appearance in *Ideas* I.

As Husserl engaged in this self-criticism and reorientation, the problem of relating these new concepts of phenomenology to his existing published work became evident. Around 1911, with the First Edition of the *Investigations* now out of print, and with misinterpretations gaining currency among

his followers, Husserl began to think seriously about revising the whole work in the light of a new introduction to phenomenology and transcendental philosophy which he was planning, and which eventually appeared as *Ideas* I (1913).⁴⁴ At first, Husserl harboured ambitious plans to offer a number of new expositions of phenomenology and phenomenological philosophy that would render the old *Investigations* obsolete (see his letter of 7 July 1912 to W. E. Hocking, quoted in Hua XIX/1: xxvi). However, since *Ideas* I was a deliberately programmatic work, to complement it Husserl saw the need for examples of concrete phenomenological analyses – 'attempts at genuinely executed fundamental work on the immediately envisaged and seized things themselves' (*Versuche wirklich ausführender Fondamentalarbeit an der unmittelbar erschauten und ergriffenen Sachen*, Findlay I: 4; Hua XVIII: 9), as he puts it in the Foreword to the Second Edition. The six Investigations would remain the paradigm of these concrete phenomenological inquiries.

Husserl began revising the text of the *Logical Investigations* in March 1911, but only made real progress in spring 1913 after *Ideas* I went to press. However, even his relatively modest planned revision, done in the light of his new understanding of phenomenology (as expressed in *Ideas* I), proved too demanding, and he produced only a partially revised Second Edition in 1913.⁴⁵ This was Husserl's 'middle course' (*Mittelweg*), as he put it in his Foreword to the Second Edition, where he articulated three 'maxims' that guided the revision (Findlay I: 4–5; Hua XVIII: 10–11): namely, to leave individual errors standing as representing steps in his own path of thinking; to improve what could be improved, without altering the course and style of the original; to lift the reader level by level to newer and deeper insights.

In the revision the *Prolegomena*, which was written with a single purpose, was left largely unchanged; but those passages in the Investigations that specifically discussed the nature of phenomenology, and the kind of essential insight involved, were extensively altered and expanded. In general, the Second Edition highlights the central discovery of phenomenology, a concept that had received only tangential and incidental treatment in the First Edition, and gives surer indications about its nature. Thus, invoking his 1903 essay (quoted in Foreword to the Second Edition, Findlay I: 6; Hua XVIII: 13), Husserl claims that the chief error of the 1901 edition was to call phenomenology a 'descriptive psychology', whereas in fact, phenomenology knows nothing of personal experiences, of a self, or of others, similarly it neither sets itself questions, nor answers them, nor makes hypotheses. In 1903, Husserl had claimed that this purely immanent phenomenology was to be free of all suppositions about the nature of the psychological, and furthermore, it would actually provide a critique of knowledge that might then be used as a basis for empirical psychology or other sciences. But, in itself, phenomenology is not identical with descriptive psychology.⁴⁶ This phenomenological approach brings to evidence the general essences of the concepts and laws of logic. While both descriptive psychology and phenomenology are *a priori* disciplines, phenomenology cuts all its ties with individual minds and real psychic processes, even those understood in the most exemplary manner (LI, Intro. §3, Findlay I: 171; Hua XIX/1: 16 – added in the Second Edition).

Husserl is now more emphatic that this eidetic science relies entirely on the evidence of pure intuition, and operates within the 'sphere of immanence', bracketing all concerns with worldly existence and real psychological processes. Husserl thus imports into the text of the Investigations the notions of bracketing, epoché, and reduction, which had become central to his expositions of phenomenology only after 1905.47 Husserl now stresses the remoteness and unnaturalness of phenomenological reflection and expands the section (LI, Intro. §3) devoted to listing various difficulties that attach to how we move from naïve to reflexive understanding. Pure phenomenological seeing (Wesensschau) must be purged of its inherent world-positing tendency and associated beliefs that belong to what Husserl calls 'the natural attitude' (die natürliche Einstellung) with its assumption of real existence (empirisch-reales Dasein; see LI V §2, Findlay II: 82; Hua XIX/1: 357 - paragraph added in the Second Edition). It was this purification of epistemology from the distortions imposed by the natural attitude that led Husserl to see phenomenology as essentially distinct from any psychology, including descriptive psychology. Instead, phenomenology was to be the 'universal science of pure consciousness'.48 Husserl later stressed that the First Edition was already de facto 'analyses of essence', but that he gradually came to clearer self-consciousness regarding the purely eidetic nature of his inquiries.49

The revisions of the Second Edition constantly underscore the pure a priori, eidetic character of phenomenology. Consider the following typical revision to the Third Investigation. The original sentence in the First Edition, referring to the relations of dependence holding between quality and intensity of a tone, reads: 'And this is not a mere fact but a necessity'. The Second Edition reworks this sentence to read: 'Evidently this is no mere empirical fact, but an a priori necessity, grounded in pure essence' (LI III §4, Findlay II: 18; Hua XIX/1: 237). The pure a priori essential character of the laws uncovered by phenomenological insight is now sharply contrasted with the kind of empirical generalisation characteristic of the natural sciences. To clarify this further, Husserl replaced Section 12 of the Third Investigation (LI III §12), which had dealt with dependence relations between temporally coexisting and successive parts, with a completely rewritten section in the Second Edition, which specifies more exactly the nature of the distinction between analytic and synthetic propositions, whereby analytic propositions are purely formal and are not determined by their content in any way. whereas a priori laws which relate to contents are synthetic a priori.

Phenomenology focuses on the essential features of conscious states in general (akin to Kant's concern with knowledge in general, *Erkenntnis*

 $\ddot{u}berhaupt$ – a conception already elaborated in the First Edition) understood as pure possibilities rather than in terms of any empirical instantiation in animals, humans or other kinds of minds. In contrast with pure phenomenology, Husserl now more sharply characterises all psychology as empirical, as a causal science of physical organisms and their psychophysical states, e.g., 'as the empirical science of the mental attributes and states of animal realities' (als Erfahrungswissenschaft von psychischen Eigenschaften und Zuständen animalischer Realitäten, LI, Intro. §2, Findlay I: 169; Hua XIX/1: 12), the science which studies 'the real states of animal organisms in a real natural order' (LI Intro. §6, Findlay I: 176; Hua XIX/1: 23). Husserl distinguishes both empirical and its sub-branch descriptive psychology from pure phenomenology. While psychology is a valuable empirical science, the reduction of meanings to their psychological states, i.e., 'psychologism', is a natural, ever present temptation to the mind ('at first inevitable, since rooted in grounds of essence', LI, Intro. §2, Findlay I: 169; Hua XIX/1: 12), which can only be cured by phenomenological analysis. Only pure phenomenology, and not descriptive psychology, Husserl writes in the Second Edition, can overcome psychologism (LI, Intro. §2, Findlay I: 169; Hua XIX/1: 11-12). Furthermore, Husserl departs from Neo-Kantianism, by stressing that the grasp of the conditions for the possibility of knowledge comes from insight into the essence of knowledge, that is from phenomenological viewing.

In keeping with his new transcendental orientation, Husserl has more appreciation in the Second Edition of 'the pure ego' (*das reine Ich*, LI V §§5, 8) of the Neo-Kantians (especially Natorp), which he had originally dismissed as an unnecessary postulate for the unification of consciousness (see LI V §8, Findlay II: 352; Hua XIX/1: 374). He also endeavours to improve his initial attempts at drawing a distinction between the quality and intentional matter of acts. In particular, he was unhappy with his original characterisation of the sensuous matter of the act and the manner in which it is taken up and interpreted in the act. His later account of the *noema* was offered as a corrective (see, e.g., LI V, §16, Findlay II: 354; Hua XIX/1: 411).

In the First Edition, Husserl had characterised phenomenology as expanding or as clarifying *epistemology* (e.g., LI Intro. § Findlay I: 166; §2, I: 168), in that it offered a kind of 'conceptual analysis' (*Begriffsanalyse*), concerned with differentiating and disambiguating the different senses of basic epistemological concepts (such as 'presentation', *Vorstellung*). In his Introduction to the Second Edition, Husserl is now more aware of a possible misunderstanding whereby this conceptual analysis would be misunderstood purely as an investigation of language, in short as *linguistic analysis*, whereas in fact Husserl is anxious to distinguish his 'analytical phenomenology' from linguistic analysis. Reliance on language can be misleading, Husserl believes, because linguistic terms have their home 'in the natural attitude' (*in der natürlichen Einstellung*) and may mislead about the essential character of the concepts they express, whereas phenomenological thinking about consciousness takes place in the eidetic realm where all natural attitudes are bracketed. For Husserl, it is certainly true that the objects of logic – propositions or statements (*Sätze*) – are encountered only in their grammatical clothing, i.e., in linguistic assertions, and it is an obvious fact that the findings of science eventually take the form of linguistic utterances or sentences. Husserl, then, agrees with J. S. Mill that discussions of logic must begin with a consideration of language, though not issues of the nature of grammar or the historical evolution of language as such, but rather in relation to a theory of knowledge. Husserl is seeking a '*pure phenomenology of the experiences of thinking and knowing*' (Findlay I: 166; Hua XIX/1: 6), experiences not to be understood as empirical facts, but rather grasped in 'the pure generality of their essence' (ibid.). Linguistic analysis is not a substitute for a fundamental analysis of consciousness (see LI I §21). In this sense, phenomenology clarifies our linguistic practice and not the other way round.

Husserl's incomplete revisions of the Sixth Investigation

In 1913 Husserl intended to revise the Sixth Investigation in a radical fashion, but became bogged down (see his letter of 23 June 1913 to Daubert, quoted in Hua XIX/1: xxv), and eventually withheld it when he sent the revised five Investigations to press. Husserl now recognised that his original account of categorial intuition with its realist commitments did not fit comfortably with his new transcendental idealist framework. He made various attempts at a complete reworking of this Investigation in late 1913 and again in 1914, but lost enthusiasm for these revisions during the war years (1914-18), when exhaustion prevented research 'on behalf of the phenomenology of logic' (für die Phänomenologie des Logischen, Findlay II: 177; Hua XIX/2: 533). As he recounted, he could only 'bear the war and the ensuing "peace" by engaging in more general philosophical reflections, specifically the elaboration of his 'Idea of a phenomenological philosophy' (Idee einer phänomenologsiche Philosophie, Findlay II: 177; Hua XIX/2: 533). Meanwhile, he gave the manuscripts to Edith Stein who attempted to order them into two articles for the Jahrbuch, but she could not get Husserl to look over her work and the project stalled.

After the war, Husserl turned again to logic and eventually was prevailed upon to publish a limited revision of the Sixth Investigation in spring 1921. In his Foreword, dated Freiburg, October 1920, Husserl regrets that he was unable to produce the radically revised Sixth Investigation promised in 1913, and acknowledges that it was the pressure of friends (including, presumably, his new assistant, Martin Heidegger) that finally forced him to produce this new edition. In fact, Husserl was never satisfied with his revision and continued to work intermittently on a full revision of this crucial Investigation. leaving some drafts that remained unpublished at his death.⁵⁰ These drafts attempt a complete rethinking of the nature of signs involving a distinction between significative and significative intentions in attempting to specify the achievement of abstract symbolic thought.⁵¹ Husserl was also gradually coming to recognise the contextual aspect of meaning which would lead eventually to his discovery of 'genetic' phenomenology in the early 1920s.

Husserl's 1920 Foreword is written in tones of exasperation and defensiveness regarding the many misunderstandings of his work then current. He details changes made, mainly in the second section of the Sixth Investigation, entitled Sinnlichkeit und Verstand (Sensibility and Understanding), where the concept of categorial intuition - originally introduced in the First Investigation - is treated at some length. Husserl maintains that his critics have misunderstood his talk of immediacy as relating to the immediacy of sensory intuition rather than to the nature of intuition generally. In particular he attacks the views of Friedrich Albert Moritz Schlick (1882-1936, founder of the Vienna Circle), as expressed in his Allgemeine Erkenntnislehre (General Theory of Knowledge, $1918)^{52}$ where he had argued that Husserl's Ideas I relied on a bizarre notion of non-physical intuition that required a peculiarly strenuous kind of study. Husserl replies that by 'strenuous study' he means no more than the application of a mathematician. Schlick's criticism typifies a more general unease in philosophical circles with Husserl's emphasis on intuition which was seen by many as promoting an irrational intuitionism that could not be corrected. The Neo-Kantians voiced similar criticisms of Husserl's concept of categorial intuition, as is evident from Fink's reply to Husserl's critics.⁵³ How could one have intuition of the categorial? Husserl, on the other hand, understood by intuition, cognitive experiences which are accompanied by adequate evidence. He wants always to emphasise that acts of knowing are essentially diverse and that their respective modes of intuitive fulfilment must be appreciated and appropriately distinguished.

In his Foreword to the revision of the Sixth Investigation, Husserl also challenges an accusation – apparently widespread, but which he vehemently rejected – that he had rejected psychologism in the first volume of the *Investigations* only to fall back into it in the second (LI, Findlay II: 178; Hua XIX/2: 535).⁵⁴ Husserl believes these critics have failed to appreciate the true sense of his phenomenology, and have misunderstood it as a kind of introspectionist psychology. In order completely to separate phenomenology from introspectionism, psychology and indeed all natural sciences, Husserl emphasises the need to undertake the *epoché* and the reduction. It was only by removing all traces of the natural attitude in regard to our cognitive achievements that their true essences can come into view in an undistorted manner. This claim integrates the *Logical Investigations* into Husserl's later transcendental idealism, whose treatment is beyond the scope of this introduction. Let us now turn to examine in more detail the philosophical content of the work itself.

Husserl's Kampfschrift: the Prolegomena

In the Foreword to the Second Edition, Husserl records that the *Prolegomena* was a 'polemic on psychologism' (*Streit um den Psychologismus*, Findlay I: 6; Hua XVIII: 12), and major figures such as Paul Natorp, Wilhelm Dilthey and Wilhelm Wundt recognised it as such, so that the *Prolegomena* took on a life of its own and had an independent impact in German philosophy for its criticism of psychologism. Husserl, however, liked to emphasise its coherence with the second volume and wrote to Meinong that the critique of psychologism was central to his phenomenology of knowledge in general (letter of 27 August 1900, quoted in Hua XVIII: xvii). Others, including Wundt, could not so easily see the connection between the two volumes.

According to the Foreword, the first draft of the *Prolegomena* originated as two series of lectures delivered at Halle in the summer and autumn of 1896 (Findlay I: 5; Hua XVIII: 12) and written up in 1899. These 1896 lectures had already set out Husserl's conception of logic as a pure, formal, autonomous science of ideal meanings and the ideal laws which govern them, and offering a sharp differentiation of pure logic from the more traditional interpretation of logic as an 'art' or 'technique' (*Kunstlehre*) of thinking well. The Halle lectures, however, do not contain some of the more important parts of the *Prolegomena*, namely, the discussion of relativism (*Prol.* §§32–7), and the detailed criticisms of Mill, Spencer, Sigwart and Erdmann, and the discussion of 'thought-economy' associated with Mach and Avinarius (*Prol.* §§52–6). As the *Prolegomena* was written entirely in one cast of mind, Husserl did not feel the need to make major revisions in the Second Edition.

Husserl's negative aim was to demonstrate that the psychologistic interpretation of logic was a self-defeating, self-contradictory absurdity:

the correctness of the theory presupposes the irrationality of its premises, the correctness of the premises the irrationality of the theory. (Prol. §26, Findlay I: 61; Hua XVIII: 95)

Furthermore, whereas the study of traditional logic should have given a clear understanding of the 'rational essence of deductive science' and indeed be the 'science of science', in fact the logic of his time was not adequate to that task. Husserl's positive aim was to find out 'what makes science science' (*Prol.* §62, Findlay I: 144; Hua XVIII: 230), but the unclarity and confusion surrounding logical concepts put the whole project of exact scientific knowledge at risk:

In no field of knowledge is equivocation more fatal, in none have confused concepts so hindered the progress of knowledge, or so impeded insight into its true aims, as in the field of pure logic.

(Prol. §67, Findlay I: 154; Hua XVIII: 246)

In his 1900 Selbstanzeige ('Author's Report') to the Prolegomena Husserl announced that he was defending logic as a pure, a priori, independent, theoretical science, reviving the older Bolzanian idea of a pure logic against the prevailing psychologistic misinterpretation of logic that leads to contradictions and absurdities, and ultimately to sceptical relativism. Husserl argues that logical laws and concepts belong to the realm of the ideal, being purely formal, that is, applied in general to every kind of content. In the Prolegomena Husserl makes an important distinction between empirical generalisation and the kind of formalisation required for idealisation in science and mathematics. He contrasts this pure theoretical logic with applied logic, understood as an art of thinking (Kunstlehre), drawing an analogy with the contrast between pure geometry and the art of land surveying (Feldmesskunst). Thus, in the Selbstanzeige Husserl defines pure logic as

... the scientific system of ideal laws and theories which are purely grounded in the sense of the ideal categories of meaning; that is, in the fundamental concepts which are common to all sciences because they determine in the most universal way which makes sciences objective sciences at all: namely, unity of theory.⁵⁵

Science as such is for Husserl a regulated interconnection of ideal truths expressed in propositions. Logic deals with these propositions and their component meanings in their utmost generality, understood as pure categories. According to Husserl, following in the Kantian tradition, all logical distinctions are 'categorial' (LI II §1) and belong to 'the pure form of possible objectivities of consciousness as such' (LI II, Findlay I: 240; Hua XIX/1: 115). Furthermore, knowledge can be about many kinds of different things, there are multifarious objects of knowledge, not just real things, but ideal entities, relations, events, values. The conception of scientific knowledge must be sufficiently broad to accommodate this diversity of objects of knowledge. Husserl, then, wants a new account of logic as a pure *a priori* science, a *mathesis universalis* in the manner of Leibniz. It must be balanced with a new theory of the nature of objects in general, formal ontology, developed in the Third Investigation. In other words, pure logic has a counterpart, the pure theory of objects.

Husserl's encounter with Frege – the issue of psychologism

Since the rejection of psychologism and the defence of the ideal objectivity of logical laws is now more usually credited to Gottlob Frege rather than to Husserl, it is appropriate at this point to examine the relations between these two logicians. In fact, they corresponded with one another on various issues in mathematics and semantics in 1891 (and again in 1906). Husserl

was one of the first philosophers in Germany to recognise Frege's work. and, although he had criticised Frege's account of the nature of identity in the *Philosophy of Arithmetic* in 1891, relations between the two were collegial and mutually respectful. But, in 1894, Frege published an acerbic review of Husserl's Philosophy of Arithmetic, in which he accused Husserl of making a number of fundamental errors.⁵⁶ According to Frege, Husserl treated numbers naïvely as properties of things or of aggregates rather than as the extensions of concepts (the extension of a concept is the set of objects the concept picks out).⁵⁷ Husserl had seen number as deriving from our intuition of groups or multiplicities and since neither one nor zero is a multiple, strictly speaking they were not positive numbers for Husserl. Frege criticised Husserl's account of zero and one as negative answers to the question: 'how many?' Frege states that the answer to the question, 'How many moons has the earth?', is hardly a negative answer, as Husserl would have us believe. Furthermore, Frege believed, Husserl seemed to be confusing the numbers themselves with the presentations of number in consciousness, analogous to considering the moon as generated by our act of thinking about it. Crucially for Frege, in identifying the objective numbers with subjective acts of counting, Husserl was guilty of *psychologism*, the error of tracing the laws of logic to empirical psychological laws. If logic is defined as the study of the laws of thought, there is always the danger that this can be interpreted to mean the study of how people actually think or ought to think; understanding necessary entailment, for example, as that everyone is so constituted psychologically if he believes p and if he believes that p implies q then he cannot help believing that q is true. For Frege, Husserl has collapsed the logical nature of judgement into private psychological acts, collapsing together truth and judging something as true.

According to the journal kept by W. R. Boyce-Gibson, who studied with Husserl in Freiburg in 1928, Husserl later acknowledged that Frege's criticisms had 'hit the nail on the head'. On the other hand, there is considerable evidence that Husserl was already moving away from his own earlier psychologism when Frege's review was published, especially in his critique of Schröder's Algebra of Logic.⁵⁸ Husserl was already embracing Bolzano's Wissenschaftslehre⁵⁹ with its doctrine of 'states of affairs' and 'truths in themselves', whose precise nature he then came to understand through his reading of Hermann Lotze's account of the Platonic Ideas, as he had reported in his reply to Melchior Palágyi in 1903. Given the supposedly crucial importance of Frege's review of Husserl, it is surprising that Frege receives only one mention in the Prolegomena in a footnote (Prol. §45, Findlav I: 318; Hua XVIII: 172 n. **) where Husserl writes: 'I need hardly say that I no longer approve of my own fundamental criticisms of Frege's antipsychologistic position set forth in my Philosophy of Arithmetic'. Husserl now cites both Frege's Die Grundlagen der Arithmetik (Foundations of Arithmetic, 1884) and the Preface to his Grundgesetze der Arithmetik (Fundamental

Laws of Arithmetic, 1893) as anti-psychologistic statements of which Husserl can now approve.

In fact, Husserl had abandoned the approach of the *Philosophy of Arithmetic* almost as soon as it was published in 1891. He realised that the cardinal numbers were not the basis of all numbers, and in particular that the psychological approach could not handle the more complex numbers (e.g., the imaginary numbers). In the *Prolegomena* Husserl explicitly denies that numbers themselves are to be understood in terms of acts of counting although they can only be accessed through acts of counting:

The number Five is not my own or anyone else's counting of five, it is also not my presentation or anyone else's presentation of five.

(LI, Prol. §46, Findlay I: 109; Hua XVIII: 173-4)

While it is only by counting that we encounter numbers, numbers are not simply products of the mind. This would deny objective status to mathematics. The psychological origin of arithmetic concepts does not militate against the independent ideal existence of these concepts as species quite distinct from 'the contingency, temporality and transience of our mental acts' (LI, Prol. §46, Findlay I: 110; Hua XVIII: 175). Two apples can be eaten but not the number two, Husserl says in his 1906/7 lectures. For Husserl, logical concepts contain nothing of the process by which they are arrived at, any more than number has a connection with the psychological act of counting. Numbers and propositions, such as the Pythagorean theorem, are ideal 'objectivities' (Gegenständlichkeiten, Findlay: 'objective correlates'), which are the substrates of judgements just as much as any real object is. In contrast to 'real' entities that bear some relation to time, if not to space, the pure identities of logic are 'irreal' or 'ideal'. Husserl characterised them as 'species' in the Aristotelian sense, along side other 'unities of meaning', for example the meaning of the word 'lion', a word which appears only once in the language despite its multiple instantiations in acts of speaking and writing. What is logically valid is a priori applicable to all worlds. In the Prolegomena, then, Husserl, holds a view similar to Wittgenstein in the Tractatus - logic says nothing about the real world, the world of facts. It is a purely formal a priori science. Husserl, however, integrates logic into a broader conception of the theory of science.

Whereas Husserl had begun in 1887 with the assumption that psychology would ground all cognitive acts, he ends the Foreword to his *Investigations* by quoting Goethe to the effect that one is against nothing so much as errors one has recently abandoned, in order to explain his 'frank critique' (*die freimütige Kritik*) of psychologism (LI, Findlay I: 3; Hua XVIII: 7). While in agreement with Frege concerning the dangers of psychologism for logic, Husserl was not persuaded by Frege's project for mathematical logic as, in general, he was, as we have seen, suspicious of the purely formal turn

to symbolic logic, exemplified in his day by the logical programmes of George Boole (see Hua XXIV: 162), William Stanley Jevons and Ernst Schröder, which for him contained theoretical flaws and confusions. That is not to say that Husserl thought of formalisation as unnecessary; in fact, he saw it as the only purely scientific way of advancing logic (LI, *Prol.* §71, Findlay I: 158–9; Hua XVIII: 254). Thus he praised the elegance with which mathematicians were expanding and transforming the domain of traditional logic, and he criticised those who refused to recognise the proper role of mathematics in these matters. However, Husserl believed that this mathematical tendency was manifesting itself as a kind of technical ability that had not reflected on the nature of its founding concepts. Philosophy must try to think through the essential meanings of logical procedures:

The philosopher is not content with the fact that we find our way about in the world, that we have legal formulae which enable us to predict the future course of things, or to reconstruct its past course: he wants to clarify the essence of a thing, an event, a cause, an effect, of space, of time, etc., as well as that wonderful affinity which this essence has with the essence of thought, which enables it to be thought, with the essence of knowledge, which makes it knowable, with meaning which make it capable of being meant etc.

(Prol. §71, Findlay I: 159; Hua XVIII: 255)

As Husserl put it in his 1906/7 lectures, 'Introduction to Logic and Theory of Knowledge', one must distinguish between mathematical logic and philosophical logic (Hua XXIV: 163). Towards the end of his life Husserl would repeat this criticism in The Crisis of European Sciences, where he would criticise this 'idolization of a logic which does not understand itself' and claim that a formal deductive system is not in itself an explanatory system (Crisis, §55, Carr: 189; Hua VI: 193). For Husserl, purely extensionalist logic or calculus could never be more than a brilliant technique. From the Prolegomena onwards, Husserl offered a complex account of the full nature of what he called 'formal logic', utilising a much wider conception than is now current. In some respects his account of logic is quite traditional, being centred on the notion of judgement or assertion (Greek: apophansis) and hence is, following Aristotle, characterised as 'apophantic logic' (see LI, IV §14, Findlay II: 72; Hua XIX/1: 344). On the other hand, in Formal and Transcendental Logic (§§12-15) Husserl articulated this mature vision of this 'formal logic', which for him included formal grammar or what he called 'the pure theory of forms of meaning' that laid down the conditions of meaning combination as such; then a second level of 'consequence-logic' or the logic of validity which is concerned with inference; and finally a 'logic of truth', which recognised that logic aims not only at formal validity but seeks to articulate truth. In the Prolegomena Husserl also saw the need for a general 'theory of manifolds' or the theory of the possible forms of theories to complete his account of the nature of logic in general. We cannot deal with the complexities of Husserl's vision of logic here, except to note that in the *Investigations* Husserl was not pursuing an objectivist account of logic as his exclusive aim. Husserl recognised the essential 'two-sidedness' of the acts which are aimed at logical meanings, on the one hand there are the laws governing the meanings themselves, but there are also the judgings, inferrings, and other acts, which are oriented towards the subjective side, that need to be treated by phenomenology (*Formal and Transcendental Logic* §8). In other words, the aim of phenomenology is to study the essential *correlations* between acts of knowing and the objects known, something that became clearer to Husserl after he wrote the *Investigations*.

The structure of the six Investigations

While the *Prolegomena* was written with a single purpose and, by Husserl's standards, remains a relatively straightforward piece of writing, the six Investigations of the second volume at first sight seem much less unified and coherent, with most commentators testifying to their uneven, fragmentary and sprawling character. Husserl himself warned that the work could not be considered as a finished exposition of scientific results or as 'one book or work in the literary sense' (LI, Findlay I: 5; Hua XVIII: 11), but rather should be seen as a 'systematically bound chain of investigations', 'a series of analytical investigations' (eine Reihe analyticher Untersuchungen, LI, Findlay I: 173; Hua XIX/1: 20), which would need further elaboration through 'resolute cooperation among a generation of research-workers' (LI, Findlay I: 171; Hua XIX/1: 16–17). It had to be seen as a living development of philosophical ideas, a journal of philosophical discovery.

A recent commentator, Kit Fine, has remarked (referring specifically to the Third Investigation but applicable with justice to the whole): 'Such is the range of the work that it is with a growing sense of excitement that one discovers the riches that lie beneath its rough and seemingly impenetrable exterior'.⁶⁰ David Bell has identified a threefold structure to the work, with the *Prolegomena* establishing the need for ideal unities in logic and knowledge generally, the first four Investigations clarifying issues of linguistics, semantics, formal ontology and formal grammar, while the final two Investigations were properly phenomenological, studying the nature of conscious acts and their claim to knowledge and truth.⁶¹ The *Investigations*, then, is more united than its outward appearance suggests, and rich in sophisticated philosophical insights, albeit embedded in Husserl's wordy and labyrinthine presentation. In part, the progressive structure of the work is obscured by Husserl's tendency to enter into exhaustive critiques of other positions in order to arrive at his own view in circuitous manner, and then set out again circumspectly and tentatively, warning always of the need for further analyses and distinctions to be borne in mind.⁶² One always has the sense of philosophising in progress rather than of a completed system, of listening to a great mind communing with itself. According to the author, the *Investigations* proceed by lifting the reader from lower to higher levels, moving in a 'zig-zag' manner (*im Zickzack*, LI, Findlay I: 175; Hua XIX/1: 22), forced to employ concepts that would be clarified later in a reflective 'turning back' (*zurückkehren*). Indeed, Husserl's whole approach has the character of such 'backward questioning' (*Rückfragen*).

The six lengthy Investigations of the second volume are concerned with analysing elements of the form of knowledge, such notions as meaning, concept, proposition, truth (LI Prol. §71, Findlay I: 159-60; Hua XVIII: 236-7). Husserl begins with the general structure of signs and meaningful expressions; then moves to analyse the status of universals (which he calls species) and the nature of abstraction; followed by a treatise on the laws governing the relations of dependence between parts and wholes; another mini-treatise on the relation between logic and grammar as a priori disciplines; the nature of consciousness, including the meaning of intentionality and the ambiguities surrounding the associated notions of content, object, presentation, and finally the nature of the identifying syntheses involved in judgement and its relation to truth. Along the way, he offers sharp criticisms of prevailing views, including a critique of J. S. Mill's account of connotation and denotation, a refutation of sensationalism, a rebuttal of empiricist theories of abstraction (Locke, Berkeley, Hume, Mill), a sharpened definition of the *a priori* including a new distinction between the formal (analytic) and material (synthetic) a priori which claims to be an advance on Kant, and careful discussions of Bolzano, Mill, Brentano and others, in terms of their views on logic, psychology and the nature of judgements and their contents.

A basic assumption of Husserl's understanding of knowledge is that knowledge is essentially understood and communicated in the form of expressive statements, where a statement is a unified whole with a single, possibly complex, meaning, that says something *about* something. It refers to an object (whether an individual thing or a state of affairs) through a 'sense' or 'meaning' (Husserl employs both *Sinn* and *Bedeutung* for 'meaning'). Of course, in the *Logical Investigations*, and indeed since 1891, Husserl was fully aware of Frege's distinction between *Sinn* ('sense') and *Bedeutung* ('reference' or 'meaning'), but he does not observe it since it is at variance with ordinary German usage. Husserl prefers to use the terms *Sinn*, *Bedeutung* and also *Meinung* more or less as equivalent notions (see LI II §2, Findlay I: 240; Hua XIX/1: 115) although later, in *Ideas* I §124, he will restrict '*Bedeutung*' to linguistic meaning only and use '*Sinn*' more broadly to include all meanings, including non-conceptual contents (e.g., perceptual sense). Both Frege and Husserl agree that the *sense* of a statement is an ideal unity not affected by the psychic act grasping it, nor by the psychic stuff (mental imagery, feelings, and so on) that accompanies the psychological episode. Logic (and mathematics and the other formal sciences) is concerned to process the laws governing these abstract ideal unities which Husserl characterises as having 'being in itself' (*An-sich-sein*, translated by Findlay as 'intrinsic being') as unities in manifolds (Findlay I: 169; Hua XIX/1: 12) as well as a 'being for' (*Für-sich-sein*) the thinker. In themselves, they are pure identities, remaining unchanged irrespective of their being counted, judged, or otherwise apprehended in psychic acts. As Husserl says in the *Prolegomena*, truths are what they are irrespective of whether humans grasp them at all (*Prol.* §65, Findlay I: 150; Hua XVIII: 240). Despite the fact that the objects of logic are ideal and transtemporal, nevertheless, they must also be accessible and graspable by the human mind, as Husserl later explains:

... it is unthinkable that such ideal objects could not be apprehended in appropriate subjective psychic acts and experiences.⁶³

We can imagine any such ideal meaning or *Sinn* being entertained or judged or considered in some way by a mind. It is simply a fact that these ideal meanings (*Sinne*) present themselves to us as something that is subjectively grasped: '... ideal objects confront us as subjectively produced formations in the lived experiencing and doing of the forming'.⁶⁴ This is their 'beingfor'. They are always truths *for* some possible mind, subjective acts are 'constituting acts' for these ideal objectivities. The question then becomes: how are these hidden psychic experiences *correlated* to the 'idealities'? Frege had answered in a naïve manner: our minds simply *grasp* ideal thoughts. But Husserl wants to give an account that does justice to the essential twosidedness of our cognitive achievements by analysing the structure of this expressing and grasping of meaning.

For Husserl, the primary interest of what he calls 'phenomenology' in the second volume of the *Investigations* does not lie in identifying the ideal nature of the idealities (numbers, logical entities, pure meanings) that are the focus of mathematics, logic, semantics and other sciences. Rather, Husserl is primarily interested in the mental acts *correlated* with these ideal objectivities and the laws governing these essential intentional correlations (see Hua XXIV: 172). Initially, he tended to understand these acts as psychological realities which instantiate pure essences in a kind of token/ type relation. To get at their essential natures he initially thought he could use Brentanian descriptive psychology. After 1901 Husserl realised he was mistaken to characterise in psychological terms what were the essences of cognitive acts and their correlative objects. Psychic acts, like physical objects, are parts of the natural world and are governed by temporal relations, and other features of our contingent universe. The essential structures of acts of cognition, on the other hand, were not parts of the world, and hence could not be treated by psychology. Thus it was some four years after the *Investigations*, as Husserl recalled in the *Crisis* §70 (Carr: 243; Hua VI: 246), that he arrived at self-consciousness regarding the true nature of the phenomenological method uncovered in 1901. He then realised that pure or transcendental phenomenology has essentially to replace descriptive psychology and that real/ideal distinction had to be replaced by a purely essential study of the noetic/noematic structure of intentional experiences. Husserl thinks the intentional acts themselves can be isolated as true for all possible consciousnesses. Phenomenology does not discuss states of animals, but rather perceptions *as such*, willings *as such*, just as pure arithmetic deals with pure number and geometry deals with pure shapes, and not actual shapes as encountered in nature. For Husserl, it was the task of phenomenology to delineate in advance the possible forms of each intentional act and its limits. This is why phenomenology despite its descriptive rigour is actually an *a priori* science, not an empirical one.

Husserl is aware that one cannot just assume one has a grasp of the *concepts* just because one understands the *meanings* of the words that express the concepts. There are concealed ambiguities in the linguistic expressions, and so it is necessary to fix our concepts through clear self-sustaining intuitions:

We desire to render self-evident in fully-fledged intuitions that what is here given in actually performed abstractions is what the word-meanings in our expression of the law really and truly stand for.

(LI, Findlay I: 168; Hua XIX/1: 10)

The aim is to achieve clarity and distinctness in concepts by making whatever appropriate disambiguations as can be brought to intuitive clarity.

For Husserl, questions concerning the relation of the objective to the subjective acts of the mind, questions of the meaning of the so-called *adequatio rei ad intellectus*, cannot be separated from issues in pure logic. Such questions as how these ideal objectivities come to be presented to the mind and grasped by it and so end up becoming something subjective must be addressed:

How can the ideality of the universal *qua* concept or law enter the flux of real mental states and become an epistemic possession of the thinking person?

(LI, Intro. §2, Findlay I: 169; Hua XIX/1: 13)

How is there an *adequatio rei et intellectus* in the case of the relation between ideal concepts and human psychical acts? We have to pass over from a naïve performance of acts to an *attitude of reflection (Einstellung der Reflexion)*. Husserl wants to discover the *a priori* relations between meaning and its expression, and he sets out the basis of this in the First Investigation.

The First Investigation: the nature of meaningful expression

Although, at first glance, the First Investigation appears to be an essay on signs (Zeichen), clearly influenced by Mill's Logic (LI I §16), and by linguistic studies by Brentanists such as Twardowski and Anton Marty, in fact Husserl intended it to have a 'merely preparatory character' (LI, Findlay I: 6-7; Hua XVIII: 13), aiming correctly to identify the elements of the meaning function (Bedeutungsfunktion) in conscious life. Although it contains discussions of proper names, common names, collective terms, demonstratives, speech acts, and so on, Husserl's interest was not in philosophy of language as such, but rather in specifying the structure of meaningful assertion, separating out the acts which go to make up the intentional expression and fulfilment of meaning. In this First Investigation (§9) Husserl develops his crucial distinction (held from early in his career) between meaning-intending and meaning-fulfilling acts and the 'unity of coincidence' or 'covering' (Deckungseinheit) between meant and fulfilled senses in those situations where a concrete intuition fills out the intending sense. As Husserl's conception of signification became more nuanced, this Investigation was considerably reworked in the Second Edition.

Husserl begins from Mill's claim that, since all thought is expressed in language, a study of linguistic forms is a prerequisite to the clarification of logical forms. He departs from Mill, however, in his account of the manner in which proper names ('Schulze', 'Socrates') signify their referents. Drawing on and refining some traditional distinctions in then current semantics (e.g., Marty), Husserl distinguishes between the function of an expression to *intimate (die kundgebende Funktion)* something to someone, and its expression of an ideal *sense* or *meaning (Sinn* or *Bedeutung)* which is the same in different performances of the assertion or in acts of understanding it. Moreover, normally an act of expressing is directed *beyond* its meaning to its associated object or objectivity (*zugehörige Gegenständlichkeit*), through a specific manner of intentional reference (*intentionale Beziehung*). Finally, Husserl has a brief introductory discussion of the different kinds of 'objectivities' to which things can be directed, distinguishing between simple and categorial objectivities (LI I §12) – the focus of the Sixth Investigation.

Husserl begins by distinguishing between signs functioning as *indications* (*Anzeichen*), which operate through linking one *extant* thing with another without a mediating meaning, e.g., smoke indicating fire, flag is a sign of a nation, a brand that marks a slave, chalk that marks out a house, and *expressions* (*die Ausdrücke*), in his specific sense, that require the mediation of a meaning or sense and refer to some object regardless of its existential status. As Husserl says: 'It is part of the notion of an expression to have a meaning' (LI I $\S15$). A meaningless expression, e.g., 'abracadabra', would not be an expression at all. This is not meant to be an exhaustive treatment

of signs and signification, but merely a distinction between different *functions* of signs. Husserl is interested in the mental act of meaningful *expression*, irrespective of whether it is uttered, written, or simply thought to oneself. His account is a semantics of speaker intention. Communication is not Husserl's concern, because, for him, logic is concerned only with the *expression* of ideal meanings. The pragmatics of communication or reception of meaning is a secondary matter, a concern for the philosopher of language.

An expression may have a set of physical sounds or written marks or merely imagined utterance, but what makes it an *expression* (and not just a reproduction of sounds like a parrot) is the mental state (or act) that 'enlivens' or 'ensouls' it. Normally, in any expressive act, the inner fused unity (*eine innig verschmolzene Einheit*, LI I §10) of sign and thing signified, of word and object, is experienced. Our interest usually focuses on the object intended and not on either the meaning or any associated verbal chain (unless our interest is, let us say, in assonance or in grammar, e.g., if someone says, 'I done that', the speaker's attention may be directed at confirming having done something and not towards the poor grammatical form). This is not to say that the thought exists apart from its expression. Thoughts *come to form* in a linguistic way.

There are many other features entwined with the act of expression. Husserl further distinguishes between what expression 'shows forth', conveys, or intimates (kundgibt) and what it means, and between what it means and what object it names (LI I §6). Typically, Husserl recognises the inherent complexities (even if he here does not focus on them), for instance, in communication, an expression both expresses a meaning and indicates something to the hearer. An expression functions as an indication when, for example, it indicates to the hearer the meaning intentions of the speaker (LI I §7). Through this intimating function other aspects of the communicative situation may be picked up, e.g., that the speaker is angry or is making a judgement. Expressions, then, have a communicative function in relation to others. A speaker endows a certain word-chain with a sense that can be understood by a hearer, with certain 'sense-giving acts' (sinnverleihende Akte, LI I §7). This, Husserl says, makes mental commerce (geistige Verkehr) possible. But besides their function in communication with others, expressions play a role in our individual, solitary, mental life, where communicating has no role, and therefore the act of meaning (Akt des Bedeutens) must be strictly distinguished from its 'intimation achievement' (die kundgebende Leistung, LI I §8). When an expression is articulated it normally directs interest away from itself towards what it intends to convey, but this directing away is not a form of indicating (§8). In silent soliloquy we may use imagined words rather than spoken words, we may even imagine the sounds of the words. Here we express our meanings although we do not intimate them to others. The expression of meaning, therefore, remains an issue even for the solitary thinker (LI I §8), where no indicative function is required.

Husserl distinguishes between expressions which function solely to *name* (*nennen*) and other more complicated forms, which Husserl calls 'predicatively formed complexes' which are essentially predicates. Husserl thinks that the referential power of proper names has been misunderstood by Mill, who views a proper name as non-connotative and directly *denoting* its 'subject' (in Mill's terminology) without the mediation of an abstract meaning (or 'attribute').⁶⁵ Names do pick out their objects directly, but not through *indication*, rather they have an expressive function that allows the name to *mean* the object in different sentential formations.

According to Husserl's fundamental distinction between meaning intentions and meaning fulfilments, 'meaning intentions' (*Bedeutungsintentionen*) or 'meaning-conferring acts' (*die bedeutungsverleihenden Akte*) include all those acts involved in *confirming*, *corroborating*, *illustrating* (*erfüllen*, *bestätigen*, *bekräftigen*, *illustrieren*, LI I §9). An expression has to be consciously endowed with meaning to be a vehicle of meaning. The content or meaning of the thought expressed is furthermore an ideal unity, e.g., 'three perpendiculars of a triangle intersect in a point' (LI I §11). This meaning is something identical (*das Identische*), whose precise identity is preserved in repetition (*Wiederholung*) of the expression. In assertion, we are asserting that state of affairs 'holds' or 'obtains'. We commit ourselves to the 'objective validity' of the state of affairs, even though the state of affairs is what it is, whether we maintain its validity or not. It is a 'validity-unity in itself' (*eine Geltungseinheit an sich*). We judge that the state of affairs obtains because we see it to be so.

Every expression says something 'of' or 'about' (*über*) something (LI I §11), but the object does not usually coincide with the meaning. Different names, e.g., 'victor of Jena', 'vanquished at Waterloo', or 'London', 'Londres', can refer to the same object (Napoleon, the city of London). Expressions may have different meanings but the same objective reference. Similarly, expressions with the same meaning may have different objective references, e.g., the expression 'horse' as applied to different horses, to both the individual 'Bucephalus' and to the type, the carthorse (§12). Proper names are 'equivocal' for Husserl in that they can name something different only if they mean something different, they have multiple senses (§15). On the other hand, general names, words like 'horse' can have many different values but have the one meaning (§15). In general, Husserl wants to distinguish between the *meaning* (*Bedeutung*) of an expression and its power to *name*, that is, to direct itself to something objective (*ein Gegenständliches*). An expression names its object *through* (*mittels*) its meaning (LI I §13).

In the First Investigation, Husserl distinguishes between objective expressions and those 'subjective' expressions whose meaning shifts with the occasion. This broad category, which includes pronouns ('I', 'you'), demonstratives ('this', 'that'), temporal adverbs like 'now', he terms 'essentially occasional expressions' (*wesentlich okkasionelle Ausdrücke*, LI I §26). These depend on the context for their specific meaning and yet also seem to have a fixed sense

of their own. 'Now' means 'the present time'; 'I' means 'the person who is currently speaking'. But Husserl recognises that one cannot simply replace the word 'I' with 'the person who is currently speaking' in all contexts and preserve meaning (LI I §26). The term, however, is not wholly equivocal, but has layered elements, one of which depends on the context in which it is used (the 'indicated meaning'), and the other meaning which shows an act of indicating or pointing is being performed (the 'indicative meaning', LI I §26; Findlay I: 219; Hua XIX/1: 89).⁶⁶ In the First Edition, indexicals are treated as non-normal or derivative forms of meaning (unlike words like 'lion'), which could, at least in theory, be replaced by non-indexical expressions (LI I §28), although Husserl recognises this may be practically impossible. Husserl saw the need to broaden this account in the Sixth Investigation (LI VI §5), so that indexicals stand at the basis of all empirical predication, a change of mind Husserl notes in the Second Edition (LI, Findlay I: 7; Hua XVIII: 13). In a sense, every statement must be located in a context before its precise meaning can be understood (e.g., referring to the 'birth of Christ', or 'the sun' requires a certain deixis; see Husserl's notes, Hua XIX/2: 817). In 1929, in Formal and Transcendental Logic (§80; Hua XVII: 207), Husserl says that in the First Edition of the Investigations he had not understood the 'horizonal intentionality' at work whereby the understanding of a statement requires attention to its horizoning context. A formal system needs the support of context-relative elements.

Husserl also discusses another kind of expression where the mental act the speaker is performing is announced in the expression itself, for example, in speech acts where the speaker promises, wishes, and so on. Husserl here identifies the class of speech acts, subsequently studied by his student, Adolf Reinach. Interest in speech acts was revived by John Austin and systematised by John Searle.⁶⁷

An important part of the discussion in the First Investigation concerns Husserl's vigorous attempts to distinguish between the meaning of an expression and the various accompanying images, feelings and illustrations that intertwine with it. Husserl's aim is to distinguish the logical content of meaning from all accompanying psychological content (he remarks that even Descartes had distinguished the imaginative representation of a chiliagon from its conceptual meaning, LI I §18). A central issue of this Investigation is the distinction between expressions based on intuition and those which function through some kind of symbolisation. Seeing something in the case of perceiving an object and seeing it symbolically are different act functions for Husserl (LI I §20). Husserl was not satisfied with his account of expression in this Investigation and his advances in the Sixth Investigation forced him to rethink the very basis of his account in the years after 1901. His 1908 lectures on meaning, for example, offer the basis for a revised account. which has a more sophisticated treatment of the relation between expressive act, meaning and empty or filled intention. In later years, Husserl would constantly return to the essential nature of meaning intending in its various forms.

The Second Investigation: abstraction and the grasp of universals

The Second Investigation treats of the nature of universal meanings or *species* (*Spezies*) as Husserl calls them. Understanding the true nature of abstraction is important for the foundations of logic, since logic utilises the crucial distinction between *individual* and *general* or *universal* objects (*allgemeine Gegenstände*). Husserl wants to develop empiricism by defending the need to recognise universal objects also, a view which is best understood as a kind of Aristotelianism. Some critics, however, accused Husserl of Platonism. In a remark added in the Second Edition, he concedes that his view may be termed *idealism* (LI II, Findlay I: 238; Hua XIX/1: 112), understood as a purely epistemological doctrine, which recognises the proper domain of the ideal (*das Ideale*) against psychologism. Husserl in fact thinks that the 'excesses of extreme conceptual realism' (*Begriffsrealismus*, LI II §2) have led philosophers to challenge not just the reality of general concepts but also their 'objectivity'.

In this Investigation Husserl offers primarily a historical critique of Locke, Berkeley, Hume and of abstractionist representationalism in general, with the overall aim of understanding the relation between meaning as an ideal unity and the act of meaning (das Bedeuten) expressing it. In the Prolegomena Husserl had already established that meanings are ideal unities, now he wants to specify the relation between this ideal unity of meaning and the expression which 'means' it, the significant or 'meaning consciousness' (Bedeutungsbewusstsein). Husserl's claim (developed from Lotze) in the First Edition is that this relation is the same as that between species and individuals. Indeed, for Husserl, meaning is a kind of 'species' (Spezies) which is instantiated in a particular act. The traditional account says that we intend the species (e.g., 'horse' as opposed to an individual horse) by abstraction from the individual, but there are different accounts of the nature of this abstraction. One view he rejects is that abstraction is a kind of selective attention on one aspect of an object. In opposition to this view, Husserl wants to develop a proper concept of abstraction, freed from the distortions of the modern philosophical and psychological tradition. He calls this 'ideation' but revises his views in the Second Edition since, in Ideas I, Husserl had developed a new account of ideation now understood as essential seeing or essence inspection (Wesenserschauung, Ideas I §3).

For Husserl, the difference between an act that intends an individual and one that intends the species becomes clear in reflecting on the manner in which evidence is fulfilled for such presentations (LI II §1). Husserl insists that intending the species is essentially different in kind from intending the individual *qua* individual. In both acts, the same concrete object (*das Konkretum*) may be given, with the same sense contents interpreted in exactly the same way (LI II §1), but we *mean* 'red' not 'red house', the species not the individual. In the act of individual reference, we intend this thing or property or part of the thing, whereas in the specific act we intend the species, that is, we intend not the thing or a property understood in the here and now, but rather the 'content' (*Inhalt*), the 'idea' (*die Idee*), that is 'red' as opposed to the individual 'red-moment' (LI II §1). As Husserl adds in the Second Edition (referring forward to the Sixth Investigation), this specific act is a *founded* (*fundierte*) act, involving a new 'mode of apprehension' (*Auffassungsweise*), which sets the species before us as a general object. When we mean the species we perform a distinct act which is oriented towards the species as such and not towards the individual thing or part.

Husserl understands this relation between general and individual as that between *species* and individual *instance* (*Einzelfall* §1), between 'red' in general and this red 'moment' of an object. Husserl goes on to insist (§2) on an important difference between individual singular items, *Einzelheiten* (things of experience) and *specific singulars* (e.g., the number 2). He makes a parallel distinction between individual and specific universals, whereby individual universal judgements, e.g., 'all men are mortal', are distinguished from specific universal judgements, e.g., 'all propositions of logic are *a priori*'.

Husserl offers deep criticisms of the prevailing empiricist and nominalist accounts of the process by which universals are distinguished in our knowledge. Husserl ends by introducing his notions of abstract, dependent parts and concrete, independent parts, as a way of beginning to understand the true nature of abstraction in a phenomenological manner. This leads him to the theory of parts and wholes.

The Third Logical Investigation - parts and wholes

Husserl himself stressed the importance of the Third Investigation as offering the proper way into his thought, and, in his 1913 revision, was already lamenting its neglect. This Investigation sketches a 'pure theory of wholes and parts', called, in the Second Edition, 'formal ontology' (LI III, Findlay II: 3; Hua XIX/1: 228), inaugurating a discipline now known as *mereology*. With the specific view of clarifying the relations holding between the parts of meaningful acts of *expression* (in the Fifth and Sixth Investigations), Husserl here attempts to specify the *a priori* possibilities inherent in partwhole relations in general, i.e., the precise forms part-whole relations can take in advance of all empirical instances (LI III §1).

Husserl is interested in the different ways in which something can be a part, and the laws governing the relation of parts to the whole, and of parts to other parts. Every object either is or can be a part. Wholes can be parts of larger wholes, and parts can have parts. Not all parts can be wholes however. Wholes and parts stand in various relations of *dependency* (*Unselbstständigkeit*) such that one part is *founded* on another. Husserl gives a strict sense to foundation (a notion already present in Meinong): when part **A** cannot be presented without a part **B**, **A** is said to be founded on **B** (LI III §14).

Husserl's account recapitulates his studies of the early 1890s. His starting point (LI III §3) is his mentor Carl Stumpf's work on the relations between parts and wholes in psychological acts, specifically in relation to sensory concepts such as colour and extension, or the quality and intensity of sounds. Stumpf situated his discussion of part/whole relations specifically in relation to *psychology*, whereas Husserl wants to formalise to a pure theory of wholes and parts in the most general sense. Stumpf was influenced by Brentano's reflections on the subject in his lectures on *Descriptive Psychology*,⁶⁸ and Husserl also acknowledges the independent investigations of Christian von Ehrenfels on 'form qualities' (*Gestaltqualitäten*, LI III §4), where items are grouped in specific ways, e.g., flocks, points seen against a background, and so on.⁶⁹ Husserl even discovers whole/part analysis in the 'phenomenology of inner experience' of George Berkeley in his critique of Locke (LI III §2).

Husserl begins somewhat misleadingly by discussing the different ways parts are presented and are differentiated in experience, but in fact wants a formal analysis of the manner in which parts and wholes of any objects whatsoever cohere or co-exist together. Anything that can be distinguished in an object is a part (Teil). Parts may be divided into 'independent' (selbstständig) and 'dependent' (unselbtständig), according as they can stand on their own or whether they require inherence in the whole of which they are a part. A part may be independently presented, e.g., head of a horse, and these Husserl terms 'pieces' (Stücke, LI III §2), e.g., the segments of an orange which can stand apart from one another and from the whole. But some parts are inseparable (untrennbar), e.g., colour and extension, and these Husserl calls 'moments' and which he sometimes characterises as 'abstract' parts in that they can only appear in the context of a larger whole. A dependent moment is one that depends, or, in Husserl's language, is founded on another whole or part. Thus, to give an example, Husserl will constantly repeat, the act-quality of a conscious experience is an abstract moment of the act (LI III §20), unthinkable detached from all matter. Of course, one can isolate parts within parts, so that the whole notions of dependence and independence are relativised (LI III §13). Husserl goes on to lay down six laws concerning parts and wholes (LI III §14), which have since been modified and expanded in a whole formal mereological theory. These laws include, for example, the law that: if a is dependent part of a whole W then it is also a dependent part of any other whole that has W as a part. In later writings (e.g., Experience and Judgement and Formal and Transcendental Logic), Husserl returns to part-whole relations in a somewhat different analysis but his part-whole analysis always remains central to his philosophy.

The Fourth Investigation: formal grammar

The Fourth Investigation, extensively revised and expanded in the Second Edition, is a study of what Husserl terms 'pure grammar' (Second Edition: 'pure logical grammar'), i.e., of the formal laws governing the combining or binding of meanings (*Bedeutungen*) into a senseful unity rather than simply yielding a nonsensical string of words, and is, generally speaking, an application of his part-whole theory to the field of semantics. He speaks of the 'pure theory of forms of meanings' (*die reine Formenlehre der Bedeutungen*, LI IV §14). The aim is to provide a pure morphology of meaning that lays the basis by providing possible forms of logical judgements, whose objective validity is the focus of formal logic proper. Husserl is explicitly reviving the old idea of an *a priori* grammar against both the psychological interpretations of grammar dominant in his day and the empirical theorists who were imprisoned in a false paradigm (e.g., assuming Latin grammar as the paradigm, LI IV §14).

Just as simple objects can be combined to produce complex objects, *simple* meanings combine to produce *complex* meanings (LI IV §2). Moreover, meaning-parts need not mirror parts of the object, and vice versa. Meaning has its own parts and wholes. Husserl maintains that all combinations are governed by laws; his aim is to find the least number of independent elementary laws (LI IV \$13). It must be possible to identify the rules of all such possible valid combinations a priori, combinations that produce well-formed expressions as opposed to nonsense (such as 'This careless is green', LI IV §10). Husserl famously distinguished (LI I §15 and LI IV §12) between nonsense (Unsinn) and countersense or absurdity (Widersinn). The concept of 'square circle' is not senseless or non-sensical, but constitutes an absurdity, a contradiction in terms, a 'counter-sense' that cannot be realised. Formal grammar, on Husserl's account, can eliminate only nonsense not absurdity and is therefore not yet formal logic in the sense of specifying what can be objectively valid.⁷⁰ In later writings, notably the Formal and Transcendental Logic and Experience and Judgment, Husserl continued to maintain that formal grammar provided the bedrock rules for meaningfulness which made possible formal logic, and is the basis for both the logic of inference (Konsequenzlogik) and what Husserl calls the 'logic of truth'. He is more careful in later writings to emphasise that he is dealing with formal combinations of meanings (e.g., 'A and B not if') rather than material combinations of meanings (e.g., 'round square'), whereas in the Fourth Investigation he tends misleadingly to employ examples drawn from the material sphere.⁷¹ The laws of formal meaning are purely analytic laws as opposed to synthetic a priori laws which govern such areas as geometry or mechanics. The core of Husserl's analysis is his use of a traditional distinction (but specifically developed by Anton Marty) between syncategorematic words (e.g., words like 'but', 'and' 'to', 'if'), and categorematic words, e.g., nouns, verbs (but not complete

expressions) and his analysis of these in terms of independence and dependence relations. Husserl treats *syncategorematic* expressions as meaningful but dependent, incomplete parts of wholes, which in this case are well-formed expressions which are complete or 'closed' (*geschlossen*). Verbal parts can be distinguished in terms of those that are separately meaningful (like particles, e.g., 'bi-' as in 'bi-sexual') or meaningless ('bi' as in 'bite'). Husserl focuses on proper names and the manner in which they name the object in a 'single ray'. The formal theory of meanings will lay down the formal laws that regulate how adjectives can become substantives, how a subject can shift to the predicate position and so on, and other rules of combination and 'modification' (a concept drawn from Twardowski, who studied the manner certain adjectives modify the noun, e.g., a *false friend* is not a *friend* at all.

This Investigation had a profound influence on the work of the linguist Roman Jakobson (1896–1982), especially on his notion of phonemes as complex unities.⁷² It also influenced the Polish logician Stanislaw Lesniewski (1886–1939) in his account of categorial grammar, and indeed finds echoes in Noam Chomsky's project of a 'universal grammar' (a term Husserl himself invokes with approval, LI IV §14). For Husserl, however, the meaning-fulness of linguistic combinations is distinct from the structural laws governing conscious acts and their contents, to which he turns in the Fifth Investigation.

The Fifth Investigation: intentional experiences and their contents

The Fifth Logical Investigation, subtitled 'International Experiences and Their "Contents"' is Husserl's attempt to sort out ambiguities in Brentano's descriptive psychological analysis of conscious acts, their contents and objects (in the Second Edition, these are restricted to 'pure immanence'). Husserl begins by specifying what he means by 'consciousness', bracketing discussion of the relation of conscious acts to an ego, and focusing exclusively on the intentional character of conscious experiences deriving from Brentano's rediscovery of intentionality. However, Husserl regards Brentano's characterisation of intentionality as misleading and inadequate, trapped inside the old Cartesian dualism of subject and object and with all the problems inherent in that representationalist account. Under the notion of 'objectifying act' he offers a more precise account of what Brentano called 'presentation', and goes on to address what he calls 'cardinal problem of phenomenology', namely, the doctrine of judgement (LI, Findlay I: 7; Hua XVIII: 14), which is further treated in the Sixth Investigation. Husserl is especially critical of the many unresolved ambiguities in Brentano's foundational concept of 'presentation' (Vorstellung) and carefully differentiates between the many senses of the term (LI V §44), stressing however that logic must decide which meaning of 'presentation' is most appropriate for its own needs. Logic does not follow linguistic usage as logical definition is a kind of artifice (LI IV §3).

In *Psychology from an Empirical Standpoint* (1874), Brentano had held that all psychic acts are characterised by 'directedness' or 'aboutness':

Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) inexistence of an object, and what we might call, though not wholly unambiguously, reference to a content, direction towards an object (which is not to be understood here as meaning a thing), or immanent objectivity.⁷³

In a general sense, every psychic act intends an object, though not necessarily something existent. Husserl paraphrases: 'in perception something is perceived, in imagination, something imagined, in a statement something stated, in love something loved, in hate hated, in desire desired etc.' (LI V §10, Findlay II: 95; Hua XIX/1: 380). Brentano himself came to realise that his expression 'intentional inexistence', which he claimed he had used to express the concept of inherence or inesse of the Scholastics, had been misunderstood as a special kind of subsistence. In his later writings, he claimed he never intended to say that the intentional object is merely some kind of object in our minds, some purely immanent thing. Husserl rejects Brentano's attempt to distinguish between 'psychical' and 'physical' phenomena, but sees his discovery of intentionality as having independent value (LI V §9). Husserl is cautious about using Brentano's term 'act' without qualification, but, above all, wants to avoid misleading talk of 'immanent' objectivity. He insists that all objects of thought - including the objects of fantasy and memory - are mind-transcendent. Even when I am imagining something non-existent, e.g., if I am thinking of the mythical god Jupiter the God Jupiter is not *inside* my thought in any sense, it is not a real element or real part of the experience (LI V §11). Rather, even fictional objects are transcendent above our mental experiences; intentional experience always transcends itself towards the object, its character is a 'pointing beyond itself towards' (über sich hinausweisen) something.

Drawing on the older logical tradition, Husserl offers a new global distinction between the *matter* and the *quality* of intentional acts. Acts of different quality (judgings, wishings, questionings) may have the same matter. Not all our experiences are intentional in the sense of presenting something to our attention. According to Husserl, *sensations* in themselves are not intentional, they are not the object which we intend, rather they accompany the intentional act and fill it out. Sensations belong to the 'matter' (and are grasped as such only in reflection), whereas the act quality provides the form of the act.

With an eye to distinctions made by Brentano's followers, especially Kasimir Twardowski, Husserl goes on to develop the differences between the contents of experience and the properties of the mind-transcendent object. When I see an object, I only ever see it from one side, in a certain kind of light, from a certain angle and so on. As I walk around the box for example, I see different 'profiles' (*Abschattungen*) or 'aspects' of the box, and yet I know I am getting glimpses of the same object in the different perceptual acts. The same object is presenting itself to me in different modes. Husserl's distinction in the Fifth Investigation (LI V §17) between the object which is intended and the particular mode under which it is intended forms the basis for his later distinction between *noesis* and *noema* in *Ideas* I. Furthermore, Husserl regards it as an *a priori* law that physical objects are displayed in *Abschattungen*.

Whereas Brentano recognised only three basic classes of psychical acts (namely, presentations, judgements, and what he called 'phenomena of love and hate'), Husserl recognises myriad forms of intentional structure. He more carefully differentiates the fundamental structure of judgements in a manner opposed to Brentano, who had challenged the traditional notion of judgement as a synthesis of subject and predicate, and had interpreted the judgement 'the cat is black' as an asserting or positing of 'black cat'. Husserl denies that judgements can be treated as nominal acts, as simply naming complex states of affairs (LI V §17). We can, of course, turn a judgement into a nominal act, by nominalising the content of the judgement. This belongs as an a priori essential possibility to judgements (LI V §36). So, to the judgement 'the cat is black' corresponds the nominalisation 'the cat's being black' which can then function as the basis for further judgements. But this internal relation between judging and nominalising does not mean that they are essentially the same kind of act. Husserl, following Bolzano, declares judgements to be essentially different from presentations. Judgements assert something to be the case (LI V §33). A judgement articulates and specifies in a 'many-rayed act' the parts of the situation that a nominalising act presents in a 'single-rayed act', as Husserl puts it.74 The relation between presentation and judgement is not as described by Brentano.

Rather than operating with Brentano's simple and rather naïve distinction between the presenting act and presented content of an intention, or even using the broader notion of a 'nominal act', Husserl suggests that we ought to speak more generally of 'objectivating acts' (LI V §37) which include both the nominal and the judgemental act. Husserl thinks that the claim that all acts either are or are founded on objectifying acts is a more accurate reformulation of Brentano's basic law that all psychic acts are either presentations or founded on presentations. Husserl's clarification of the nature of presentation and judgement leads to his discussion of the manner in which these acts find intuitive fulfilment in the Sixth Investigation.

The Sixth Logical Investigation: towards the phenomenology of knowledge

The Sixth Investigation – by far the longest and most difficult – attempts to connect the previous analyses of the act of meaning to the notion of truth through a deeper exploration of the relations between the acts that intend

meaning and the various levels of possible fulfilment, as they feature in different kinds of conscious act, e.g., perceptions, imaginings, and acts of what Husserl calls 'signitive intention' where meanings are handled in a purely symbolic way without intuitive fullness. Husserl's target is knowledge and the connection with truth. In earlier Investigations Husserl had recognised a new class of categorial acts or acts of categorial intuition, founded on sensuous acts but with essentially different objects. The Sixth Investigation is the first full analysis of the nature of these categorial acts, including reviewing the relation of sensory matter to the content of the act as a whole. Husserl wants a 'phenomenology of the varying degrees of knowledge' (LI VI, Findlay II: 184; Hua XIX/2: 539), carefully discriminating between the many different senses in which something can be realised or fulfilled for us in an act of perception or imagination, the relation between concept and intuition, e.g., in the act of seeing a blackbird.

Husserl sees the paradigm case of a successful intentional act as an act where the meaning is fulfilled by the *presence* in intuition of the intended object with full 'bodily presence' (*Leibhaftigkeit*). Thus, when I actually see something before my eyes, I have a fulfilled intuition. Later, I can relive this intuition but it is now a memory, still oriented to the object, but not presented with the same presence or immediacy. In memory or in other forms of 'calling to mind' or 're-presenting' (*Vergegenwärtigung*) we still may have a full intuition of the object, but now no longer with the distinctive bodily presence that characterises perception. There are other forms of intending which are merely 'empty' (*Leermeinen*), e.g., when I use words in a casual way without really thinking about what I am saying, when I talk about something without really thinking about it and so on. Empty or 'signitive' intendings, of course, constitute the largest class of our conscious acts, and, from the beginning of his career, Husserl had been fascinated as to how these kinds of intentions can function as knowledge.

Husserl's interest in the manner in which meaning is expressed in different acts leads him to revise the account of meaning as species which was employed in the earlier Investigations. I can utter different sentences with different senses or meanings based on the same act of perceiving (LI VI §4). Furthermore, a listener can understand the meaning with enacting the act of perception or indeed re-enacting it in imagination. The listener can understand it as a *report* of my act of perceiving, i.e., 'he says that he sees a blackbird'. In the expression 'I see a blackbird' the sense or meaning of that expression is not carried by the perceptual act alone. For Husserl the *sense* of the statement can survive the elimination of the act of perception, in other words, I do not have actually to enact the act of seeing to grasp the meaning of the statement. The act of perception somehow anchors the meaning but does not embody it completely. This leads Husserl to revise his earlier discussion of 'essentially occasional expressions' (§5), recognising that meaning is not simply instantiated in an act, but that the act has its own specific form of intending where the meaning appears with its own mode of givenness which the instantiation model did not adequately handle.

According to Kant, our experience has two components: a receptive element of sensory intuition and an element of reflective conceptuality (which Kant called 'spontaneity'). But Kant explicitly denied that humans had the capacity to intuit concepts. Husserl agrees with Kant concerning the sensory matter of most of our concepts, but holds that in higher order intuitions we do have the capacity to intuit ideal 'categorial' entities, from the 'mixed category' of the concept of colour, to pure categories, and at the highest level, logical categories such as unity, plurality and existence. Husserl treats 'categorial intuition' (kategoriale Anschauung) as akin to a kind of perception. The first attempt to express it comes in the second section of the Sixth Investigation entitled 'Sense and Understanding' (§§40-66). Categorial intuition involves a broadening of the concepts of perception and intuition. According to Husserl my intuition of a 'state of affairs' (Sachverhalt), e.g., 'I see that the paper is white', involves categorial intuition, a complex intuition that something is the case. In a judgement of this kind I intuit what is going on, as it were. How is this 'being the case' intuited? Husserl agrees with Kant that being is not a predicate, that is, that the existing situation is not a property of the individual object (the white paper). Saying that something is does not give us an intuition of a new property in a manner similar to learning 'something is red'. But this shows for Husserl that assertion of the category of being does not involve grasping a property or the object itself. Nor does it emerge from reflecting on the act of consciousness as some had thought, rather the categorial structure belongs to the ideal structure of the object, to the objectivity as such. Categorial acts yield up the grasp of the pure categorial concepts, 'if ... then', 'and', 'or' and so on, which have no correlates in the objects of the perceptual acts themselves. For Husserl, moreover, categorial acts are *founded* on the sensory acts of perceiving, but do not reduce to them. For Husserl, categorial acts grasp states of affairs and in fact constitute them in the very categorial act. Thus it is not the case that I grasp sensuously the components of the judgement and synthesise them using some kind of subjective rules of the understanding as Kant suggests (according to Husserl's interpretation), rather we apprehend the state of affairs of which the non-sensuous categorial elements are necessary constituents.

In the course of this complex investigation Husserl outlines a new conception of truth, re-thinking the classical correspondence account. It was this discussion of truth which attracted the interest of Heidegger and others (e.g., Ernst Tugendhat), but unfortunately we cannot treat it further here.

The influence of the Logical Investigations

Although, as the young Heidegger recognised, the Logical Investigations did not have an immediate impact on mainstream philosophy in Germany, within a decade it was recognised as a major philosophical achievement by leading figures such as Paul Natorp, Wilhelm Dilthey, Wilhelm Wundt and Heinrich Rickert.⁷⁵ Husserl suspected that much of Meinong's work after 1901 owed a direct – but unacknowledged – debt to the *Investigations*, but Brentano ignored the work.

In particular, the Prolegomena was credited with refuting psychologism. In a 1905 study, the elder statesman of German philosophy, Wilhelm Dilthey praised Husserl's Investigations as 'epoch-making' for its use of description in epistemology.⁷⁶ The psychologist Wilhelm Wundt, too, accepted the Prolegomena's arguments against psychologism, but criticised Husserl's second volume as proposing an extreme 'logicism' and demanding a complete reform of psychology. Husserl rejected Wundt's criticism as a complete misunderstanding of the work, saying he neither advocated logicism (in Wundt's sense), nor said a word about the reform of psychology.⁷⁷ In line with the Neo-Kantian tradition in general, Paul Natorp had been an early critic of psychologism. Indeed, Husserl had written to Natorp in 1897 announcing that he was working on a book to dispel the 'subjective-psychologising tendency' from logic. Natorp reviewed the Prolegomena favourably in Kant Studien in 1901, portraying Husserl as broadening the essentially Kantian inquiry into the necessary conditions of the possibility of experience.⁷⁸ Natorp predicted that Husserl would move towards Kant as he came to overcome his naïve opposition between the empirical psychological realm and the realm of abstract idealities.⁷⁹ Husserl, however, always kept his distance from Neo-Kantianism, claiming that phenomenology was more radical.

As we have seen, in his Göttingen years (1901–16), Husserl attracted many brilliant students, e.g., Johannes Daubert (1877–1947), Moritz Geiger (1880–1937), Adolf Reinach (1883–1917), Max Scheler (1874–1928), Hedwig Conrad-Martius (1888–1966), Roman Ingarden and Edith Stein, all drawn to Husserl's new way of approaching logical and epistemological problems which broke with the tradition. Around 1909, the young Freiburg seminarian Martin Heidegger encountered the *Logical Investigations* and poured over the work without being certain what it was that fascinated him.⁸⁰ He later recalled:

... both volumes of Husserl's *Logical Investigations* lay on my desk in the theological seminary ever since my first semester there... I had learned from many references in philosophical periodicals that Husserl's thought was determined by Franz Brentano ... From Husserl's *Logical Investigations*, I expected a decisive aid in the questions stimulated by Brentano's dissertation.⁸¹

Heidegger himself initially began reading Husserl to understand Brentano's account of the nature of being and was drawn especially to the Fifth and Sixth Investigations, especially Husserl's original accounts of categorial

intuition and of truth. Heidegger saw in Husserl's account of categorial intuition not only a method for articulating the nature of the existential judgement but also the basis of a new way of thinking about the notion of truth and the meaning of being. Heidegger went on to read the *Investigations* in the seminars of Heinrich Rickert and Emil Lask, a young scholar who also worked on categorial intuition. Heidegger discussed the *Logical Investigations* in one of his first publications, a review of recent logical research published in 1912, where he recognises that Husserl had drawn out the theoretic incoherence of psychologism and its relativistic consequences. For Heidegger, Husserl had not only enlarged the scope of logic, but had made central the problematics of judgement and the nature of evidence.⁸² Indeed, it was Heidegger who, as Husserl's assistant at Freiburg from 1919, repeatedly urged Husserl to reprint the Sixth Investigation, to which Husserl finally agreed in 1920.

News of the Logical Investigations spread outside Germany also, being translated into Russian as early as 1909, which version had a major influence on Roman Jacobson's conception of a formal science of language. Through Roman Ingarden, who reviewed it in Polish, the Investigations played an important role in Polish philosophy, influencing Stanislaw Lesniewski's development of mereology, for instance. It was translated into Spanish in 1929. A French translation of the Second Edition appeared in three volumes between 1959 and 1963.83 but Husserl's influence on French philosophy had begun much earlier through the efforts of his earlier Göttingen students, Jean Héring and later through the writings of Emmanuel Levinas, Jean-Paul Sartre, Maurice Merleau-Ponty, Paul Ricoeur and Jacques Derrida, all of whom began their philosophical careers with critical studies of Husserl. Derrida, for instance, has acknowledged that his whole philosophical impetus arises out of his studies on Husserl, e.g., his study of Husserl's concept of genesis, written as a part of his doctoral research project in 1953-4.84 Since the publication of Derrida's influential interpretations and critique of Husserl's account of signs in the First Investigation, an argument has raged as to whether Derrida has misinterpreted - even wilfully distorted – Husserl's account.85

During his Freiburg years (1916–38), Husserl became a philosopher of international renown, in contact with prominent philosophers of his day, including Ernst Cassirer, Bertrand Russell, Rudolf Carnap, Charles Hartshorne and William Kneale, among others. Among his own brilliant Freiburg students were Oskar Becker (1889–1964) and Fritz Kaufmann (1891–1958). Husserl's phenomenology also had a stimulating influence on philosophers who later came to be associated with the Frankfurt School, including Herbert Marcuse, Hannah Arendt, Theodor Adorno and Max Horkheimer (the latter of whom both wrote dissertations on Husserl). Husserl of course has been a major influence on both Ernst Tugendhat's and Karl-Otto Apel's philosophies of language, and his work in the *Investigations* has been compared with the equally original breakthroughs of Ludwig Wittgenstein.

In contrast to the situation in continental Europe, the Logical Investigations was somewhat slower to gain recognition in the English-speaking world. Bertrand Russell wrote to Husserl on 19 April 1920 saying that he had taken a copy of his Logical Investigations with him to jail, with the intent of reviewing it for Mind, but the review never appeared. However, in 1924. Russell recognised the Logical Investigations as a 'monumental work', listing it alongside his own Principles of Mathematics (1903) and works by William James, Frege and G. E. Moore (who, incidentally, also admired Husserl's book).⁸⁶ for their efforts in the refutation of German idealism.⁸⁷ Indeed, as Findlay noted, the Logical Investigations have much in common with the practice of philosophy as understood by Bertrand Russell. Richard Rorty in his Philosophy and the Mirror of Nature has remarked: 'Russell joined Husserl in denouncing the psychologism which had infected the philosophy of mathematics, and announced that logic was the essence of philosophy.'88 Indeed, one can find many themes in the Logical Investigations which are also treated in analytic philosophy, e.g., Husserl offers his own version of a solution to the problem of definite descriptions, famously treated by Russell.89

Husserl himself visited England in 1922 intent on establishing relations with English philosophers (Husserl being the first German philosopher to visit England since the Great War). He delivered a number of lectures which were attended by Gilbert Ryle among others, but the lectures were not a success, despite his meeting well-known figures such as Broad, Stout and G. Dawes Hicks. The *Logical Investigations* has been discussed in relation to the history of analytic philosophy by Michael Dummett, David Bell and others.⁹⁰ The logician Kurt Gödel studied the *Logical Investigations* after 1959 and was especially impressed by the treatment of categorial intuition in the Sixth Investigation which he recommended to other logicians.⁹¹

The contemporary relevance of the Logical Investigations

The six Investigations stand as a vast resource of philosophical ideas, some tentatively sketched, others more confidently laid out. Of primary significance are Husserl's discussions of the meanings of key philosophical terms. He carefully differentiates between logical and psychological content, empty and filled intuitions, the difference between generalisation and formalisation, the meanings of signification and reference, the nature of nominal and categorial acts, and so on.

Husserl's *Prologemena* is still of interest for its original conception of the nature and scope of pure logic and its discussion of the self-refuting character of psychologism, relativism (including 'anthropologism'). Husserl's critique of psychologism later expanded to a wide-ranging critique of naturalism, specifically the 'naturalisation of consciousness', in his 1911 essay 'Philosophy as a Rigorous Science', and these anti-naturalist arguments are still relevant to the contemporary debate between naturalists (e.g., Quine, Dennett, Churchland) and anti-naturalists (e.g., Hilary Putnam, John McDowell, Robert Brandom). Indeed, Putnam regularly cites Husserl's critique of naturalism, especially as formulated in the *Crisis*, but which has its origins in the *Investigations*.

The *Investigations* are an important resource for discussions of consciousness and other issues discussed in contemporary philosophy of mind. In particular, Husserl's account of intentionality in the Fifth Investigation has been hugely influential, but his views on the nature of perceptual content are also important and relevant to the work of Peacocke and others. Husserl has been seen as a strong defender of the subjective point of view and the ineliminability of consciousness from any full account of the nature of knowledge, themes which have more recently been treated by John Searle, Colin McGinn, Thomas Nagel and others.⁹² Indeed, John Searle's account of intentionality strongly resembles Husserl's, although Searle himself denies any direct influence. Other contemporary philosophers, e.g., Peter Simons, Barry Smith, Kevin Mulligan, are interested in developing morely precisely the formal ontology or descriptive metaphysics of the *Investigations*.

The *Investigations* are also of crucial interest as a source text for anyone wishing to understand the nature of phenomenology as it was developed both by Husserl and by his followers. Heidegger's phenomenological writings of the period between 1919 and 1928 would not be comprehensible without a thorough understanding of Husserl's breakthrough work. As the meaning of the phenomenological tradition comes once more to be interrogated, a return to the *Investigations* to attempt to understand the precise nature of the phenomenology that appeared therein seems inevitable.

John N. Findlay's translation

Finally some words on the present translation. The publication of J. N. Findlay's translation of the *Investigations* helped to correct a view of Husserl which, up to 1970, had been based primarily on the availability of Gibson's translation of *Ideas* I. Findlay has produced a powerful and much admired translation, based on the Second Edition. In keeping with the nature of that edition, he does not usually indicate where the text departs from the First Edition. It is important to bear in mind that this (and subsequent editions up to the fourth) were the ones Husserl himself authorised and a critical edition did not appear in the Husserliana series until 1984, and thus was not available to Findlay.⁹³

Inevitably, given both the size of the book and the need to find suitable English terms to render Husserl's many technical distinctions and innovations, Findlay's translation has its limitations. There is some sloppiness, with words, phrases, and even whole sentences being omitted. Some footnotes have been dropped (e.g., LI IV §10; Hua XIX/1: 328), while others are incorporated into the main text. There are some unhappy construals (*Gehalt* as 'substance' rather than 'content'), some misunderstandings (e.g., ein Gewaltsreich rendered as 'tour de force' rather than 'act of violence', Hua XVIII: 13), but in the main, the translation is serviceable and the prose smooth, clear, even elegant. While a new translation is certainly desirable, it will take some years, and in the meantime, students of Husserl need something in their hands right now. Given the limitations of a reprint of this kind, I have corrected only the more egregious errors, and do not claim to have identified them all. Although not all agreed with the project of reprinting Findlay, nevertheless I must record my gratitude to the following Husserl scholars for their assistance: Rudolf Bernet, Iain Lyne, Sebastian Luft, Ullrich Melle, Kevin Mulligan, Karl Schuhmann, Peter Simons, Claire Ortiz Hill and Donn Welton.

DERMOT MORAN

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Notes

- 1 E. Husserl Logische Untersuchungen, 2 vols (Halle: Max Niemeyer, 1900–1). Four editions appeared in Husserl's lifetime: a revised Second Edition of the Prolegomena and first five Investigations in 1913, a revised edition of the Sixth Investigation in 1921, a Third Edition with minor changes in 1922, and a Fourth Edition in 1928. A critical edition, which includes Husserl's written emendations and additions to his own copies (Handexemplar), has appeared in the Husserliana series in two volumes: Volume XVIII, Logische Untersuchungen, Vol. I: Prolegomena zur reinen Logik, text of the First and Second Edition, ed. Elmar Holenstein (The Hague: Martinus Nijhoff, 1975), and Volume XIX, Logische Untersuchungen, Vol. II: Untersuchungen zur Phänomenologie und Theorie der Erkenntnis, in two volumes, ed. Ursula Panzer (Dordrecht: Kluwer, 1984). The only English translation is: Edmund Husserl, Logical Investigations, 2 volumes, trans. J. N. Findlay (London/New York: Routledge & Kegan Paul/Humanities Press, 1970). Findlay translates from the Second Edition. Hereafter, the Investigations will be cited as 'LI' followed by the relevant Investigation number, section number, volume and page number of the present Routledge edition; followed by volume number and page number of the Husserliana (abbreviated to 'Hua') edition of the German text.
- 2 Husserl had originally contracted with another publisher, Verlag Veit & Co., Leipzig, and indeed some sample copies had already been printed before Niemeyer took over. Husserl, in his *Selbstanzeige* ('Author's Report'), claims some copies were available from the end of November 1899 ('Selbstanzeige', *Vierteljahrschrift für wissenschaftliche Philosophie* 24 (1900), 511; reprinted Hua XVIII: 262), but Karl Schuhmann thinks it is unlikely that any copies were available to the author before May 1900. The book did not appear from Niemeyer until July 1900, and the Foreword is dated Halle, 21 May 1900. See K. Schuhmann, *Husserl-Chronik. Denk- und Lebensweg Edmund Husserls*, Husserliana Dokumente 1 (The Hague: Martinus Nijhoff, 1977), p. 61. Hereafter cited as '*Chronik*'.
- 3 While not offering a 'system of logic' Husserl hoped (in the First Edition) at least to be able to lay the ground-work for a 'future construction (Aufbau) of logic'.

see LI, Intro., §5; Hua XIX/1: 21 A edition. Findlay translates the emended Second Edition version, where Husserl says he hopes to lay the ground-work 'for a philosophical logic which will derive clearness from basic phenomenological sources' (Findlay I: 174).

- 4 See Edmund Husserl, 'Selbstanzeige', pp. 511–12, reprinted in Hua XVIII: 261– 2, trans. in Edmund Husserl, *Introduction to the Logical Investigations. A Draft* of a Preface to the Logical Investigations (1913), ed. Eugen Fink, trans. Philip Bossert and Curtis Peters (The Hague: Martinus Nijhoff, 1975), pp. 3–4. Hereafter cited as 'Draft Preface'.
- 5 Sigmund Freud, *Die Traumdeutung* (Leipzig/Vienna, 1899), now *Gesammelte Werke* vols 2–3 (London: Imago, 1952), new trans. by Joyce Crick, *The Interpretation of Dreams* (Oxford: Oxford University Press, 1999). This work first appeared in November 1899.
- 6 See Schuhmann, *Chronik*, p. 363. But Pitkin's version has been contested, see H. Spiegelberg, 'What William James Knew About Husserl. On the Credibility of Pitkin's Testimony', in Lester E. Embree (ed.), *Life-World and Consciousness. Essays for Aron Gurwitsch* (Evanston, IL: Northwestern University Press, 1972), pp. 407–22. It now seems likely that Pitkin never even began the translation.
- 7 Marvin Farber, *The Foundation of Phenomenology* (Albany, NY: SUNY Press, 1943).
- 8 Husserl, 'Task and Significance of the Logical Investigations', text taken from Husserl's 1925 lectures on Phänomenologische Psychologie, Hua IX (The Hague: Martinus Nijhoff, 1962), p. 20, trans. John Scanlon, Phenomenological Psychology. Lectures, Summer Semester 1925 (The Hague: Martinus Nijhoff, 1977), p. 14. Hereafter cited as 'Phenomenological Psychology'.
- 9 Husserl has various formulas to express the aim: 'a philosophical laying down of the foundations of pure logic' (*eine philosophische Grundlegung der reinen Logik*, Findlay I: 237; Hua XIX/1: 112), the laying down of the 'phenomenological foundations of pure logic' (*phänomenologische Fundamentierung der reinen Logik*, LI VI §34, Findlay II: 257; Hua XIX/2: 643).
- 10 Phenomenological Psychology, p. 20; Hua IX: 28.
- 11 Alexander Pfänder, *Phänomenologie des Wollens. Eine psychologische Analyse* (Leipzig: Johan Ambrosius Barth Verlagsbuchhandlung, 1900), 3rd edition reprinted in *Alexander Pfänders gesammelte Schriften*, Vol. 1 (Munich, 1963), the introduction to this work is translated in A. Pfänder, *Phenomenology of Willing and Motivation and Other Phaenomenologica*, trans. Herbert Spiegelberg (Evanston, IL: Northwestern University Press, 1967).
- 12 See also Husserl, Draft Preface, p. 32.
- 13 The critical edition is published in Husserliana, Volume XII, *Philosophie der Arithmetik. Mit ergänzenden Texten (1890–1901)*, ed. L. Eley (The Hague: Martinus Nijhoff, 1970).
- 14 Reprinted in E. Husserl, *Briefwechsel*, ed. Karl Schuhmann and Elizabeth Schuhmann. 10 vols (Dordrecht: Kluwer, 1994), Vol. VI, p. 282.
- 15 E. Husserl, Über den Begriff der Zahl, Psychologische Analysen, reprinted in Philosophie der Arithmetik: Mit ergänzenden Texten (1890–1901), op. cit.
- 16 Husserl, in his letter of 3 January 1905 to Brentano, says that he was not a typical ambitious lecturer who sought to publish extensively.
- 17 E. Husserl, 'Philosophie als strenge Wissenschaft', Logos 1 (1911), 289-341, now collected in Husserl, Aufsätze und Vorträge 1911-1921, ed. H. R. Sepp and Thomas Nenon, Hua XXV (Dordrecht: Kluwer, 1986), pp. 3-62, trans. as Philosophy as a Rigorous Science, in Quentin Lauer, Edmund Husserl. Phenomenology and the Crisis of Philosophy (New York: Harper & Row, 1964), pp. 71-147.

- 18 The critical edition is published in Husserliana Vol. III/1 as Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie. Book 1: Allgemeine Einführung in die reine Phänomenologie First part: Text der 1-3. Auflage, ed. Karl Schuhmann (The Hague: Martinus Nijhoff, 1977), trans. by F. Kersten as Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book (Dordrecht: Kluwer, 1983). Hereafter cited as 'Ideas I' followed by page number of English translation and Husserliana volume number and pagination of German.
- 19 E. Husserl, Zur Phänomenologie des inneren Zeitbewusstseins (1893-1917), ed. R. Boehm, Hua X (The Hague: Martinus Nijhoff, 1966; 2nd edn, 1969), trans. J. B. Brough, On the Phenomenology of the Consciousness of Internal Time, Collected Works IV (Dordrecht: Kluwer, 1990). Husserl expressed dissatisfaction with Heidegger's edition of these time lectures more or less from their publication.
- 20 Now Husserliana Vol. XVII: Edmund Husserl, Formale und transzendentale Logik. Versuch einer Kritik der logischen Vernunft. Mit ergänzenden Texten, ed. Paul Janssen (The Hague: Martinus Nijhoff, 1974), trans. by D. Cairns as Formal and Transcendental Logic (The Hague: Martinus Nijhoff, 1969).
- 21 E. Husserl, Méditations cartésiennes: introduction à la phénoménologie, trans. G. Peiffer and E. Levinas (Paris: Almand Colin, 1931). The German text was not published until 1950 as Cartesianische Meditationen und Pariser Vorträge, ed. Stephan Strasser, Husserliana I (The Hague: Martinus Nijhoff, 1950), trans. D. Cairns as Cartesian Meditations. An Introduction to Phenomenology (Dordrecht: Kluwer, 1993). Hereafter 'CM' followed by page number of English translation, Husserliana volume and page number.
- 22 Edmund Husserl, Die Krisis der europäischen Wissenschaften und die transzendentale Phänomenologie. Eine Einleitung in die phänomenologische Philosophie, ed. W. Biemel, Husserliana VI (The Hague: Martinus Nijhoff, 1962), trans. David Carr, The Crisis of European Sciences and Transcendental Phenomenology. An Introduction to Phenomenological Philosophy (Evanston, IL: Northwestern University Press, 1970). Hereafter 'Crisis'.
- 23 E. Husserl, Erfahrung und Urteil: Untersuchungen der Genealogie der Logik, ed. L. Landgrebe (Hamburg: Meiner, 1999), trans. James S. Churchill and Karl Ameriks as Experience and Judgment. Investigations in a Genealogy of Logic (Evanston, IL: Northwestern University Press, 1973).
- 24 E. Husserl, 'The Task and the Significance of the *Logical Investigations*', in J. N. Mohanty (ed.), *Readings on Edmund Husserl's Logical Investigations* (The Hague: Martinus Nijhoff, 1977), p. 207.
- 25 These reports are collected in E. Husserl, *Aufsätze und Rezensionen (1890–1910)*, ed. B. Rang, Hua Vol. XXII (The Hague: Martinus Nijhoff, 1979), trans. Dallas Willard in Edmund Husserl, *Early Writings in the Philosophy of Logic and Mathematics*, Collected Works V (Dordrecht: Kluwer, 1994), pp. 171–96 and 207–302. Hereafter cited as '*Early Writings*' followed by English pagination and then Husserliana volume and page number.
- 26 See Dallas Willard, 'Husserl's Critique of Extensionalist Logic: "A Logic That Does Not Understand Itself", *Idealistic Studies* 9, 2 (May 1979), 143-64.
- 27 B. Bolzano, *Wissenschaftslehre* (1837; reprinted Sulzbach: Seidel), abridged and trans. by Rolf George as *Theory of Science* (Oxford: Basil Blackwell, 1972).
- 28 See J. N. Mohanty, Husserl and Frege (Indiana: Indiana University Press, 1982), and Claire Ortiz Hill and Guillermo Rosado Haddock, Husserl or Frege? Meaning, Objectivity and Mathematics (La Salle, IL: Open Court, 2000), and Michael Dummett, Frege: Philosophy of Mathematics (London: Duckworth, 1991), pp. 141-54.
- 29 See Crisis §48, trans. Carr, p. 166n; Hua VI: 169 nl.

- 30 E.g., 'Intuition and *Repräsentation*, Intention and Fulfilment', Hua XXII: 269–302, trans. *Early Writings*, pp. 313–44.
- 31 K. Twardowski, Zur Lehre vom Inhalt und Gegenstand der Vorstellungen. Eine psychologische Untersuchung (Vienna: Hölder, 1894; reprinted Munich: Philosophia Verlag), trans. R. Grossmann, On the Content and Object of Presentations. A Psychological Investigation (The Hague: Martinus Nijhoff, 1977).
- 32 See E. Husserl, 'Intentional Objects', *Early Writings*, pp. 345–87; Hua XXII: 303–48. See also the draft translated by Robin Rollinger in his *Husserl's Position* in the School of Brentano (Utrecht: University of Utrecht Publications, 1996), pp. 195–222.
- 33 E. Husserl, 'Intentional Objects', Early Writings, p. 350; Hua XXII: 308.
- 34 For a further discussion of these issues, see Dermot Moran, 'Heidegger's Critique of Husserl's and Brentano's Accounts of Intentionality', *Inquiry* 43 (2000), 39-66.
- 35 E. Husserl, 'Psychologische Studien zur elementaren Logik', Philosophische Monatshefte 30 (1894), 159–91, reprinted in Hua XXII: 92–123, trans. Dallas Willard, 'Psychological Studies in the Elements of Logic', in Husserl, Early Writings, pp. 139–79.
- 36 Schuhmann, Chronik, p. 58.
- 37 Two quotations (Ms. F I 26/83b and F I 26/12a) from the manuscript of Husserl's lectures on *Erkenntnistheorie* are reproduced in the Editor's Introduction to Hua XIX/1: xxx-xxxi.
- 38 See E. Husserl's review of Melchior Palágyi's Der Streit der Psychologisten und Formalisten in der modernen Logik, Zeitschrift für Psychologie und Physiologie der Sinnesorgane 31 (1903), 287–94, reprinted in Hua XXII: 151–61, trans. Dallas Willard, 'Review of Melchior Palágyi's Der Streit der Psychologisten und Formalisten in der modernen Logik', Early Writings, pp. 197–206.
- 39 E. Husserl, 'Bericht über deutsche Schriften zur Logik in den Jahren 1895–1899', Archives für systematische Philosophie 9 (1903) and 10 (1904), reprinted Hua XXII: 162–258, trans. D. Willard, 'Report on German Writings in Logic from the Years 1895–1899', Early Writings, pp. 207–302.
- 40 See E. Husserl, *Einleitung in die Logik und Erkenntnistheorie. Vorlesungen 1906/07*, ed. Ullrich Melle, Hua XXIV (Dordrecht: Kluwer, 1985).
- 41 See E. Husserl, Vorlesungen über Bedeutungslehre. Sommersemester 1908, ed. Ursula Panzer, Hua XXVI (Dordrecht: Kluwer, 1986).
- 42 See E. Husserl, Logik und allgemeine Wissenschaftstheorie. Vorlesungen 1917/18, mit ergänzenden Texten aus der ersten Fassung 1910/11, ed. Ursula Panzer, Hua XXX (Dordrecht: Kluwer, 1996).
- 43 Husserl, XXIV 445; Early Writings, p. 493; see also Husserl, Die Idee der Phänomenologie. Fünf Vorlesungen, ed. W. Biemel, Hua II (The Hague: Martinus Nijhoff, 1973), p. 22, trans. Lee Hardy as The Idea of Phenomenology. Husserl Collected Works VIII (Dordrecht: Kluwer, 1999), p. 18.
- 44 See Husserl's letter of 15 January 1911 to W. Windelband, and his letter to Daubert, 4 March 1911, both quoted in Hua XIX/1: xxiii.
- 45 In his Foreword to the Second Edition, dated Göttingen, October 1913, Husserl records that the book had been out of print for some years, and he expresses uncertainty about the form in which it should now appear.
- 46 E. Husserl, 'A Report on German Writings in Logic (1895–1899)', in *Early Writings*, p. 251; Hua XXII: 206–7.
- 47 Husserl explicitly laid out the method of *epoché* and reduction in his 1907 lectures, *Die Idee der Phänomenologie. Fünf Vorlesungen*, Hua II, *op. cit.*, trans. by Lee Hardy as *The Idea of Phenomenology*, *op. cit.*
- 48 See Husserl's 1906-7 Introduction to Logic and the Theory of Knowledge, Hua XXIV: 217-20.

- 49 See E. Husserl, 'Entwurf einer "Vorrede" zu den Logischen Untersuchungen (1913)', ed. E. Fink, *Tijdschrift voor Filosofie* 1, 1 (Feb. 1939), 107–33 and ibid., No. 2 (May 1939), 319–39 (hereafter 'Fink, *Entwurf*'), trans. Philip Bossert and Curtis Peters, *Draft Preface*. See especially, Fink, *Entwurf* §11, p. 329.
- 50 Ullrich Melle of the Husserl-Archief, Leuven, is currently editing the manuscripts Husserl left of his 1913 and 1914 revisions of the Sixth Investigation for publication in Volume XX of the Husserliana series.
- 51 I am grateful to Ullrich Melle for providing me with the typescript of his paper 'Husserl's Unfinished Revision of the Sixth Logical Investigation', presented in Copenhagen, May 2000.
- 52 M. Schlick, Allgemeine Erkenntnislehre, Vol. 1 (Berlin, 1918), 2nd edn trans. A. Blumberg, General Theory of Knowledge (La Salle, IL: Open Court, 1974).
- 53 E. Fink, 'The Phenomenological Philosophy of Edmund Husserl and Contemporary Criticism', in R. O. Elveton (ed.), *The Phenomenology of Husserl. Selected Critical Readings*, 2nd edn (Seattle: Noesis Press, 2000), esp. pp. 79–80.
- 54 Husserl seems particularly stung by this criticism which he returned to several times, including in *Formal and Transcendental Logic* §56, p. 152; Hua XVII: 160–1.
- 55 Selbstanzeige ('Author's Report') to the Prolegomena, trans. in Husserl, Draft Preface, ed. Fink, p. 4; Hua XVIII: 262.
- 56 G. Frege, 'Rezension von: E. G. Husserl, Philosophie der Arithmetik I', Zeitschrift für Philosophie und philosophische Kritik (1894), 313-32, reprinted in Frege, Kleine Schriften, ed. I. Angelelli (Hildesheim: Georg Olms, 1967), trans. by E. W. Kluge as 'Review of Dr. E. Husserl's Philosophy of Arithmetic', in Husserl. Expositions and Appraisals, ed. Frederick Elliston and Peter McCormick (Notre Dame: University of Notre Dame Press, 1981), pp. 314-24.
- 57 More accurately, Frege defines numbers as follows: 'the Number which belongs to the concept F is the extension of the concept "equal to the concept F"', Frege, *Die Grundlagen der Arithmetik* (Breslau: Koebner, 1884), trans. J. L. Austin, *The Foundations of Arithmetic*, 2nd rev. edn (Evanston, IL: Northwestern University Press, 1994), pp. 79–80.
- 58 W. R. Boyce-Gibson, 'From Husserl to Heidegger: Excerpts from a 1928 Diary by W. R. Boyce-Gibson', ed. H. Spiegelberg, *Journal of the British Society for Phenomenology* 2 (1971), 58-83. For a full account of the debate regarding the supposed influence of Frege on Husserl, see Mohanty, *Husserl and Frege*.
- 59 Ernest Hocking, a student of Husserl's from the early Göttingen days, reports how Husserl recommended his students to read Bolzano's Wissenschaftslehre. See W. E. Hocking, 'From the early days of the "Logische Untersuchungen" ', in H. L. Van Breda and J. Taminiaux (eds), Edmund Husserl. 1859-1959. Recueil commémoratif à l'occasion du centenaire de la naissance du philosophe (The Hague: Martinus Nijhoff, 1959), p. 3.
- 60 K. Fine, 'Part-Whole', in Barry Smith and David Woodruff Smith (eds), *The Cambridge Companion to Husserl* (Cambridge: Cambridge University Press, 1995), p. 464.
- 61 David Bell, Husserl (London: Routledge, 1991), pp. 85-6.
- 62 Robert Sokolowski, 'The Structure and Content of Husserl's Logical Investigations', Inquiry 14 (1971), 318-50, esp. p. 319.
- 63 Husserl, 'Task and Significance of the Logical Investigations', Phenomenological Psychology, p. 18; Hua IX: 25.
- 64 Husserl, Phenomenological Psychology, p. 18; Hua IX: 25.
- 65 J. S. Mill, A System of Logic (London: John W. Parker, 1843), Vol. 1, Bk 1, Ch. 2, §5, p. 40.

- 66 See K. Mulligan and B. Smith, 'A Husserlian Theory of Indexicality', *Grazer Philosophische Studien* 28 (1996), 133–63. See also K. Schuhmann, 'Husserl's Theories of Indexicals', in F. M. Kirkland and D. P. Chattopadhyaya (eds), *Phenomenology – East and West* (Dordrecht: Kluwer, 1993), pp. 111–27.
- 67 John R. Searle, Speech Acts: An Essay in the Philosophy of Language (Cambridge: Cambridge University Press, 1969). On Reinach, see K. Mulligan (ed.), Speech Act and Sachverhalt. Reinach and the Foundations of Realist Phenomenology (Dordrecht: Martinus Nijhoff, 1987).
- 68 F. Brentano, *Descriptive Psychology*, trans. B. Müller (London: Routledge, 1995). In the background also is Bolzano's discussion of parts and wholes in his *Wissenschaftslehre*.
- 69 See Barry Smith and K. Mulligan, 'Husserl's Third Logical Investigation: The Formal Ontology of the Part-Whole Relation', in B. Smith and K. Mulligan (eds), *Parts and Moments. Studies in Logic and Formal Ontology* (Munich: Philosophia Verlag, 1992), pp. 35–45.
- 70 A similar point is made by Rudolf Carnap, who may have been directly influenced by Husserl whose seminars he attended in 1924. See Y. Bar-Hillel, 'Remarks on Carnap's Logical Syntax of Language', in Paul Schilpp (ed.), *The Philosophy* of Rudolf Carnap (La Salle, IL: Open Court, 1963), pp. 519-43.
- 71 See Suzanne Bachelard, A Study of Husserl's Formal and Transcendental Logic, trans. Lester Embree (Evanston, IL: Northwestern University Press, 1968), p. 7.
- 72 Roman Jakobson acknowledges the importance of Husserl's work for linguistics in his essays, 'Zur Struktur des Phonems' (1939) and in his *Main Trends in the Science of Language* (London: Allen & Unwin, 1973), pp. 13–16. See Elmar Holenstein, 'Jakobson's Contribution to Phenomenology', in *Roman Jakobson: Echoes of His Scholarship*, ed. David Armstrong and C. H. Van Schooneveld (Lisse: Peter De Ridder Press, 1977), pp. 145–62.
- 73 F. Brentano, *Psychology from an Empirical Standpoint*, trans. A. C. Rancurello,
 D. B. Terrell and L. L. McAlister, 2nd edn with new Introduction by Peter Simons (London: Routledge, 1995), p. 88.
- 74 Nominalisation makes possible the shift from formal apophantics to formal ontology.
- 75 For an account of some of the immediate reactions to Husserl's *Investigations* in Germany, see Farber, *The Foundation of Phenomenology*, *op. cit.*, pp. 147–69.
- 76 Wilhelm Dilthey, Studien zur Grundlegung der Geisteswissenschaften, Gesammelte Schriften VII (Stuttgart: B. G. Teubner, 1968), p. 14n: 'Suche ich nun hier diese meine Grundlegung einer realistisch oder kritisch objektiv gerichteten Erkenntnistheorie fortzubilden, so muss ich ein für allemal im ganzen darauf hinweisen, wie vieles ich den in der Verwertung der Deskription für die Erkenntnistheorie epochemachenden "Logische Untersuchungen" von Husserl (1900.1901) verdanke.' [If I am now seeking to develop further my foundation of a theory of knowledge with a realistically or critically objective orientation, I must first and foremost and in general mention how much I owe to the Logical Investigations of Husserl, which are epoch-making in the use of description for the theory of knowledge.]
- 77 See W. Wundt, 'Psychologismus und Logizismus', in *Kleine Schriften*, Vol. 1 (Leipzig, 1910) and Husserl's reply in his draft Preface of 1913 (in the new edition of Ullrich Melle), 'Zwei Fragmente zum Entwurf einer Vorrede zur zweiten Auflage der *Logischen Untersuchungen*', to appear in Husserliana series. Husserl is very critical of Wundt's misreading: exclaiming at one point: 'One cannot read the *Logical Investigations* like a newspaper'.
- 78 Paul Natorp, 'Zur Frage der logischen Methode. Mit Beziehung auf Edmund Husserls Prolegomena zur reinen Logik', Kant Studien 6 (1901), 270ff., reprinted

in H. Noack (ed.), *Husserl* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1973), pp. 1–15, trans. as 'On the Question of Logical Method in Relation to Edmund Husserl's Prolegomena to Pure Logic', by J. N. Mohanty, in J. N. Mohanty (ed.), *Readings on Edmund Husserl's Logical Investigations* (The Hague: Martinus Nijhoff, 1977), pp. 55–66.

- 79 See Natorp, 'Zur Frage der logischen Methode', pp. 270ff, and Iso Kern, Husserl und Kant (The Hague: Martinus Nijhoff, 1964), p. 31.
- 80 Martin Heidegger, Zur Sache des Denkens (Tübingen: Niemeyer, 1969), trans. as 'My Way to Phenomenology', by Joan Stambaugh, in M. Heidegger, On Time and Being (New York: Harper & Row, 1972), pp. 74–82.
- 81 Ibid., pp. 74-5.
- Martin Heidegger, 'Neuere Forschungen über Logik', Literarische Rundschau für das katholische Deutschland 38, 10 (1 Oct. 1912), cols 465–72; 11, cols 517–24; No. 12, cols 565–70, reprinted in M. Heidegger, Frühe Schriften (1912–1916), ed. F.-W. Von Hermann (Frankfurt: Klostermann, 1978), pp. 17–43.
- 83 E. Husserl, *Recherches logiques*, trans. from the German by Hubert Elie, Arion L. Kelkel and René Schérer, 3 vols (Paris: Presses Universitaires de France, 1959–63).
- 84 J. Derrida, Le Problème de la genèse dans la philosophie de Husserl (Paris: Presses Universitaires de France, 1990).
- 85 See J. Derrida, La Voix et le phénomène (Paris: Presses Universitaires de France, 1967), ed. and trans. David Allison as Speech and Phenomena and Other Essays on Husserl's Theory of Signs (Evanston, IL: Northwestern University Press, 1973). For a critique of Derrida's interpretation see J. Claude Evans, Strategies of Deconstruction. Derrida and the Myth of the Voice (Minneapolis: University of Minnesota Press, 1991).
- 86 W. R. Boyce-Gibson records in his diary that Moore admired the *Investigations*, see his 'From Husserl to Heidegger', ed. Spiegelberg, p. 66.
- 87 B. Russell, Skeptical Essays (New York: W. W. Norton, 1928), pp. 70-1.
- 88 Richard Rorty, *Philosophy and the Mirror of Nature* (Oxford: Basil Blackwell, 1980), p. 166.
- 89 An indication of this recent analytic interest in Husserl is to be seen in Woodruff Smith (ed.), *Cambridge Companion to Husserl*.
- 90 Michael Dummett, Origins of Analytic Philosophy (London: Duckworth, 1993), pp. 43-56; Bell, Husserl.
- 91 See Richard Tieszen, 'Gödel's Path from the Incompleteness Theorems (1931) to Phenomenology (1961)', *Bulletin of Symbolic Logic* 4, 2 (June 1998), 181–203.
- 92 See John R. Searle, *The Mystery of Consciousness* (London: Granta, 1997), p. 5: 'Consciousness so defined is an inner, first-person, qualitative phenomenon'; Colin McGinn, *The Subjective View* (Oxford: Oxford University Press, 1983), and Thomas Nagel, *The View From Nowhere* (Oxford: Oxford University Press, 1986), whose central problem is the relation between the perspective of a person within the world and the objective view of the world which includes that person and his or her viewpoint. For Husserl's defence of the first-person, see David Carr, *The Paradox of Subjectivity* (New York: Oxford University Press, 1999), p. 77: '[Husserl's] phenomenology is not just about experiences but about the first-person standpoint itself'.
- 93 See note 1 above. Even the critical edition has been criticised for not retaining Husserl's own particular orthographical conventions, and for taking the Second Edition (B text) as basic and showing the First Edition (A text) only in footnotes. Findlay began his translation of the Fifth and Sixth Investigations before the Second World War but was unable to gain the publishing permissions until 1961.

Select bibliography

Primary Sources

Husserl, Edmund (1956-) Gesammelte Werke. Husserliana. Dordrecht: Kluwer. Husserl, Edmund (1996) Gesammelte Schriften. Hamburg: Meiner.

Husserl, Edmund (1999) Erfahrung und Urteil: Untersuchungen der Genealogie der Logik, hrsg. L. Landgrebe. Hamburg: Meiner.

.

Husserl in Translation

- Husserl, Edmund (1964) Philosophy as a Rigorous Science, 1911, in Quentin Lauer, Edmund Husserl. Phenomenology and the Crisis of Philosophy, New York: Harper & Row.
- Husserl, Edmund (1967) Cartesian Meditations, trans. Dorion Cairns, The Hague: Martinus Nijhoff.
- Husserl, Edmund (1969) Formal and Transcendental Logic, trans. Dorion Cairns, The Hague: Martinus Nijhoff.
- Husserl, Edmund (1970) The Crisis of European Sciences and Transcendental Phenomenology. An Introduction to Phenomenological Philosophy, trans. David Carr, Evanston, IL: Northwestern University Press.
- Husserl, Edmund (1973) *Experience and Judgment: Investigations in a Genealogy* of Logic, trans. J. S. Churchill and Karl Ameriks, Evanston, IL: Northwestern University Press.
- Husserl, Edmund (1975) Introduction to the Logical Investigations. Draft of a Preface to the Logical Investigations, ed. E. Fink, trans. P. J. Bossert and C. H. Peters, The Hague: Martinus Nijhoff.
- Husserl, Edmund (1977) Phenomenological Psychology. Lectures, Summer Semester 1925, trans. J. Scanlon, The Hague: Martinus Nijhoff.
- Husserl, Edmund (1981) Husserl. Shorter Works, trans. and ed. Frederick Elliston and Peter McCormick, Notre Dame: University of Notre Dame Press.
- Husserl, Edmund (1983) Ideas pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book, trans. F. Kersten, Dordrecht: Kluwer.
- Husserl, Edmund (1989) Ideas pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, Second Book, trans. R. Rojcewicz and A. Schuwer, Dordrecht: Kluwer.

- Husserl, Edmund (1990) On the Phenomenology of the Consciousness of Internal Time, trans. J.B. Brough, Collected Works IV, Dordrecht: Kluwer.
- Husserl, Edmund (1994) Early Writings in the Philosophy of Logic and Mathematics, trans. Dallas Willard, Collected Works V, Dordrecht: Kluwer.
- Husserl, Edmund (1997) *Thing and Space: Lectures of 1907*, trans. R. Rojcewicz, Collected Works VII, Dordrecht: Kluwer.
- Husserl, Edmund (1999) The Idea of Phenomenology, trans. Lee Hardy. Dordrecht: Kluwer.
- Husserl, Edmund (1999) *The Essential Husserl*, ed. Donn Welton, Bloomington, IN: Indiana University Press.

Further Reading

- Bell, David (1990) Husserl, London: Routledge.
- Bernet, Rudolf, Iso Kern and Eduard Marbach (1993) An Introduction to Husserlian Phenomenology. Evanston, IL: Northwestern University Press.
- DeBoer, Theodor (1978) The Development of Husserl's Thought. The Hague: Martinus Nijhoff.
- Derrida, Jacques (1973) Speech and Phenomena and Other Essays on Husserl's Theory of Signs, ed. and trans. David Allison, Evanston, IL: Northwestern University Press.
- Dreyfus, Hubert L. (ed.) (1982) Husserl, Intentionality and Cognitive Science, Cambridge, MA: MIT Press.
- Dummett, Michael (1991) Frege: Philosophy of Mathematics, London: Duckworth.
- Dummett, Michael (1991) Frege and Other Philosophers, Oxford: Oxford University Press.
- Dummett, Michael (1993) Origins of Analytic Philosophy, London: Duckworth.
- Elveton, R. O. (ed.) (2000) The Phenomenology of Husserl. Selected Critical Readings, 2nd edn, Seattle: Noesis Press.
- Farber, Marvin (1943) The Foundation of Phenomenology, Albany, NY: State University of New York Press.
- Levinas, Emmanuel (1973) *The Theory of Intuition in Husserl's Phenomenology*, trans. A. Orianne, Evanston, IL: Northwestern University Press.
- Mohanty, J. N. (ed.) (1977) *Readings on Husserl's Logical Investigations*, The Hague: Martinus Nijhoff.
- Mohanty, J. N. (1982) Husserl and Frege, Bloomington, IN: Indiana University Press.
- Moran, Dermot (2000) Introduction to Phenomenology. London and New York: Routledge.
- Moran, Dermot (2000) 'Heidegger's Critique of Husserl's and Brentano's Accounts of Intentionality', *Inquiry* 43: 39–66.
- Mulligan, Kevin and Smith, Barry (1986) 'Husserl's Logical Investigations', Grazer Philosophische Studien 27: 199–207.
- Ricoeur, Paul (1967) Husserl. An Analysis of his Philosophy, Evanston, IL: Northwestern University Press.
- Schérer, René (1967) La Phénoménologie des 'Recherches Logiques' de Husserl, Paris: Presses Universitaires de France.

- Schuhmann, Karl (1977) Husserl-Chronik. Denk- und Lebensweg Edmund Husserls, Husserliana Dokumente 1, The Hague: Martinus Nijhoff.
- Sepp, Hans Rainer (ed.) (1988) Edmund Husserl und die phänomenologische Bewegung. Zeugnisse in Text und Bild, Freiburg/Munich: Karl Alber Verlag.
- Smith, Barry and Woodruff Smith, David (eds) (1995) The Cambridge Companion to Husserl, Cambridge: Cambridge University Press.
- Sokolowski, Robert (1971) 'The Structure and Content of Husserl's Logical Investigations', Inquiry 14: 318-50.
- Sokolowski, Robert (2000) Introduction to Phenomenology, Cambridge: Cambridge University Press.
- Spiegelberg, Herbert (1994) The Phenomenological Movement. A Historical Introduction, 3rd revised and enlarged edition with the assistance of Karl Schuhmann, Dordrecht: Kluwer.
- Ströker, Elizabeth (1993) Husserl's Transcendental Phenomenology. Stanford, CA: Stanford University Press.
- Taminiaux, Jacques (1985) 'Heidegger and Husserl's Logical Investigations', in Dialectic and Difference, New Jersey: Humanities Press, 91-114.