

To Sharon, with love

Introduction

Lack of historical sense is the family failing of all philosophers ... what is needed from now on is *historical philosophizing*, and with it the virtue of modesty. (Nietzsche, 'Of First and Last Things' (1878), §2; *Human, All Too Human*, p. 13.)

Analytic philosophy is now firmly established as the central philosophical tradition in the English-speaking world; yet it is only recently, with the centenaries of its seminal publications already upon us, that investigation of its historical origins and development has been seriously advocated and pursued. This may not be extraordinary in itself, since any successful research programme, in either its pioneering infancy or its dominant maturity, will be more concerned with results than with the source and evolution of its assumptions and methods; but it does deserve explanation when set against the emerging appreciation in the 19th century of the importance of an historical understanding of the formation and articulation of our intellectual beliefs (to which Nietzsche, amongst others, gave such eloquent – though in Nietzsche's case, sometimes also ironic – expression). Any attempt to inject historical self-consciousness into the analytic tradition, then, has to face the apparent tension between the development of analytic philosophy itself and its own intellectual context.

The explanation of this must inevitably focus on the revolution in logic instigated, in particular, by Gottlob Frege, and consolidated, most notably, by Bertrand Russell and Ludwig Wittgenstein. The invention of a new and much more powerful conceptual system is bound to lead its early proponents to occupy themselves primarily with its *use* – reformulating and providing fresh solutions to old and intractable problems. Only when those solutions have been properly developed, and their range and implications appreciated, can questions be raised about their own dependence on the new conceptual system, and the origins, nature and value of that system as a whole. Historical questions may justifiably be submerged in the euphoria of actually operating the new system, but as that system itself comes under scrutiny, they will reappear in a more urgent form.

The short answer to the apparent tension noted above, then, is that we are only now in a position to attempt the relevant historical investigation; and it is one aim of the present work, in providing an account of Frege's philosophy, to make a contribution to this. But there is clearly more to say about the tension itself, and the longer answer can only be provided by

actually pursuing this investigation in an appropriately self-conscious way. In this introductory chapter, I briefly consider the general issue as to the relationship of analytic philosophy to the history of philosophy, outlining my own historiographical stance (§0.1), before locating Fregean logic in the picture, and highlighting the main themes of my account – in particular, my central concern with Frege's conception of sense (§0.2). In the final section, I show how Frege's own repudiation of the historical approach is misguided, and comment on the implications for the project pursued here (§0.3).

0.1 Analytic Philosophy and History

Analytic philosophy has frequently been criticized not simply for its lack of interest in its own origins and development, but more fundamentally, for its explicit repudiation of considerations that are 'merely historical'. The criticism involved here raises deeper issues than the tension we initially described might suggest. For analytic philosophy has been seen not merely as *ahistorical*, but as *anti-historical*. Analytic philosophy did not simply arise from the endeavours to make use of a new and more powerful logical system. From the beginning, these endeavours were embedded in a distinctly philosophical project, which involved the forthright rejection of certain preceding views, amongst them the historicism that had emerged in the 19th century, whilst attempting to demonstrate the objective foundations of various philosophical disciplines, through the employment of a robust sense of realism inspired by the successes of the physical sciences. To an extent, the 'revolution' that occurred was very Cartesian, an essentially foundational project fostered, in this case, by the new logic, just as Descartes had been motivated by the new mathematical physics of the 17th century. Analytic philosophy offered another fresh start – a further break with the past – and since it was based on *logic*, which was assumed to be *a priori*, the dismissal of historical considerations could be taken as justified.

However, just as in the case of Descartes, the supposed break with the past turned out to be much less extensive than initially thought. If Descartes made use of certain scholastic ideas and principles in his arguments (notably in his proof of the existence of God in the third Meditation), then Frege and Russell equally took over terminology and conceptions that were then part of the standard philosophical tradition.¹ The Kantian co-ordinates of *a priori* / *a posteriori* and *analytic* / *synthetic* were only slightly modified to accommodate the new logic (the disagreement with Kant over the status of arithmetic operated *within* this framework); and in particular, the fundamental conception of logic as *a priori* and absolute was never questioned. Analytic philosophy may have seen itself as *ahistorical*, then, but this does not mean that it cannot itself

be understood historically. Indeed, some sense of its historical presuppositions is required if it is to be understood at all.

But is it the task of an *analytic* philosopher to engage in this historical investigation? This raises the question as to the relationship between analytic philosophy and the history of philosophy. Analytic philosophers themselves, of course, have written extensively on their great predecessors, both within and without their own tradition. But they have often been criticized for lacking any genuine historical sense; and a distinction has come to be drawn between *rational reconstructions*, which present the thought of a past philosopher as coherently as possible from a modern perspective, selecting those topics that remain of relevance today, and *historical reconstructions*, which attempt to see the issues as they were then perceived, being as sensitive as possible to the wider social, cultural and intellectual environment of the philosopher.² But does this then not present a dilemma to the historian of philosophy? Which endeavour should they undertake?

One's immediate thought, however, is that the dilemma is spurious. As Richard Rorty has put it, 'We should do both of these things, but do them separately' (1984: p. 49). Given the ever increasing academic division of labour, there would seem to be no reason why philosophers should not be free simply to choose which enterprise to engage in. But this relativist ploy only delays the problem. For any useful historical reconstruction requires skill in contemporary rational argument, and any convincing rational reconstruction requires sensitivity to the historical context. Rorty himself later admits that 'the two genres can never be *that* independent', and notes that the kinds of concern that each involves 'should be seen as moments in a continuing movement around the hermeneutic circle, a circle one has to have gone round a good many times before one can begin to do *either* sort of reconstruction' (1984: p. 53, n. 1). However, if the two enterprises are, after all, mutually dependent, then there is no real sense in which they can be done separately. A rational reconstruction is better the more it is historically informed, and vice versa; so that ideal work in the history of philosophy combines both.

However, whilst the dilemma can be 'solved' at the level of the ideal ('We should do both of these things, and do them together'), there is, I think, a more manageable project that offers a practical solution to the dilemma. Let us call this project (albeit somewhat *immodestly*) *dialectical reconstruction*, which, in alluding to an Hegelian conception of the history of philosophy, also suggests that what is required is a *synthesis* of rational and historical reconstruction. The guiding idea is that any philosophical system is an attempt to reconcile certain fundamental tensions in our natural ways of looking at the world, ourselves and their interrelationships. Philosophizing is by its very nature *dialectical*, a process of synthesizing some particular viewpoint and what appears to be in conflict with it. Given that philosophizing is a conceptual process, then two

features deserve emphasis. Firstly, as a *process*, it has an essentially *historical* dimension, in the sense that it *develops* through time. Philosophers can make improvements on their predecessors by furthering the dialectical process. Philosophical positions are not eternally given, towards which different philosophers take up varying attitudes and for which they construct better or worse arguments.³ Those positions themselves evolve, and need to be understood as historical phenomena. Secondly, as a *conceptual* activity, philosophy leads – to some extent – an independent and autonomous existence, grounded in, but not determined by, the wider social and cultural environment. It may not be necessary to know the full details of a philosopher's life, and the influences upon them, to grasp the essential structure of their thought. Provided there is some minimum shared background (which may be partly constituted by a similar philosophical training – immersion in the same literature, for example), then a careful reading of the key texts may be all that is needed to appreciate the fundamental problems that a philosopher was grappling with and the conflicts that motivated them. This may be sufficient both to expound their thought fairly and also to carry the debate further.

Doing justice to both of these features, then, dialectical reconstruction will involve tracing the *development* of certain themes and ideas in the history of philosophy whilst allowing that their *selection* may be justifiably governed by present concerns (philosophy being a reasonably continuous and autonomous discipline). By focussing on the *tensions* within philosophical systems, one can appreciate both the drive of philosophical theorizing, as well as the strengths and weaknesses of their attempted resolution.⁴ However many 'influences' on a philosopher's thought one considers (and more will require study the less there is a shared background), in the end it is the issues themselves – as they are found in the texts – that demand careful analysis and assessment. But the result of this must not be a series of loosely related essays on topics that the philosopher treats, but a presentation that exhibits the dynamic development of their thought, the interconnections between its elements, and the underlying tensions that motivated it and might still remain.⁵ If these requirements are fulfilled, dialectical reconstruction can succeed in being both *historical* (appreciating the *evolution* of ideas, though not necessarily every aspect of the social and cultural context) and *rational* (*thinking through*, rather than merely reporting, the issues), whilst remaining on a modest scale.

It may have been Hegel who introduced the dialectical method into the history of philosophy, at the beginning of the 19th century, but his own application of it was vitiated by his combination of historical determinism and absolute idealism, reflected in his belief that history embodied the inevitable progress to self-consciousness of the universal *Geist*.⁶ It was against this Hegelian historicism that Nietzsche for one reacted in the latter half of the 19th century. In one of his earliest essays, 'On the uses and disadvantages of history for life' (1874), Nietzsche asserts, in a remark

that would be warmly endorsed by the contemporary analytic philosopher: 'If you are to venture to interpret the past you can do so only out of the fullest exertion of the vigour of the present' (p. 94). However, whilst analytic philosophy emerged outrightly opposed to any form of historicism, Nietzsche was more concerned with striking a balance: 'the unhistorical and the historical are necessary in equal measure for the health of an individual, of a people and of a culture' (ibid., p. 63). In his later work, it is an historicism aimed at revealing our present condition that guides his thought. In *Human, All Too Human* (as the quote at the beginning of this introduction shows), Nietzsche condemns the lack of historical sense of most philosophers, and commends instead *historical philosophizing*, pursued with the awareness that there is no overarching perspective or ultimate goal. It is this rationally moderated and non-teleological historicism that the project of dialectical reconstruction must attempt to encapsulate.

Since Hegel, historical philosophy (in varying forms) has always maintained a strong presence in Continental Europe, especially in Germany, from Marx, Dilthey and Nietzsche through Heidegger to Gadamer and modern hermeneutics. In Britain, Collingwood was the most prominent in advocating an historical approach to philosophy, but his work was largely eclipsed by the dominance of the analytic movement.⁷ More recently, however, philosophers brought up *within* the analytic tradition have begun to write the kind of historical philosophy endorsed here;⁸ and this is particularly significant, for it suggests that the gulf between analytic philosophy and 'continental' thought may finally be bridged. Certainly, the clarity and rigour of analytic philosophy combined with the historical sensitivity and critical self-consciousness of hermeneutics should make for a powerful new force. Whether such an approach could be applied in the field of *logic* – which might seem especially resistant to historical treatment – will be considered in the next section.

0.2 The Development of Fregean Logic

Ever since Aristotle first carved it out, logic has always had a unique but contested relationship with philosophy as a whole. Logic has been seen as the foundation of philosophy, as a branch of philosophy, or as merely a tool of philosophy (cf. §1.3 below). The dispute over the *status* of logic depends, of course, on the debate about its *nature*. Conceived as simply the study of valid reasoning, for example, logic might indeed seem useful merely as a *tool* of philosophy. Conceived as providing us with the 'laws of thought', with knowledge of the workings of our 'reason', it might count as a *branch* of philosophy. Conceived as both of these things, together with the assumption that reason itself (reflected in thought and language) mirrors the structure of the world, it might be regarded as the *foundation* of philosophy.

Clearly, the answer that is given here determines the shape and content of a *history of logic*. If logic were either a branch or the foundation of philosophy, then the history of logic could be investigated in exactly the same way, and be as philosophically relevant, as the history of philosophy generally. If logic were merely the study of valid reasoning, on the other hand, and assuming that our patterns of reasoning have not significantly changed over the last two and a half millennia (perhaps because the structure of language, or the world itself, has not substantially changed), then there would be no reason to suppose that logic possessed an *essentially* historical dimension. It might well be that our *theories* have improved over the years, but this would simply mean that they have come to encompass greater areas of our reasoning, so that a history of logic would just be the story of our progress towards a more comprehensive theory. As many are tempted to think in the case of science, knowledge of the history of the subject would not be necessary either to understand logical theory or to use or develop it effectively.

However, even a brief acquaintance with textbooks on logic shows that philosophical assumptions are made in formalizing arguments, and that there is often disagreement on how particular types of proposition or argument *should* be characterized. The proliferation, since the time of Frege, of various non-classical logics (such as intuitionistic and quantum logic) reveals, even more fundamentally, profound disagreement over the logical laws themselves. Logic as it is now practised covers not only formalization and proof, but also their justification, and the critique of alternative theories. Modern logic now involves not only formal logic, but also mathematical logic, philosophical logic, philosophy of logic, philosophy of language, philosophy of mathematics and philosophy of science, although all of these areas overlap with one another and cannot actually be defined independently. Even in its infancy, logical formalization revealed philosophical preconceptions, though these were not always explicitly recognized to the extent that would justify regarding, say, Aristotle as himself a philosopher of logic or language. (I take up this controversial issue in chapter 1.) Any history of logic, then, would not simply involve the story of the development of a more and more comprehensive logical theory, or set of logical theories, but also, more importantly, provide an account of our changing *conceptions* of logic – the philosophical assumptions involved, the perceived nature and value of logic, and its evolving place within philosophy as a whole.

Any position that might be adopted on the debate over the nature and status of logic, then, would itself embody philosophical assumptions, so that a history of logic could hardly eschew philosophical discussion – clarifying and tracing the evolution of these assumptions. (In the same way, the history and philosophy of science are intimately related, each involving the other to the extent that they are frequently treated as just one discipline.) Indeed, the very fact that this debate has been so fiercely

contested since the time of Aristotle, and that logic has now become so inseparable from many contemporary philosophical projects, suggests that a study of its history would pay rich philosophical dividends. But this is not to say that one's own conception of logic cannot itself help shape the way the historical investigation is pursued. Here in particular, a project of dialectical reconstruction might prove effective. The evolution of ideas can be elucidated from one's current perspective, and that current perspective can in turn be refined by the investigation of its historical development, in the 'continuing movement around the hermeneutic circle' to which Rorty referred.

There is, though, a deeper reason why an appreciation of the history of logic is philosophically enriching. For the evolution of ideas never proceeds in a linear fashion, each stage emerging smoothly out of the previous one. There are often major discontinuities, and whilst some tensions and confusions may be removed at each stage, yet further ones will appear, and it is rarely the case that a later conception is superior in every respect to an earlier one. (This is precisely the message of the dialectical process.) More importantly, it is only through an awareness of the advantages and disadvantages of both the earlier and later conceptions (the 'thesis' and 'antithesis') that a better conception (a 'synthesis') can be attained, locating both in a broader perspective that offers some kind of resolution of the differences. In logic, as in philosophy generally, reflecting carefully on past achievements is itself to extend our understanding.

In the history of logic there have been two dominant logical systems – Aristotelian logic (syllogistic theory) and Fregean (modern) logic. The relationship between them is by no means simply that of primitive to more sophisticated (though modern logic is indeed more sophisticated), nor is it simply that Fregean logic *replaced* traditional logic, rebuilding from scratch and ignoring all the old ideas. Modern logic is neither completely different nor a straightforward expansion of the old, and a detailed comparison of the two yields valuable insights. The transition from one conceptual 'paradigm' to another is always fascinating, and the overthrow of syllogistic theory by Fregean logic is as important in logic as the Copernican revolution in astronomy or the change from Newtonian to quantum mechanics in physics. To appreciate the emergence of modern logic, we clearly need to recover the previous 'paradigm'; and I provide an account of Aristotelian logic in chapter 1. Not only does this provide the background against which the merits and superior power of modern logic can be exhibited, but also, more importantly, it allows us to approach modern logic from the right direction, helping us to avoid *reading into* its origins our own more fully developed conceptions. Those conceptions can *guide* us in our investigation, informing us where to look, but we must clearly be as sensitive to what a theory does *not* involve as we are to what it does.⁹ Appreciating just what was new in the emergence of Fregean logic is the aim of chapter 2.

Why, in particular, though, might our understanding of the emergence of modern logic be obscured by our present conceptions? One characteristic feature of recent analytic philosophy has been its concern with *theories of meaning*, which take for granted a *semantic* conception of logic, seen as originating in Frege's work. In his pioneering book on Frege, Michael Dummett went so far as to *identify* Fregean logic with the theory of meaning (see e.g. 1981a: p. 669). In order to develop his logical system, Dummett argued, Frege had to give a semantic, and not merely a syntactic, analysis of our language, and hence had to provide 'the foundation of a theory of meaning' (ibid., p. 2). But these remarks are, at the very least, misleading, for most of Frege's reflections on language (even supposing they amount to a 'theory of meaning') occurred *after* the development of his 'Begriffsschrift', and as we shall see, even his later ideas were not fully thought through.¹⁰ Care is needed, therefore, in tracing the *evolution* of Frege's ideas; and it is one of the aims of this work to explore in some detail the relationship between the development of a logical system and the achievement of semantic insights. Here too there is a hermeneutic circle in play, so that whilst it would be wrong to denigrate Dummett's 'rational reconstructions', we must nevertheless avoid barging into the circle with our modern semantic baggage.

It is, however, fair to say that it is only in Frege's work that a *semantic* conception of sense emerged. On this conception, two propositions have the same 'sense' – or 'content' as Frege called it in his early work – iff (if and only if) they are *logically equivalent*. As I show in §1.4, this apparently natural conception of sense was not one that Aristotle possessed, despite the fact that he recognized that members of certain pairs of propositions could be inferred one from the other. The conception emerged in Frege's work when he felt the need to *justify* his logical theory, the use of function-argument analysis yielding different results from that of traditional subject-predicate analysis. Subject/predicate position, Frege argued, was of no *logical* significance: all that was important was that feature of the meaning of a proposition that was relevant to its logical implications, and this feature Frege called its 'conceptual content'. Even after his early notion of 'conceptual content' had given way to the notions of 'Sinn' and 'Bedeutung', Frege continued to insist on the distinction between that part of the meaning of an expression with which logic is concerned – its 'sense' – and what he called 'illumination' ('Beleuchtung') or 'colouring' ('Färbung').¹¹

However, the very fact that Frege's notion of 'content' did later give way to the notions of 'Sinn' and 'Bedeutung' suggests that there is a more complex story to tell here; and in fact I shall argue that there is a fundamental *tension* in Frege's conception of sense, between a coarse-grained *semantic* and a fine-grained *epistemic* conception. Very roughly, two propositions have the same *semantic* sense iff the truth of one implies the truth of the other, and vice versa; whilst two propositions have the

same *epistemic* sense iff our *recognition* of the truth of one implies our *recognition* of the truth of the other, and vice versa. To use Frege's canonical example, knowing the truth of 'The Morning Star is a body illuminated by the Sun' does not entail knowing the truth of 'The Evening Star is a body illuminated by the Sun', so that the two propositions have different epistemic senses.¹² Whilst Frege's 'official' conception was epistemic, the analyses that he provides in his work require a semantic conception, and the tension runs deep in his philosophy, being reflected, for example, in his uncertainty about the status of Axiom V of the *Grundgesetze* (which Frege held responsible for the contradiction that Russell discovered in his system; see §§ 7.2 and 8.1 below), and in the problems generated by his later account of 'timeless' thoughts (see §7.5 below). The semantic conception that emerged in Frege's work, then, was insufficiently worked through by Frege to justify attributing to him a theory of meaning in the modern sense – which is not to deny that there are elements in his thought that can be used in constructing such a theory.

The motivation behind Frege's development of his new logic came not from a desire to provide a theory of meaning for natural languages but rather from the desire to secure the foundations of arithmetic, in particular, to demonstrate logicism – the thesis that arithmetic is reducible to logic. Such a project required a more powerful logical system than was then available, and it was his development of such a logic that Frege presented in his first book, the *Begriffsschrift*, published in 1879. The importance of this work, however, was not immediately recognized; so before Frege utilized his new logical system to formally demonstrate logicism, he first provided a philosophical prolegomenon, offering a critique of previous conceptions of number, and sketching his own theory informally. This was published in 1884 as *Die Grundlagen der Arithmetik*. The detailed formal proofs were provided in *Grundgesetze der Arithmetik*, volume I appearing in 1893 and volume II in 1903. I provide an account of Frege's logicist project in chapters 3 and 4.

The *Begriffsschrift*, the *Grundlagen* and the *Grundgesetze* were the three books that Frege published in his lifetime, and their overriding goal was to establish logicism. So it is extraordinary that until very recently, discussion of Frege's philosophy – more specifically, his ideas in the philosophy of logic and language and in epistemology and metaphysics – have largely ignored his logicism. Where there has been discussion of his philosophy of mathematics, it has generally been separated off from the rest of his philosophy.¹³ As well as these three books, Frege also published a number of papers, three of the most important being 'Function and Concept', 'On Concept and Object' and 'On Sense and Reference', all published in the years 1891 and 1892, i.e. after the *Grundlagen* and before the *Grundgesetze*. Their aim, though it is admittedly not explicitly stated, is to provide philosophical support to the distinctions relied upon in his logicist project; yet they are discussed as if they are entirely self-standing

essays in the new field of philosophical logic.¹⁴ By discussing these papers in the light of Frege's logicism, I hope to show just what relation they did have to the rest of Frege's work.

What will emerge from chapter 4, where I offer an exposition of the positive part of Frege's logicist project, is the fundamental role that his logical analyses and definitions of number expressions play in his logicism; and much of Frege's subsequent philosophy can be seen as attempts to answer the question as to the status of these analyses and definitions. Those analyses and definitions were already in place; the ideas of his three seminal essays were attempts to *justify* them. It may well be possible to hive off these ideas from their origins in Frege's thinking about his logicism, but any attempt to modify and develop them will be impoverished, and run the risk of seriously distorting his views, if those origins are not appreciated.

Chapter 5 is the central chapter of the book. It is here that we see how Frege's logic (discussed in chapter 2) and his logicism (discussed in chapters 3 and 4) inspired his philosophical ideas. How, for example, did his famous distinction between 'Sinn' and 'Bedeutung' arise? Given his logicism, an answer can be readily given. According to his early conception, two propositions have the same 'conceptual content' iff they are logically equivalent. If Frege's logicism is correct, however, then ' $2^2 = 4$ ' and ' $2 + 2 = 4$ ', for example, are logically equivalent: it can be proved purely logically that if one is true, then the other is true, and vice versa.¹⁵ Yet what we understand by each is different, which we might well express by saying that they *lack* the same 'conceptual content'. So the notion of 'content' certainly requires disambiguation. Whilst Frege believed that arithmetic was reducible to logic, he also held that arithmetic was informative, and this required an epistemic as well as a semantic conception of 'content'.

But there is a more subtle story to be told here too. As I suggest in §5.3, the ambiguity in Frege's early notion of 'content' may well have motivated his fundamental definitions of numbers as extensions of concepts. Frege was aware that those definitions could not be *derived*, which is why he officially offered them merely as stipulations, but they nevertheless require some philosophical justification and it is clear that Frege remained concerned about their status. The distinction between *Sinn* and *Bedeutung* was intended to resolve the problem. Number statements may not seem to us to be statements about extensions of concepts, but the difference lies only at the level of *sense*, not of *Bedeutung*; numbers actually *are* extensions of (logically definable) concepts. But as Frege soon realized, in the case of identity statements that lie at the base of a theory, i.e. axioms and definitions, sameness of sense is required as well as sameness of *Bedeutung*. In his final answer to the problem, therefore, Frege argued that the task of the theorist is to *reconstruct* our notions, the aim being to

provide clear senses to the relevant terms where they had no clear senses before (see §5.5 below).

In chapter 6 I discuss Frege's distinction between *Sinn* and *Bedeutung* in detail. Three particular problems stand out here. Firstly, why did Frege conceive the *Bedeutung* of a sentence as its truth-value? Secondly, what was Frege's position, with regard to names, on the issue of senses without referents? Thirdly, and relatedly, does Frege's account apply as readily to 'simple' proper names as it does to definite descriptions? In all three cases, it is Frege's conception of logic that holds the key to his views; though this is not to say that those views are thereby justified. As I show, to do justice to the issues involved here, further distinctions need to be drawn, distinctions which, whilst building on the underlying schema of the distinction between *Sinn* and *Bedeutung*, in the end require revision or rejection of some of Frege's specific ideas.

According to Frege, the difficulties that arise when applying his fundamental ideas and distinctions to ordinary language show the inadequacies of ordinary language, not the deficiencies in his own views. That he took such an attitude only reinforces the point that Frege was not concerned with developing a theory of meaning for natural language. What he wished to do instead was develop an ideal logical language to *replace* ordinary language, avoiding its inadequacies and capturing 'objective thought' more faithfully; and I discuss some of the problems generated here in chapter 7.

In the final chapter I return to the issue of the tension in Frege's conception of sense, and relate this to the other fundamental tension in his philosophy, which has been more frequently discussed, between the contextualism that was manifested in the *Grundlagen* and his later endorsement of principles of compositionality. What again deserves highlighting is the differences between Frege's own views and those of analytic philosophers who came after him. The idea of analysis as a way of eliminating certain philosophical problems – by showing, in particular, that the surface form of a proposition need not commit us to the existence of objects that are the referents of constituent terms – is notable by its *absence* in Frege's work, despite the fact that such an idea cries out to be used – for example, in showing that objects are not the referents of phrases of the form 'the concept *F*'. Frege does not, in other words, pursue the eliminativist strategy that Russell was to develop so influentially in his theory of descriptions. Once again, we see how the materials are present in Frege's work for use in projects that are now seen as characteristic of analytic philosophy; yet those projects cannot themselves be read back into Frege's own work. The importance of an historical understanding is only too clear, if a fair picture of Frege's philosophy is to be achieved.

0.3 Making Sense Historically

It is often felt that to write accurately and justly about a past philosopher requires a certain amount of sympathy with their philosophical ideas. This might not seem to create a problem for the rational reconstructor, since the aim is precisely to systematize those ideas with which one does have sympathy. But such an approach runs the risk of providing a lopsided account, or at least making it inexplicable why the philosopher could ever have had the ideas with which one does *not* have sympathy. The historical reconstructor, on the other hand, in trying to make those ideas explicable, may simply deny that sympathy is required: in locating the ideas in their original context, all that is necessary is to *report* those ideas, which requires no endorsement by the reporter. But this runs the opposite risk, of providing no *rationale* for those ideas with which one does have sympathy. The dilemma might be expressed succinctly by using a distinction that lies at the base not just of analytic philosophy but of philosophy as it has been perceived by many from the time of Socrates – the distinction between logical or rational *justification* and historical or causal *explanation* (explanation of origins). By focussing on *justification*, the rational reconstructor runs the risk of providing no explanation of certain ideas, and by focussing on *explanation*, the historical reconstructor runs the risk of providing no justification of any of those ideas.¹⁶

How does the dialectical reconstructor avoid these twin dangers? In telling the story of a philosopher's ideas by *thinking them through*, seeing which survive (in whatever transformed way), and which are dropped (however explicitly or implicitly), placing them in a time-frame that is somewhat broader than the life-time of the philosopher and that extends to the present, the dialectical reconstructor can be regarded as providing both rational justification (of the ideas that survive) and historical explanation (of both the ideas that are dropped and the ideas that survive).

It might be objected that what is involved here is the repudiation of the distinction between justification and explanation; and it is worth noting that the distinction between rational and historical reconstruction itself presupposes this distinction. But this distinction, at least as it has typically been understood by the analytic philosopher ('justification' being of far greater importance than 'mere' historical explanation), should certainly be repudiated. There is no such thing as *ultimate justification*: justification only operates within a conceptual framework, and at a certain point (when 'justification' of the conceptual framework itself is at issue), reasons give out – the logical spade is turned – and historical understanding takes over.¹⁷

But such a repudiation is certainly in conflict with one of Frege's most deeply held views. For the emphasis on the distinction between logical justification and historical explanation lay at the heart of the first of his three 'fundamental principles' laid down in the *Grundlagen*: "There must

be a sharp separation of the psychological from the logical, the subjective from the objective' (p. X); and this was a principle to which he adhered throughout his life. Frege had a particular antipathy towards *psychologism* – the view that the investigation of psychological processes held the key to the justification of our beliefs; but it is clear that he regarded *any* attempt at explaining the origin of an idea as irrelevant to issues of justification. Causal, psychological and historical factors are all lumped together into one category which is opposed to that of the logical. 'The description of the origin of an idea should not be taken for a definition, nor should the account of the mental and physical conditions for becoming aware of a proposition be taken for a proof' (ibid., p. VI). Truths, Frege believed, were independent of how anyone came to apprehend them. Were this not so, then there would be as many different truths as there were individual acts of apprehension, and objectivity would be destroyed.

The historical mode of investigation, which seeks to trace the development of things from which to understand their nature, is certainly legitimate; but it also has its limitations. If everything were in continual flux and nothing remained fixed and eternal, then knowledge of the world would cease to be possible and everything would be thrown into confusion. We imagine, it seems, that concepts originate in the individual mind like leaves on a tree, and we suppose that their nature can be understood by investigating their origin and seeking to explain them psychologically through the working of the human mind. But this conception makes everything subjective, and taken to its logical conclusion, abolishes truth. What is called the history of concepts is really either a history of our knowledge of concepts or of the meanings [*Bedeutungen*] of words. Often it is only through enormous intellectual work, which can last for hundreds of years, that knowledge of a concept in its purity is achieved, by peeling off the alien clothing that conceals it from the mind's eye. What are we then to say when someone, instead of carrying on this work where it still seems incomplete, ignores it entirely, and enters the nursery or takes himself back to the earliest conceivable stage of human development, in order there to discover, like John Stuart Mill, some gingerbread or pebble arithmetic! It remains only to ascribe to the flavour of the cake a special meaning for the concept of number. This is surely the exact opposite of a rational procedure and in any case as unmathematical as it could possibly be. No wonder that mathematicians want nothing to do with it! Instead of finding concepts in particular purity near to their imagined source, everything is seen blurred and undifferentiated as through a fog. It is as though someone who wanted to learn about America tried to take himself back to the position of Columbus as he caught his first dubious glimpse of his supposed India. Admittedly, such a comparison proves nothing; but it hopefully makes my point. It may well be that the history of discoveries is useful in many cases as preparation for further research; but it should not aspire to take its place. (*GL*, pp. VII-VIII; cf. *RHC*, p. 109.)

If Frege is right here, then it presents an intriguing problem for the historian of philosophy. Imagine someone wanting to provide an account

of Frege's ideas – in particular, let us say, of the distinction between *Sinn* and *Bedeutung*. If this distinction is valid, then its origins in the work of Frege are entirely irrelevant. What is important is its use within some fully developed and correct theory. A proper account of Frege's (correct) ideas, then, need say nothing at all about Frege himself. Such an attitude would seem particularly appropriate if, as is so in the case of the distinction between *Sinn* and *Bedeutung*, his ideas, though on the right track, require revision and development.¹⁸

Of course, we might mean by 'Frege's ideas' the ideas as Frege himself saw them. Using Frege's own distinction, we might suggest that whilst the analytic philosopher (or rational reconstructor) would be concerned with the *referents* of Frege's philosophical expressions, the historian of philosophy would be concerned with their *senses* – with how Frege himself apprehended those referents. But as Frege himself remarks, those referents might not necessarily have revealed themselves to their discoverer in all their purity – perhaps the discoverer only saw them through a fog dimly; so again there would seem to be little value in the historical approach so conceived.

Now Frege regarded himself, of course, not as the *originator* of a number of important ideas – ideas that were to provide the basis for the development of analytic philosophy – but as the philosopher who had finally managed to achieve knowledge of the concept of number 'in its purity'. With an Hegelian arrogance, Frege clearly saw his own work on the foundations of mathematics as the culmination of centuries of 'enormous intellectual work'. Were this true, then an account of Frege's *ideas* would indeed be an account of *Frege's ideas*. Subsequent philosophy of arithmetic would then simply consist in the exposition and preservation of these ideas. However, as we now know, in the aftermath of Russell's paradox, Frege's work turned out to be only a *starting-point* – of the new discipline of mathematical logic.

Taking the passage from the *Grundlagen* seriously, then, Frege's own work would, at best, be regarded as of only limited value to 'real' philosophical thought, and at worst, be consigned to the waste bin of intellectual life. Fortunately for Frege, however, his underlying view is mistaken. It might seem ironical that an appreciation of Frege's greatness requires the repudiation of one of his deepest beliefs, but genuine appreciation does not preclude criticism. Justification is not the transcendent activity Frege believed: it too operates in a particular context and involves presuppositions that cannot themselves be 'justified' in the same way. This is especially obvious now that the very nature of analytic philosophy is under investigation – where questions have been raised about the 'justification' of the conceptual paradigm itself. Here there is no option but to look at its whole emergence and development historically. Concepts do not exist in a Platonic realm waiting to be revealed in their purity by the culminator of centuries of intellectual effort – whether an Hegelian Titan

or even the fortunate dwarf who sits on the shoulders of the giants of the past. Concepts have their life in human linguistic practices, and are *acquired* by being immersed in those practices and *explained* by understanding those practices.

Most importantly, as we noted in the previous section, logic itself is a human practice with its own historical development. In drawing his absolute distinction between logical justification and historical explanation, Frege assumed that logical laws were transcendently given. As he famously wrote in his foreword to the *Grundgesetze*, the laws of logic, as the laws of truth, 'are not psychological laws, but boundary stones set in an eternal foundation, which our thought can overflow but not dislodge. And because of this they are authoritative for our thought if it wants to attain truth. They do not stand in the relation to thought that the laws of grammar stand to language, so that they express the essence of our human thought and change as it changes.' (*GG*, p. xvi.) However, as Wittgenstein was later to argue, the laws of logic are indeed no more than deeply entrenched rules of grammar. But this is not to say that they have no authority over us. For if we wish to engage in the practices of which they are the rules, then we must abide by them. To argue 'illogically' is not to argue at all. The bridges that hold up our mental lives collapse if the laws of logic are contradicted. Nor is it to say that they are merely 'psychological' – viz. 'subjective' – laws. Frege operated with too crude a subjective/objective dichotomy, leaving out the whole area of the *intersubjective*, which philosophers in the 20th century have, in different ways, and with varying degrees of success, been trying to characterize in developing a more moderate form of objectivism.

But such a conception does allow that the laws of logic may change, or at least be *refined* and their applicability restricted in certain ways. Only if they were somehow repudiated overnight would Frege be right that there would ensue 'a hitherto unknown kind of madness' (*ibid.*). Once again, what we have here is a hermeneutic circle. We reflect on our linguistic practices, and express those reflections in grammatical and logical rules, which in turn shape and direct our linguistic practices. Perhaps when regimented in a certain way, the limitations of certain practices are seen more clearly, and as a result new practices arise, which are in turn codified and even reconciled with the original practices in some more sophisticated theory. Codification (from the writing of dictionaries to the construction of logical systems) is both descriptive and prescriptive: the very act of describing a certain practice has a prescriptive effect, feeding back into the linguistic practices. The understanding of the foundations of logic, then, cannot but be historical, attempting to recover previous practices and appreciating how new ones developed.

As we have noted, the two most significant events in the history of logic

were Aristotle's and Frege's codifications. But neither gave us *the* logic, or even *part of the* logic, since there is no such thing as *the* logic of human discourse.¹⁹ Of course, to understand a *particular* logical theory involves seeing how the whole system works – what its axioms and rules are, and how formalization and proof operate; and I have certainly sought to show in this book how both Aristotle's and Frege's logical systems work. But the philosophical understanding of logic itself – as opposed to particular logical systems – requires a deeper, historical understanding, though one that must undoubtedly involve the detailed appreciation of particular logical systems.

If the understanding of logic requires an historical approach, then so too does our understanding of conceptions of *sense*. Take the semantic conception once again. Two propositions have the same semantic sense iff they are logically equivalent. On the assumption that logical laws are transcendently given, then senses too are transcendently determined; and in his late paper, 'Thoughts', Frege did indeed draw the bizarre conclusion that senses inhabit a separate realm of their own, a view that I call in §7.5 Frege's *semainomenalism*. But if logical equivalence varies according to the logical system, then what counts as the 'sense' of a proposition will also vary. This is not to repudiate objectivity – Frege mistakenly thought that *objectivity* demanded *objects* construed Platonistically – but merely to locate that objectivity in the practices of a linguistic community.

To understand Frege's conception of sense, then, involves understanding the practice that he established; and there is no substitute for *thinking through* his ideas in their historical development. This can be regarded as compatible not with the first 'fundamental principle' of the *Grundlagen*, but with the second, the context principle: 'The meaning of a word must be asked for in the context of a proposition, not in isolation' (p. X). As it stands, this principle applies only to words; but as Frege himself was clearly aware, what *thought* is expressed by a proposition is itself dependent on its context of use. The interpretation of the principle, as well as the question as to Frege's continued adherence to it in his later work, is controversial; but it captures an important insight that has informed subsequent philosophy of language, and suitably generalized, can be regarded as motivating the present project. For it is only by considering Frege's philosophical ideas in their historical context that their content can properly be apprehended.

In seeking to understand the work of a past philosopher, then, the dialectical reconstructor must become a kind of historical anthropologist, attempting to see things as they saw them, yet expressing those perceptions and critically charting the evolution of their ideas using the resources of the present. In establishing his new logical practices, Frege was indeed *making sense* – in forging new conceptual tools, he shaped the discourse in which philosophers now talk of 'sense'; and in attempting to

retrace his steps, we can both deepen our understanding of that discourse and further refine it. With the allusions in the title of this book in mind, then, in making sense of Frege's philosophy, as dialectical reconstructors, we too are making sense in qualified accord with Frege's pioneering achievements.