The Cambridge Handbook of

the Philosophy of Language

edited by **Piotr Stalmaszczyk**

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Contributors

Brian Ball *New College of the Humanities, London, UK*
André Bazzoni *University of Barcelona, Spain*
Antonio Blanco Salgueiro *Complutense University of Madrid, Spain*
Emma Borg *University of Reading and the Reading Centre for Cognition Research, UK*
Piotr Cap *University of Łódź, Poland*
Robyn Carston *University College London, UK*
Bianca Cepollaro *Vita-Salute San Raffaele University, Milan, Italy*
John Collins *University of East Anglia, UK*
Roberta Colonna Dahlman *Lund University, Sweden*
Eros Corazza *The University of the Basque Country, Donostia, IKERBASQUE, Basque Foundation for Science, Bilbao, The Basque Country, Spain, and Carleton University, Ottawa, ON, Canada*
Guillermo Del Pinal *University of Illinois at Urbana-Champaign, USA*
Marta Dynel *University of Łódź, Poland*
Luis Fernández Moreno *Complutense University of Madrid, Spain*
Sarah A. Fisher *University of Vienna, Austria*
Chris Fox *University of Gothenburg, Sweden*
Manuel García-Carpintero *University of Barcelona, Spain*
Peter Hanks *University of Minnesota, Twin Cities, USA*
Daniel W. Harris *Hunter College, the City University of New York, USA*
Leopold Hess *Jagiellonian University, Kraków, Poland*
Ray Jackendoff *Tufts University and Massachusetts Institute of Technology, USA*
Jarosław Jakielaszek *University of Warsaw, Poland*
Kasia M. Jaszczolt *University of Cambridge, UK*
Eleni Kapogianni *University of Kent, UK*
Katarzyna Kijania-Placek *Jagiellonian University in Krakow, Poland*
Michael Losonsky *Colorado State University, USA*
Peter Ludlow *University of Campinas (UNICAMP), Brazil*

Preface

The Cambridge Handbook of the Philosophy of Language constitutes a comprehensive guide to contemporary investigations dealing with the intricate relations between language, philosophy, and linguistics. The volume is divided into six parts. After an introductory chapter which discusses different definitions and descriptions of the field, especially within the analytic tradition (assumed in most contributions), Part I provides an overview of the origins and main stages in the development of philosophy of language; it also offers suggestions for future directions. Part II investigates some selected foundational issues. The chapters concentrate on the relations between language, ontology, and logic, and on the philosophical foundations of language, on issues connected with philosophy of language and mind, and different theoretical perspectives on language and meaning. Part III discusses such fundamental concepts as truth, reference, names, natural kinds, vagueness, and indexicals. The authors not only discuss those concepts but also comment on the current debates and controversies. Chapters in Part IV focus on issues in semantics and pragmatics (within different theoretical approaches), such as entailment, presupposition, implicature, speech acts, events, and also on value judgments, and slurs. Part V is devoted to the philosophical implications of selected linguistic theories (generative grammar, conceptual semantics, Relevance Theory) and of the theory of mental files, and to an overview of the relations between philosophy of language and discourse studies. Finally, chapters in Part VI offer a range of possible extensions to some less traditional areas of investigation, such as the philosophy of argument, the philosophical assumptions explicit and implicit in analyzing denial, deception, irony, and metaphor. This part concludes with chapters on the analytic philosophy of literature, and on the philosophical implications of linguistic relativity. The volume is furnished with a cumulative list of references, which may serve as a comprehensive bibliography for philosophy of language.

The topics discussed in this *Handbook* include notions belonging to the core of any philosophical discussion (e.g. truth, reference, names, propositions), concepts crucial to semantic and pragmatic theories, and also some nonobvious extensions, characteristic of the most recent research (e.g. logicality of language, vagueness in natural language, value judgments, slurs, deception, proximization in discourse, argumentation theory, linguistic relativity); the volume also includes chapters discussing selected linguistic theories and their philosophical implications.

The Cambridge Handbook of the Philosophy of Language is aimed at graduate and PhD students, but it is also meant for all scholars interested in the more philosophical inquiries into language and linguistics, especially different aspects of meaning and language use.

A publication like this would not have been possible without the involvement and joint effort of numerous people. First and foremost, I want to thank all the contributors for accepting my invitation, for their enthusiasm, reliability, and hard work; it has been my pleasure to work with you (a word of warning: I am already looking forward to further projects!).

The very idea of this *Handbook* would not have been possible without the initiative and most helpful suggestions from the publisher. The idea was suggested to me by Helen Barton, whom I would like to thank for constant encouragement and support at every stage of the project; many thanks also to Isabel Collins for her invaluable assistance, and to Jacqueline French for her positive attitude and highly professional copyediting.

I am very grateful to the anonymous reviewers of the project proposals at the initial stages, and to the reviewers of the individual chapters.

Finally, I very much appreciate Martin Hinton's crucial comments on the introductory chapter, Przemek Ostalski's support with technical editorial matters, and Marcin Trojszczak's assistance with compiling the references and the index.

1

Philosophy of Language: Definitions, Disciplines, and Approaches

Piotr Stalmaszczyk

1.1 Introduction: Areas of Investigation

Of the various disciplines which investigate different aspects of human language, this *Handbook* concentrates predominantly on philosophy of language (with some additional discussion of linguistic philosophy and philosophy of linguistics) and, to some necessary degree, also on linguistics. Linguistics, the scientific study of language, is concerned with theoretical and applied analyses of human natural language and with constructing appropriate levels of linguistic representation. Philosophy of language, on the other hand, provides philosophical investigations into the phenomenon of language in general, concentrating especially on the problems of meaning, reference, truth, and understanding. Linguistic philosophy is a philosophical method, an approach to philosophy. And finally, philosophy of linguistics offers philosophical reflections on linguistic inquiries and linguistic theories (brief working definitions of these disciplines and approaches will by proposed before the end of the next section).

In this chapter I provide an overview of different publications devoted to philosophy of language (predominantly in the analytic tradition) in order to reveal the topics and subjects pertaining to the field and to show its width; I also compare individual definitions and descriptions, and propose a set of my own informal definitions of the individual disciplines. Throughout the discussion numerous quotations from sources are given, sometimes in an extended form. Direct contact with sources (and not just summaries and reviews) is beneficial; additionally, it limits the danger of possible distortions of the original formulations.

The chapter also introduces the contents of the volume and concludes with a brief discussion of possible further developments and research options for philosophy of language and some adjacent areas of study. For

the purpose of the forthcoming discussion, I use terms such as *discipline*, *approach*, and *area/field of research* in an intuitive and informal way.[1]

Philosophers quite often point to the bifurcation of philosophy and linguistics; Michael Dummett's observation is typical: "General linguistics ... parted company with philosophy, which had nurtured it, and largely took over the independent subject of philology" (2010: 3–4). Dummett also mentions experimental psychology and logic "disentangling" themselves from philosophy, and, "in yet more recent times, cognitive science has raided philosophical territory and set itself up as a science in its own right" (2010: 4). Massimo Pigliucci traces the development of linguistics (and philosophy of language) within the general context of changes affecting philosophy and science:

> One of the most obvious indications that philosophy has been reinventing itself over the past century or so is the stark onset of a panoply of "philosophies of." "Philosophies of" are the way the field has been responding to the progressive emancipation of some of its former branches: science is no longer natural philosophy, but that simply means that now philosophers are free to philosophize *about* science (and, more specifically, about biology, quantum mechanics, etc.) without *doing* science. The same idea applies to linguistics (and philosophy of language), psychology (and philosophy of the social sciences), economics (and philosophy of economics), and so on.
>
> (Pigliucci, 2017b: 88)

Histories of linguistics, especially within what is known as the "Western Classical Tradition" (Allan, 2009), point to a similar line of development in language studies (with an origin in early philosophical inquiries), though concentrating rather on the stages mentioned already by Ferdinand de Saussure in his *Course in General Linguistics*: grammar, philology, comparative philology, and linguistics proper. As stressed by the Swiss linguist, linguistics proper owes its origin to the comparative and historical studies of the Romance and Germanic languages (Saussure, 1966: 4–5). However, since this *Handbook* focuses on philosophy of language rather than linguistics, the historical development of linguistics will not be discussed any further; interested readers might consult numerous overviews of the subject, e.g. Allan (2009), Harris and Taylor (1997), and Robins (1997). It is worth stressing here that all these studies start with investigating the philosophical roots of contemporary linguistics, explicitly commenting on the legacy of classical philosophy, especially Plato and Aristotle, in accordance with Zeno Vendler's dictum: "at this point, as it often happens

[1] For a comprehensive discussion and appropriate definitions, see Hvidtfeldt (2018), especially chapter 2, on "disciplines and approaches." Formigari (2004) offers a useful "map of the area," i.e. a discussion of philosophy, linguistic philosophy, and the language sciences, within a broad historical context. Losonsky (2006) discusses linguistic turns in modern philosophy, from Locke to Wittgenstein.

in philosophy, we suddenly realize that the path of inquiry we hoped to open is already marked by the footprints of Aristotle" (1967: 194). Keith Allan quotes Vendler and further elaborates:

> if any single individual can be credited with founding the Western Classical Tradition in linguistics it is Aristotle ... Aristotle's footprints are found in many parts of the linguist's garden. His view of language would not be greatly out of place within the discipline of linguistics today. This is remarkable, because his primary interest was not grammatical analysis, but the pursuit of a definition for truth through epistemology and logic, or for the arts of rhetoric and literary composition. Aristotle recognized that language is conventional; that the tokens in the mind for things which human beings perceive are symbolized using different forms in different speech communities. ... It was Aristotle who established the importance of explaining the whole from the nature and relationships of its parts; so, of course, he recognized the compositionality of language. ... Aristotle's analysis of propositional structure, negation, and modality set the grammatical foundations for the Western Classical Tradition in linguistics. (2009: 40)

A quick perusal of selected earlier studies and investigations within philosophy of language (e.g. Searle, 1969; Vendler, 1967), and also introductions and textbooks published within the last fifteen years (e.g. Daly, 2013; McGinn, 2015; Miller, 2018; Morris, 2007; Lycan, 2019a; Szabó and Thomason, 2019) demonstrates that there is a close link between philosophical and linguistic research, and that both the core issues (truth, meaning, reference, understanding) and some less obvious areas (nonliteral uses of language, deception, slurs, properties of discourse) are studied by both disciplines.

A slightly different perspective was offered by Noam Chomsky, who, during a symposium on linguistics and philosophy held at New York University in 1968, explored in his lecture the points of contact between contemporary linguistics and philosophy (in particular, epistemology and philosophy of mind) and concluded:

> To summarize, I doubt that linguistics can provide "a new technique" for analytic philosophy that will be of much significance, at least in its present state of development. Nevertheless, it seems to me that the study of language can clarify and in part substantiate certain conclusions about human knowledge that relate directly to classical issues in the philosophy of mind. It is in this domain, I suspect, that one can look forward to a really fruitful collaboration between linguistics and philosophy in coming years. (Chomsky, 1972: 172)

Different aspects of the linguistics and philosophy interface have been extensively discussed on several occasions (to be mentioned below), most recently in the contributions to Altshuler (in press); this *Handbook* also engages in the current debates.

1.2 Defining the Disciplines and Approaches

John Searle, a prominent figure in American philosophy, especially the philosophy of language (earlier), and the philosophy of mind and philosophy of society (more recently), identified in the opening paragraph of his *Speech Acts* (1969) the following questions as forming the subject matter of the philosophy of language:

> How do words relate to the world? ... What is the difference between saying something and meaning it and saying it without meaning it? ... How do words stand for things? What is the difference between a meaningful string of words and a meaningless one? What is it for something to be true? or false? (Searle, 1969: 3)

In the introduction to his later book *Expression and Meaning*, Searle adds another question: "one of the most obvious questions in any philosophy of language is: how many ways of using language are there?" (1979: vii). All these questions still remain foundational for the discipline, as observed more recently by Davies (2006: 29): "foundational questions in philosophy of language concern the nature of meaning, understanding, and communication." Scott Soames observes that the foundational concepts of philosophy of language (and philosophy as a whole) are "truth, reference, meaning, possibility, propositions, assertion, and implicature" (2010b: 1). For Michael Morris (2007: 1), the three basic questions of the philosophy of language concern language, meaning, and the relation between words and meaning; Daly (2013) extends the list to ten key questions focusing on meaning, reference, understanding, truth, and thoughts. Similar questions are also provided by Colin McGinn, for whom philosophy of language is "concerned with the general nature of meaning" (2015: 1). Alex Miller observes that language has been a major topic of philosophical concern and points to the systematic dimensions of investigation:

> philosophy of language deals with some of the most profound and difficult topics in any area of philosophy ... Philosophy of language is motivated in large part by a desire to say something *systematic* about our intuitive notion of meaning. (2018: xi, 8)

This systematic dimension is also stressed by Hans-Johan Glock, who, in contrasting linguistic philosophy and philosophy of language (a topic to be mentioned again below) remarks that "philosophy of language requires a systematic account of language" and that "philosophy of language is interested in the workings of actual languages rather than in the construction of artificial ones" (2008: 52). For many philosophers, especially within the analytic tradition, philosophy of language is mainly concerned with meaning, which has considerable consequences for philosophy in general:

> For Frege, as for all subsequent analytical philosophers, the philosophy of language is the foundation of all other philosophy because it is only by the analysis of language that we can analyse thought.
>
> (Dummett, 1978: 441–442)

> The concept of meaning is the bridge between the philosophy of language and the philosophy of thought; it is obviously because words have meanings that thoughts can be expressed in language and that the theory of meaning is a path – perhaps the most direct path – to an analysis of the contents of our thoughts. Likewise the concept of truth is the bridge between the philosophy of language and metaphysics, because metaphysics is that branch of philosophy that aims at giving a coherent picture of the reality we inhabit. ... The concepts of meaning and of truth are inextricably linked: they can only be explained *together*. Their explanation will be comprised in a theory of meaning. That is why I continue to believe that the philosophy of language is the foundation-stone of all philosophy.
>
> (Dummett, 2012: 21)

Although Dummett's claim that the philosophy of language is the foundation of all philosophy is far from being generally accepted (see, e.g., Searle's, Williamson's, and Cappelen's comments quoted in the final section of this chapter), the study of meaning, and the relations holding between meaning and truth, meaning and thought, meaning and understanding, etc., is crucial for philosophy in general.

One of the most recent (and advanced) introductions to the field, Szabó and Thomason (2019), is divided into three parts dealing with philosophy of semantics, philosophy of pragmatics, and meaning as a philosophical problem. Very characteristically, *The Blackwell Guide to the Philosophy of Language* (Devitt and Hanley, 2006) is divided into two major parts, devoted to "meaning" and "reference." The former investigates issues such as thought and meaning, meaning skepticism, formal semantics, speech acts and pragmatics, propositional attitudes, conditionals, and vagueness, whereas the latter focuses on descriptions, indexicals, anaphora, and truth. Also, most of the canonical texts collected in four volumes in the *Critical Concepts in Philosophy* series (Martinich, 2009b) clearly show that problems of meaning and reference remain the core of philosophy of language, even if extended to different aspects of language communication and understanding. On the other hand, *The Oxford Handbook of Philosophy of Language* (Lepore and Smith, 2006) is divided into parts dealing with "the nature of language," "the nature of meaning," "the nature of reference," "semantic theory," "linguistic phenomena," "varieties of speech act," and "the epistemology and metaphysics of language." Another recent major work, *Companion to the Philosophy of Language* (Hale, Wright, and Miller, 2017), is divided into parts focusing on the following topics: "meaning and theories of meaning," "language, truth, and reality," and "reference, identity, and necessity." Lycan's (2019a) contemporary introduction to philosophy of language (the third edition) extends the

field considerably, though meaning and problems related to meaning remain the core. The four parts of Lycan's volume discuss reference and referring, theories of meaning, pragmatics and speech acts, and finally, the expressive and the figurative (very significantly, in the first and second edition of Lycan's introduction, this last part was entitled "The dark side" and dealt with metaphor only).

One of the most recent introductory textbooks, Green (2020), apart from the more "traditional" chapters on meaning, sense, reference, context, and speech acts, includes also chapters on "despicable discourse" (discussing, among other things, slurs and epithets) and "artful language" (with sections on fiction, metaphor, irony, and jokes).

A very interesting list of topics belonging to the field is presented in Swart's introduction to philosophical and mathematical logic:

> the difference between use and mention, Frege's notions of Sinn (sense) and Bedeutung (reference), Mannoury's significs, speech acts, definite descriptions, Berry's and Grelling's paradox, the theory of direct reference, Kant's notions of analytic versus synthetic, logicism, logical positivism, presuppositions, Wittgenstein on meaning, syntax – semantics – pragmatics, conversational implicature, conditionals, Leibniz, de dicto – de re distinction, and grammars. (Bergmans et al., 2018: 329)

The above choice might be motivated by the fact that the "book was written to serve as an introduction to *logic*, with special emphasis on the interplay between logic and *mathematics*, *philosophy*, *language* and *computer science*" (Swart, 2018: xi), and one of the aims of the chapter on philosophy of language is to show the applicability of philosophical logic and possible world semantics to that study.

Whereas Swart concentrates on the applicability of philosophical logic, Emma Borg concentrates on the "applied dimension" of philosophy of language itself:

> I think philosophy of language might ... be construed as an applied discipline through the methodology and ontology it adopts ... In this sense, philosophy of language is applied not only in virtue of studying some specific part of language but more generally because as a theoretical discipline it stands in a certain relation to empirical data. (2016a: 180)

Jennifer Saul comments on yet another turn within the discipline, and the shift to "consider the ethical and political dimensions of language," which has consequences for the choice of the central notions:

> Now ... philosophers of language are working to understand hate speech, political manipulation, propaganda and lies. These issues – vital in the real world – have not yet become central to philosophy of language. But they are at least a part of the conversation, in a way that they weren't twenty years ago. With this shift (though not wholly as a result of it), has come an

> increasing philosophical interest in matters other than semantic content and reference. Implicature, accommodation, and speech acts are the central notions in these new debates, rather than semantic content.
>
> (2018: 360–361)

Saul also pays attention to "covert speech acts," such as "dogwhistles," brainwashing, insinuating, flattering, and other acts of deception; the phenomenon of covert exercitives is further studied by McGowan (2018, 2019). Such covert acts provide evidence for research covering both formal semantics (cf. Attardo, 1999) and more recent areas of research connected with formalized analyses of intentions, applied philosophy of language, and analyses of "despicable discourse" (see also Hess, Chapter 25, this volume, on the semantic and pragmatic analyses of slurs, and Dynel, Chapter 33, on deception).

This brief perusal of selected textbooks and companions demonstrates that the field of philosophy of language is constantly expanding, a tendency visible also in the choice of topics discussed in the present *Handbook*. It also clearly demonstrates that philosophy of language is far more than "analyzing alleged relations between expressions and things," which is Chomsky's opinion (connected with his skepticism about referential semantics):[4]

> A good part of contemporary philosophy of language is concerned with analyzing alleged relations between expressions and things, often exploring intuitions about the technical notions "denote," "refer," "true of," etc. said to hold between expressions and something else.
>
> (Chomsky, 2000a: 130)

The approaches and divisions mentioned so far, characteristic of the analytic tradition, are quite close to Umberto Eco's position in his discussion of semiotics and philosophy of language. He mentions among the problems raised by philosophy of language the "classical issues such as meaning, reference, truth, context, communicational acts (be they vocal or else), as well as many logical problems as analytic vs. synthetic, necessity, implication, entailment, inference, hypothesis, and so on" (Eco, 1984: 7) and stresses that: "a general semiotics is simply a philosophy of language which stresses the comparative and systematic approach to languages (and not only to verbal language) by exploiting the result of different, more local inquiries" (Eco, 1984: 8). However, the Italian semiotician also focuses on other, more phenomenologically oriented issues, as according to him: "Every philosophy of language . . . must ask itself not only 'To what do we refer when we talk, and with what degree of reliability?' (a problem

[4] Hence Chomsky's (otherwise puzzling) claim: "It is possible that natural language has only syntax and pragmatics" (2000a: 132). He further explains: "natural language has no semantics in the sense of relations between symbols and mind-independent entities . . . it has syntax (symbol manipulation) and pragmatics (modes of use of language)" (Chomsky, 2013b: 44). On semantics in generative grammar, see Chapter 21 by Jakielaszek, this volume, and the references therein.

certainly worthy of consideration) but also 'What makes us talk?'" (Eco, 1999: 12–13). Eco also comments on problems with providing an appropriate definition of philosophy of language:

> It is rather difficult to provide a "catholic" definition of philosophy of language. ... I am not sure that a general semiotics can answer all the questions raised during the last two thousand years by the various philosophies of language; but I am sure that all the questions a general semiotics deals with have been posited in the framework of some philosophy of language. (1984: 4)

Notwithstanding Eco's objections, a brief overview of different definitions and descriptions is both necessary and unavoidable. Out of numerous older and most recent definitions, the descriptions proposed by Searle in the introduction to an early anthology of texts in philosophy of language remain close to the approach advocated in this *Handbook*:

> Linguistic philosophy consists in the attempt to solve philosophical problems by analysing the meanings of words, and by analysing logical relations between words in natural languages. This may be done in order to solve such traditional philosophical problems as those concerning determinism, scepticism, and causation; or it may be done without special regard to *traditional* problems but as an investigation of concepts for their own interest, as an inquiry into certain aspects of the world by scrutinizing the classifications and distinctions we make in the language we use to characterize or describe the world. The philosophy of language consists in the attempt to analyse certain general features of language such as meaning, reference, truth, verification, speech acts, and logical necessity.
>
> "The philosophy of language" is the name of a subject matter within philosophy; "linguistic philosophy" is primarily the name of a philosophical method. But the two, method and subject, are intimately connected. (Searle, 1971: 1)

A complementary approach to the relation between philosophy of language and linguistic philosophy (and linguistics) was offered by Ian Mackenzie (1997: ix), who defined the discussed areas of study in the following way:[5] "Linguistics is the empirical study of natural language. Philosophy of language is concerned with the underlying nature of the phenomena that linguists study. And linguistic philosophy is an approach

[5] Typical definitions of linguistics focus on the discipline's "scientific approach to language," cf. the following formulations from three different, highly influential textbooks: "General linguistics may be defined as the science of language" (Robins, 1989: 1); "Linguistics is the scientific study of human natural language" (Akmajian et al., 1995: 5); and "Much is unknown about the nature of human languages, their grammars and use. The science of linguistics is concerned with these questions" (Fromkin, Rodman, and Hyams, 2011: 34). A different perspective, also with huge philosophical potential, is offered within functional grammar: "Linguistics is the study of how people exchange meanings through the use of language" (Halliday, 1994: 14). This last definition is connected with the conception of language in Hallidayan Functional Grammar, where it is understood to be a systematic resource for expressing meaning in context (see Halliday, 1978, 1994).

philosophy of language than the philosophy of linguistics include intensional contexts, direct reference, and empty names" (Scholz et al., 2020).

1.2.1 Definitions and Systematicity

The above discussion points to one important conclusion: it is very difficult to draw clear lines between the different disciplines. Even though, to use Searle's words, "the subject matter" and "the method" are intimately connected, it is still necessary to work out definitions distinguishing the two. To put it crudely: both linguistics and philosophy of language are concerned with language; however, whereas philosophy of language is concerned with *language* (both natural and formal), the subject matter of philosophy of linguistics is not language but rather *linguistics*. Furthermore, language as the subject matter of linguistics refers in this discussion to *human natural language* (as in the textbooks quoted in note 5, above), but language as the subject matter of philosophy of language is understood here (and in the definitions which follow) as both *natural human language and formal languages*. This latter point is in accordance with the explanation provided by Soames (2010b 1): "By *language*, I mean both natural languages like English, and invented languages like those of logic and mathematics"; see also Richard Montague, who opened his discussion of Universal Grammar in the following way:

> There is in my opinion no important theoretical difference between natural languages and the artificial languages of logicians; indeed, I consider it possible to comprehend the syntax and semantics of both kinds of languages within a single natural and mathematically precise theory.
>
> (1970c: 222).

Montague's approach to grammar resulted in the development of modern formal philosophy of language, in which syntax, semantics, and pragmatics of natural language are considered to be branches of mathematics rather than psychology (see Thomason, 1974: 2). It needs to be stressed here, that Montague's Universal Grammar is a "universal theory of grammar" (just as "topology is a universal theory of geometry", cf. Thomason, 1974: 3), not to be confused with Chomskyan Universal Grammar, the "theory of the initial state of the language faculty" (Chomsky, 2000a: 73), the "genetically determined character of language" (Chomsky, 2016: 11).

Several definitions and descriptions quoted throughout this chapter mention *systematicity* of analyses as a crucial factor in philosophy of language (and in linguistics).[7] It is possible to consider systematicity

[7] In a similar vein, *logic* may be defined as the systematic study of valid arguments and argumentation; indeed, such an approach to describing logic is fairly common; see, for example, Smith (2020: 1): "The core business of logic is the systematic evaluation of arguments for internal cogency"; and Newton-Smith (1985: 2): "Logic is the systematic study of valid arguments." See also Quine's ostensive definition of logic "with a discursive definition of the same subject: . . . logic is the systematic study of the logical truths" (1986: vii).

(understood for the purpose of these remarks as including also theoretical and empirical aspects) as the unifying element of the following general definitions of the four disciplines and approaches discussed throughout this chapter, and relevant for the whole *Handbook*:

- *Linguistics* is the systematic study of human natural language.
- *Philosophy of language* is the systematic study of foundational issues concerned with the nature and properties of language; an investigation of universal properties of language (natural human language and formal languages). It is the name of a discipline within philosophy.
- *Philosophy of linguistics* is a systematic philosophical reflection on the status of linguistic theories and linguistic investigations. It is a branch of philosophy of science.
- *Linguistic philosophy* is a systematic approach to philosophy. It is the name of a philosophical method.

Thus understood, philosophy of language constitutes one of the (sub) disciplines of philosophy, together with metaphysics and epistemology (cf. Strawson, 1992), philosophy of science, philosophy of mind (cf. Burge, 1992; but see Searle, 1979, 1983, 2004 for an attempt at grounding philosophy of language within philosophy of mind), and philosophy of logic (on the status of logic, philosophy of logic, and philosophical logic, see Haack, 1978; Burgess, 2009; and Cohnitz and Estrada-González, 2019).[8] Philosophy of linguistics could be viewed as "the meta-level proper of linguistic theories" (see Chapter 7 by Kasia Jaszczolt, this volume, especially §7.2; see also Ludlow 2011, on philosophy of generative linguistics); linguistic philosophy in this perspective might be considered as the "meta-level" of philosophy of language. For further studies on the linguistics/philosophy interface, see the contributions in Harré and Harris (1993), Murasugi and Stainton (1999), and Altshuler (in press). On some problems with drawing a boundary between linguistics and philosophy of language, from the perspective of speech act theory, see Searle (1979: 162–163).

I am not including in this presentation one more possible discipline/approach, namely *philosophical linguistics*. One of the very few major studies on this subject defines it as "a philosophical mode of both elucidating and contributing to linguistic investigation" (Kasher and Lappin, 1977: iii), which seems to equate its scope with that of philosophy of linguistics. Another topic missing from these considerations would be connected with the consequences of providing different definitions of language (not limited to the natural/formal distinction mentioned above) for the proper understanding and scope of philosophy of language and other disciplines and approaches. For some comprehensive discussion within linguistics and philosophy of language, see the different ontological proposals

[8] Interesting insights may be also found in studies discussing the relations holding between philosophy and literature vs. philosophy of literature, see Hagberg and Jost (2010), especially Part I, and Chapter 36 by Jukka Mikkonen, this volume.

presented and advocated in Harris (1993), Jackendoff (1983, 1995, 2002, 2007), Katz (1966), Pateman (1983), Santana (2016), Searle (1979, 1983, 2008b, 2010), Tomasello (2003, 2008), and also numerous studies by Chomsky (e.g. 1965, 1972, 1980, 1986, 2000a, 2009, 2012, 2016), where the concepts of language and linguistics are discussed, analyzed, and reanalyzed.

1.3 Overview of the Volume

Not only providing a "catholic" definition of philosophy of language is difficult (cf. Eco, 1984: 4); but so is selecting appropriate topics (especially those outside the core) and areas of research for the purpose of including them in *The Handbook of the Philosophy of Language*, and providing a coherent and well-motivated division into parts has been a considerable challenge. Additionally, establishing which elements belong to the core is far from obvious – a brief comparison of some recent handbooks and companions demonstrates that intuitions and principles of selection may vary considerably.[9] Ultimately, I have decided to divide the *Handbook* into six parts. Part I provides an overview of the past and present of the philosophy of language; additionally, it offers suggestions for possible future developments of the discipline. Part II investigates selected foundational issues in philosophy of language and different theoretical perspectives on language and meaning. Part III discusses such fundamental concepts as truth, reference, names, natural kinds, vagueness, and indexicals. The authors not only discuss those concepts but also comment on the current debates. Chapters in Part IV focus on issues in semantics and pragmatics (within different theoretical approaches), such as entailment, presupposition, implicature, speech acts, speech actions, events and event semantics, normativity of meaning and content, value judgments, and also slurs. Part V is devoted to philosophical implications of selected linguistic theories (generative grammar, Conceptual Semantics, Relevance Theory); it also discusses the theory of mental files, and the relations between discourse studies and philosophy of language. Finally, chapters in Part VI offer an overview of possible extensions to the some less traditional areas of investigation, such as the philosophy of argument, the concepts and theories of denial, deception, irony, and metaphor. The last two chapters are devoted to the analytic philosophy of literature, and to the philosophical implications of linguistic relativity.

[9] For example, *The Routledge Companion to Philosophy of Language* includes in its Section I ("Core Topics") such items as extension and intension, semantics and pragmatics, presupposition and implicature, meaning and communication, but also some topics probably less expected under the heading of "core," such as focus and intonation, and truth and reference in fiction.

1.3.1 The Past, Present, and Future of Philosophy of Language

The three chapters in Part I look at the past, present, and future of the philosophy of language. They start with a brief overview of relevant developments from ancient Greek philosophy, throughout medieval and Renaissance philosophy, to early and late modern philosophy (Chapter 2), next, concentrate on Frege and the rise of analytic philosophy (Chapter 3), and finally, offer new insights for future developments (Chapter 4).

S. H. Rosen, in his discussion of Thales and the beginning of philosophy, observed that "the problem of the origin of philosophy is implicit in each endeavor to understand what philosophy *is*" and that "to ask: how does philosophy originate? is to ask: what is philosophy?" (1962: 48; 55). Rosen's comment on philosophy in general can be easily extended to philosophy of language. It is therefore obvious that a volume concentrating on recent developments and the very scope of philosophy of language has to provide some background discussion of the historical developments which have shaped, and are still shaping, the discipline (see also the remarks and references in §1.1, above). Accordingly, Michael Losonsky opens Part I with an overview of the history of the philosophy of language "before Frege." He demonstrates that within the European tradition the *propositional content* plays a central role in the philosophy of language. Discussion of this issue had a recognizable shape in Plato, Aristotle, the Stoic philosophy, and different medieval approaches to what is said (from Augustine, through Abelard, to Scholasticism). An important feature of Stoic philosophy of language is the sharp distinction between *lekta*, or what is expressed with language, and the extra-mental object or event to which meaningful speech refers. Stoic philosophy of language sharpens Aristotle's distinction between the structure of meaning and the grammatical structure of speech, noticing that the same grammatical sentence can express different semantic forms, for instance, statements as well as commands. Losonsky demonstrates that in doing so and distinguishing *lekta* as components of linguistic meaning, the Stoics had a rudimentary notion of the propositional content that plays a central role in the philosophy of language of Gottlob Frege, and in the subsequent developments in twentieth-century philosophy of language. As Losonsky stresses, Scholasticism anticipated the modern notion of reference and referential meaning by distinguishing another crucial component of meaning, *supposition*; it was also aware of the distinction between extension and intension. Renaissance thinkers moved away from logical inquiries and located meaning with the pragmatic properties of language use (anticipating some modern debates). Next, Losonsky devotes considerable attention to early modern philosophy (Bacon, Hobbes, Locke, Leibniz, Cartesian Port-Royalists) and late modern philosophy (Condillac, Herder, Kant, Hamann, Humboldt, Mill), preparing ground for a discussion of Frege and analytic philosophy in Daniel Harris' chapter. While English philosophy in the seventeenth century emphasized the ways in which the mind

mirrors language, on the European continent in the early modern period the idea that language mirrors nonconventional mind continued to flourish in the Cartesian tradition. In the nineteenth century, Humboldt's work directed attention to the phonological and syntactic structures of natural languages (and to the variety of natural languages), whereas Mill restarts the concern for semantic structure.

Contemporary semantic study of formal languages grew out of work by Gottlob Frege and Bertrand Russell on the foundations of mathematics. Their pursuit was logicism, the attempt to reduce mathematics to purely logical concepts and axioms; however, the results of this enterprise – the creation and investigation of formal languages – have had long-lasting consequences for modern philosophy of language. And conversely, the linguistic turn, originating with Frege's context principle, inspired analytic philosophy:

> A succinct definition would be: analytical philosophy is post-Fregean philosophy. Frege's fundamental achievement was to alter our perspective in philosophy, to replace epistemology, as the starting point of the subject, by what he called "logic." What Frege called "logic" ... embraced precisely what is now called "philosophy of language" ... in studying formalised language, we are studying the ideal which natural language strives after, but fails to attain. Thus we may characterise analytical philosophy as that which follows Frege in accepting that the philosophy of language is the foundation of the rest of the subject. (Dummett, 1978: 441)

Also Alfred Ayer contributed, in his *Language, Truth and Logic*, to shifting the focus towards the linguistic character of the propositions of philosophy:

> the philosopher, as an analyst, is not directly concerned with the physical properties of things. He is concerned only with the way in which we speak about them.
>
> In other words, the propositions of philosophy are not factual, but linguistic in character – that is, they do not describe the behaviour of physical, or even mental, objects; they express definitions, or the formal consequences of definitions. (1946: 57)

An even more radical movement, from philosophy to logical syntax, was advocated by Rudolf Carnap: "*Philosophy is to be replaced by the logic of science* – that is to say, by the logical analysis of the concepts and sentences of science, for *the logic of science is nothing other than the logical syntax of the logic of science*" (1937: xiii; italics in the original). Though Carnap's work was important for formal semantics, his more radical demands found, on the long run, little following in philosophy of language. For a general discussion of the linguistic turn and analytic philosophy, see Rorty (1967; and a different view in 1992), Dummett (1993b), Losonsky (2006), Potter (2020), Soames (2003a), Williamson (2004), and the references therein; see also the brief comments in § 1.3.2, below. Frege's legacy in the philosophy of language and philosophy of mind is further discussed by Eros Corazza in Chapter 6.

1.3.2 Some Foundational Issues

Part II investigates selected foundational issues in contemporary philosophy of language; the individual chapters concentrate on the relations between language, ontology, and logic (Chapter 5), Frege's legacy in the philosophy of language and mind (Chapter 6), on philosophical foundations of language (Chapter 7), different perspectives on language and semantics (Chapters 8 and 9), and on the Logicality of language (Chapter 10).

Formal semantics aims to provide a comprehensive account of the meaning of language in a rigorous formal framework, and thus one of its key objectives is to find systematic ways of characterizing judgments about natural-language expressions, such as truth, and the inferential relationships between such judgments. Chris Fox considers in his chapter the various philosophical and methodological questions that arise in the formal analysis of the semantics of language. He observes that while various ontological categories may be mentioned in such accounts, the corresponding formalization typically reduces the narrative to one that is expressed in set theory. As a consequence, ontological distinctions are collapsed. This potentially leads to some counterintuitive consequences in relation to the analysis of numbers in set theory. Hence, the question arises as to whether such formalizations are faithful, both to ontological distinctions in general and to the narrative of the semantic theory in particular. An alternative way of proceeding is to consider logical formalisms that are sympathetic to the ontological assumptions and intuitions that we have about the world, or that appear evident in the way we use and interpret language, which may require a different perspective on the nature and role of logic. Recent work on language analysis has sought to develop models of semantic interpretation based on distributional, vector-space models. This raises further questions about the subject matter of semantics, as well as the ontological status of the entities used in the semantic interpretation. It also highlights how the ontological framework used can depend upon both the methodology and the intended purpose of a semantic theory. Fox concludes that regardless of the kind of semantic analysis adopted, it is important to consider the relevance and nature of ontological aspects of the analysis, and to acknowledge the fundamental role played by the narrative in characterizing the intended interpretation of the formal theory. Some other aspects of formal semantics (and generative grammar) are discussed by Jarosław Jakielaszek in Chapter 21.

As mentioned above, the legacy of Frege is not limited to formal logic and philosophy of mathematics. As Dummett observed, for "Frege, as for all subsequent analytical philosophers, the philosophy of language is the foundation of all other philosophy because it is only by the analysis of language that we can analyse thought" (1978: 442). Paul Pietroski has remarked that Frege "bequeathed to us some tools – originally designed

for the study of logic and arithmetic – that can be used in constructing theories of meaning for natural languages" (2005a: 29–30). The "Fregean tools" still prove useful in analyzing the fundamental issues of sense and meaning, and his "philosophy of language ... remains intensely vital today. Not since medieval times has the connection between logic and language been so close" (Mendelsohn, 2005: xviii). Furthermore, Alex Miller noticed the

> direct connection between the philosophy of truth and the philosophy of language forged by Frege's influential idea that the sense of a sentence is its truth-condition, and that since understanding a sentence is a matter of knowing its sense, understanding a sentence is a matter of knowing its truth-conditions. (2018: 3).

As already noted above, Scott Soames observed that Frege's achievements "were the starting points for the stunning development of mathematical logic in the twentieth century, and for the use of logical ideas and techniques in the study of natural languages" (2010b: 7), and Michael Potter pointed out that "one of the most important contributions made by Frege was to place language at the center of philosophical, and in particular metaphysical, inquiry by recognizing its importance as a route to the structure of our thinking about the world" (2012: 853). In the same vein, Eros Corazza, in the opening section of his chapter, stresses that it is difficult, if not impossible, to overstate the contribution Frege bestowed upon the development of the philosophy of language and mind in the last century, not to mention his contribution to logic and the philosophy of mathematics. Corazza focuses on Frege's legacy in the philosophy of language and mind, and discusses in more detail two issues: the problem of cognitive significance, and the problem of substitution *salva veritate* of co-referential terms embedded in attitude ascriptions. In so doing, he traces the developments of Fregean thought, highlights some difficulties that the framework faces, and discusses developments or possible strategies that have since been proposed to handle the two problems. In mentioning some of the shortcomings of the Fregean approach, the author notices that Frege was more interested in an ideal language, a conceptual notation that would be suited to sciences, logic in particular (a point also discussed by Daniel Harris in Chapter 3). Corazza concludes that the remarks Frege made concerning natural language have been the starting point of a rich and fruitful debate that inspired and keeps inspiring generations of philosophers and linguists alike. The Fregean sources of contemporary theories of reference are discussed by Genoveva Martí in Chapter 12, and the Fregean approach to propositional content is analyzed by Peter Hanks in Chapter 19. Furthermore, Frege's stance on normativity of meaning is briefly discussed by Alex Miller in the conclusion to Chapter 23, whereas his descriptivism is critically reviewed by François Recanati in Chapter 29.

Theories of semantics and pragmatics rely on foundational questions that address the nature of meaning in natural language and the relations linguistic structures bear to human conceptual structures and to the world. Kasia Jaszczolt investigates the philosophical foundations of meaning, focusing on metasemantics and metapragmatics. In an earlier monograph, she described semantics as "representing conceptual structures that rely not only on natural language expressions but also on other ways of conveying intended meanings," and metasemantic inquiry as one which "underlies the search for the proper understanding of compositionality, the object of truth-conditional analysis, metaphysics of reference, as well as, and most importantly, the scope of semantic theory itself" (Jaszczolt, 2016: vii, viii). In this chapter, she discusses the goals and scope of metasemantics and assesses its role in determining the power of semantic theories and also in determining what count as semantic facts. After introducing the issue of metatheoretic inquiries, and addressing the question of the semantics/pragmatics boundary disputes, she moves to the goals and scope of metapragmatics. Whereas metasemantics is also dubbed "foundational semantics" or "the metaphysics of meaning," metapragmatics concerns itself with metaphysics of communication and with foundational questions about communication. Since metapragmatics is not yet a well-established label, Jaszczolt discusses some of the currently adopted uses of the term, and the relation between metasemantics and metapragmatics on the one hand and philosophy of language on the other, pointing out that methods in semantics and pragmatics are always dependent on the answers to foundational questions settled by the first two. The author stresses that, as such, experimental method and other methods used in semantic and pragmatic analysis are never in competition with philosophy of language (and philosophical semantics and pragmatics) but act as executors of their research programs. She also discusses the challenges to the Gricean program and concludes that rival approaches either can be incorporated as its extensions or are in pursuit of different goals and as such are not in competition with it. Some consequences of a normative perspective on metasemantics are discussed by Manuel García-Carpintero in Chapter 22.

Within philosophy of mind there are two principal positions on contents of attitudes (such as beliefs, intentions): externalism and internalism. According to externalism those contents depend predominantly on items in the external world, and they can be individuated by our causal interactions with the natural and social world. According to internalism, on the other hand, those contents are individuated by the properties of our bodies (such as our brains). Internalism proposes that our contents locally *supervene* on the properties of our bodies. Within philosophy of language truth-conditional semantics standardly receives an externalist gloss, under which a theory entails or presupposes the worldly entities that might make true the sentences of a language at issue. John Collins

explains in his chapter how an internalist approach, which simply denies the externalist entailments and presuppositions satisfies the actual explanatory desiderata of semantics. Such internalism does not deny that utterances are made true or false by an external world but only denies that the explanatory ambitions of semantics is world-involving as opposed to a specification of linguistic constraints upon truth conditions. To this extent, the chapter commends a rapprochement between internalist and externalist interpretations of semantic theory. Collins claims that the essential import of much externalist thinking about language can be accommodated by an internalist perspective; likewise, the essence of internalism should be amenable to externalism, and that we need to focus on what is proper to language, rather than wider thought, and construe internalist/externalist disputes as being about explanation rather than metaphysics. Collins concludes his chapter observing that internalism is a doctrine about the proper reach of explanation rather than a constitution story about properties or kinds individuated by commonsense notions of language or meaning. The philosophical consequences of this kind of rapprochement are deep and far-reaching, and currently animate many novel inquiries into both metaphysics and semantics. Another aspect of the internalist vs. externalist debate is discussed in Chapter 12 by Genoveva Martí, in the context of theories of reference.

Contextual information may affect the contents carried by linguistic utterances in a number of different ways. Emma Borg and Sarah Fisher consider five broad positions, which lie along a spectrum from formalist to use-based approaches: semantic minimalism, indexicalism, contextualism, semantic relativism, and occasion-sensitivity. According to semantic minimalism, context plays only a very limited role in determining the semantic content expressed by a sentence. Indexicalism seeks to expand the set of context-sensitive elements in language. According to contextualism, contextual effects on contents can operate independently of any linguistic element. Semantic relativism treats many contextual effects as affecting assessments of truth rather than assessments of content, and finally, occasion-sensitivity is the idea that meaningful contents are always essentially bound up with contexts of use. Each of the five approaches takes a distinct stance on how to balance the linguistic and communicative aspects of utterance meaning. Borg and Fisher trace the core debate back to a tension in Grice's dual-aspect notion of "what is said," which seeks to align the conventional meaning of a speaker's words with what the speaker intends to communicate by using them. The theoretical merits of each position are discussed in turn. Finally, reflecting the recent applied turn in much philosophy of language, the authors consider how this debate on semantic content and utterance context bears on a range of contemporary real-world questions, which go beyond the purely philosophical. They also stress that the applied issues discussed in this chapter are

deeply intertwined with research in the social sciences. In this way, contemporary philosophy of language is itself becoming increasingly contextualized and therefore the repercussions of different decisions on how to model semantic content and utterance context stretch far beyond the boundaries of pure philosophy. These observations are in line with Borg's earlier claims, quoted above, connected with the applied dimension of philosophy of language ("applied not only in virtue of studying some specific part of language but more generally because as a theoretical discipline it stands in a certain relation to empirical data," Borg, 2016a: 180). Some issues pertinent to this understanding of applied philosophy of language, in connection with contemporary discourse studies, are discussed by Piotr Cap in Chapter 30. Alexander Miller offers in Chapter 23 a complimentary look at the normativity of meaning and content; Katarzyna Kijania-Placek discusses indexicality and contextual involvement (in Chapter 14).

Whereas Chris Fox (Chapter 5) discussed philosophy of language, ontology, and logic, Guillermo Del Pinal looks at the Logicality of language, Semantic Minimalism, and Contextualism. Logicality of language is the hypothesis according to which the computational system that underlines human linguistic competence has access to a "natural" logic (that can identify and filter out expressions that have trivial meanings – true/false in all possible worlds or situations). This hypothesis helps explain otherwise puzzling patterns concerning the distribution of many functional terms and phrases. Despite its promise, however, unrefined implementations of Logicality vastly overgenerate assignments of strict unacceptability. In this chapter, Del Pinal discusses various responses to this overgeneration problem, focusing in particular on their implications for traditional philosophical debates about the nature of logical form. Specifically, Semantic Minimalism and Contextualism – which can be construed as distinctive hypotheses about the degree and kinds of context-sensitivity present at the level of logical form – suggest different approaches to the overgeneration problem. The chapter presents some promising Minimalist and Contextualist implementations of Logicality. Del Pinal's main goal in this chapter is to clarify the theoretical and empirical advantages of connecting traditional debates about the nature of logical form with debates about how best to implement the Logicality of language hypothesis. He concludes the chapter observing that a philosophically satisfactory implementation of Logicality will have to tackle foundational issues at the interface of language, logic, and metaphysics. Context-sensitivity is also discussed, in connection with vagueness in language, by Joanna Odrowąż-Sypniewska in Chapter 16; further insights, from Relevance Theory, are mentioned by Robyn Carston in Chapter 28.

concept of reference (especially linguistic reference) is also important in the discussion of natural kind terms offered by Luis Fernández Moreno in Chapter 15. Another approach to reference is presented in the mental files framework; see François Recanati's discussion in Chapter 29.

Concepts discussed in this part are perennially difficult to define and investigate, which results, among other things, in the existence of numerous competing theoretical approaches. This remark holds true also for names. John Searle observed once that "at first sight nothing seems easier to understand in the philosophy of language than our use of proper names: here is the name, there is the object. The name stands for the object"; however, he was quick to add that "although this account is obviously true, it explains nothing" (Searle, 1969: 162). Whereas classical discussions of names have their origin in Plato, contemporary philosophical debates on proper names have their sources in the studies of Mill, Frege, and Russell. André Bazzoni devotes his chapter to names in philosophy and situates the place of the study in the appropriate historical and theoretical context, starting from ideas in Plato's *Cratylus*. He observes that although names may seem less interesting and less problematic constituents of language (some even think that they do not have the status of genuine linguistic elements), their importance is manifest once one acknowledges their fundamental role as referential devices. The chapter presents a consistent and comprehensive view of the sundry aspects involved in the study of names, and of the most influential semantic theories as well as the many philosophical puzzles that each of them succeed (but fail) to resolve. In particular, the discussion is focused on (various forms of) descriptivism, Millianism, direct reference theory, rigidity, indexicalism, and predicativism. Bazzoni also briefly mentions the controversy as to the real source of descriptivism in the philosophical literature, an issue not so frequently addressed in introductory pieces on names. Proper names are also discussed by Luis Fernández Moreno in his chapter on natural kind terms; fictional names are briefly mentioned by Jukka Mikkonen in his chapter on philosophy of literature.

Whereas Chapter 9 discussed semantic content and utterance context, Katarzyna Kijania-Placek focuses in her chapter on indexicality, a special kind of context dependence which characterizes expressions such as *I*, *here*, *that*, or *tomorrow*. A rule inherent in the linguistic meaning of indexicals constrains the manner in which their semantic value is dependent upon the various features of their context of use. The chapter is concerned with three kinds of uses of indexicals: deictic, deferred, and descriptive. The deictic uses of indexicals are their fundamental uses. The linguistic meaning of the indexical *I* contains a rule that dictates that each token of this word refers to the speaker of that token in its deictic use. For some indexicals, this rule is enough in order to provide a reference in context. For other indexicals, especially demonstratives, a demonstration of an object is required. According to direct reference theory, the referent is

the semantic value of the indexical. The proposition expressed by a sentence in which an indexical occurs is thus a singular proposition. Also, the deferred use of indexicals relies on characters and gestures. However, deferred reference is a two-stage mechanism by which a linguistic expression refers to something in the world by first picking out an element in the expression's context of utterance and only then referring to another element of the context that corresponds to the first one in a contextually salient manner. Since the semantic value of the indexical is again an object, the proposition expressed by a sentence in which the indexical occurs is also singular. The situation changes in the case of the descriptive uses of indexicals, i.e. those uses where indexical utterances express general propositions. The interpretation of the pronoun in descriptive uses is a (distributive) property, and this contributes to the formation of the general proposition. The mechanisms underlying these uses exhibit increasing grades of contextual involvement. (For a discussion of some different approaches to utterance context, see Chapter 9; for contextual theories of vagueness, see Chapter 16.)

Contemporary philosophy of language often distinguishes between prototypical and peripheral natural kind terms. Prototypical natural kind terms would include biological kinds (*cat*, *tiger*, *elm*, *beech*) and natural substances (*water*, *gold*), whereas among the peripheral terms one can mention physical magnitude terms, terms for diseases, and others (cf. Fernández Moreno, 2016: 16). Risking a gross oversimplification, it might be claimed that whereas classic semantic investigations into natural kinds concentrated predominantly upon such terms as "gold, lemon, tiger, acid" (Putnam, 1970/1975a: 139), later discussions, especially outside semantics, focused on differences (but also similarities) between various "kinds-of-kinds," i.e. "natural kinds," "real kinds," "social kinds," "interactive kinds," "conventional kinds," etc. (for a comprehensive overview of recent developments, see Bird and Tobin, 2016, and the references therein). Luis Fernández Moreno devotes his chapter to the semantics of natural kind terms, especially their reference, but also their meaning. He defines reference (i.e. linguistic reference) as the relation between language (our expressions) and the world (the objects or entities of the world); next, he assumes that natural kinds are the kinds posited in a theory of natural sciences, and discusses some of the most important theories of the semantics of natural kind terms. Individual sections are devoted to Mill's descriptivist theory concerning the meaning (connotation) and the reference (denotation) of general terms, which includes his theory of natural kind terms, Kripke's causal theory of the reference of natural kind terms, Putnam's causal/social theory of the reference of natural kind terms and his theory of the meaning of these terms, the descriptivist theories developed by Searle, Strawson, and Jackson, and finally, Devitt and Sterelny's descriptivist-causal theory of reference fixing for natural kind terms. Findings of the theories dealing with the semantics

of natural kind terms might also be applied outside natural sciences, e.g. to terms used in philosophy, and philosophy of language in particular (for a preliminary discussion of assertion in the context of normative and natural kinds, see Ball, 2014).

Natural kind realism assumes that divisions between kinds reflect the boundaries between real entities, whereas for cluster kind realism and conventionalism the boundaries of the natural kind are vague (see Bird and Tobin, 2016 for an appropriate discussion). Vagueness seems to be an inherent property of human language. Joanna Odrowąż-Sypniewska observes that for philosophers the main problem that arises in connection with vagueness is the *sorites paradox*, which is due to the apparent tolerance of vague predicates; a related challenge consists in determining the truth-value of vague predications concerning borderline cases. As stressed by the author, any theory of vagueness worthy of the name has to address these problems. Traditional (i.e. non-contextual) theories of vagueness can be divided into the semantic and the epistemic. The former take vagueness to be a semantic phenomenon due to the fact that extensions of vague predicates have no fixed boundaries. According to epistemic conceptions, either vague predicates have sharp boundaries but we do not – and cannot – know where those boundaries lie, or else we cannot tell whether vague predicates have boundaries or not. More recently various versions of contextual theories of vagueness have been proposed. Such theories treat vagueness as a special kind of context-sensitivity (be it interest-relativity or agent-relativity). From the linguistic perspective, the main challenge is to specify and formally represent the lexical meaning of vague adjectives, which are known as gradable adjectives. According to the degree approach, gradable adjectives are analyzed either as relations between degrees and individuals or as measure functions. Arguably, it is only relative gradable adjectives which are vague, while absolute adjectives are not vague and do not give rise to the sorites paradox. Another type of disagreement of considerable interest for both philosophers and linguists is so-called faultless disagreement. While disagreement concerning clear cases of vague predicates is canonical, disagreement concerning borderline cases of such predicates seems faultless: both allegedly disagreeing persons can be right, i.e. neither of them is at fault. Metalinguistic interpretation of faultless disagreements involving vague properties is probably the most popular approach. Odrowąż-Sypniewska concludes, however, that one of the disadvantages of this view is that it interprets all such disagreements as disagreements over the correct use of vague predicates, whereas often speakers have the intuition that they are arguing over whether someone is tall or rich rather than over standards of tallness and richness. Furthermore, many disputes seem to be about concept choice even though speakers might be unaware of that (theoretical) issue.

1.3.4 Issues in Semantics and Pragmatics

The concept of meaning (Dummett's first "bridge concept") is crucial for research in linguistics, especially semantics and pragmatics, and philosophy of language and mind (and philosophy in general). Dummett also stresses its relevance for the philosophy and analysis of thought:

> The concept of meaning is the bridge between the philosophy of language and the philosophy of thought; it is obviously because words have meanings that thoughts can be expressed in language and that the theory of meaning is a path – perhaps the most direct path – to an analysis of the contents of our thoughts. (2012: 21)

Some earlier studies in semantics and philosophy of language even identified the two, as in these opening lines of an interdisciplinary reader in semantics: "The part of philosophy known as the philosophy of language, which includes and is sometimes identified with the part known as semantics, is as diverse in its problems and viewpoints as any part of philosophy" (Caton, 1971: 3). More cautiously, semantics was considered to be a "bridge discipline between linguistics and philosophy" (Kempson, 1977: ix). The pioneering work of Peirce, Morris, Carnap, and of the later Wittgenstein (especially his *Philosophical Investigations*), followed by research conducted by Austin, Grice, and Searle, led to the "pragmatic turn in linguistics."[10] This turn took place in two phases, the first described by Jacob Mey in terms of a paradigm shift:

> The "pragmatic turn" in linguistics can thus be described as a shift from the paradigm of theoretical grammar (in particular, syntax) to the paradigm of the language user. The latter notion is of particular importance for defining pragmatics, since it brings a number of observations to the same practical denominator. (2001: 4)

On the other hand, more contemporary research within philosophy of language and linguistics has focused on the pragmaticization of meaning, i.e. shifting the burden of theoretical and experimental analysis from semantics to pragmatics. Jaszczolt has argued recently that pragmatics and philosophy "have to occupy the center stage in the study of meaning in pursuit of a new . . . paradigm" (2018: 155–156), and Ken Turner formulates a Wittgensteinian postulate: "What is your aim in pragmatics? To shew the semanticist the way out of semantics" (2011a: 14). Turner also comments on truth-conditional semantics as "thoroughly and constitutively pragmatic" (2011a: 14). As a result of these pragmaticizing tendencies, pragmatic investigations have considerably broadened their scope and encompass now a wide range of topics, strongly interconnecting philosophy of language with linguistics (and other disciplines); for some

[10] To be distinguished from the "pragmatic turn in philosophy" (though in both cases the source of inspiration can be traced back to the achievements of Peirce), cf. Bernstein (2010). For the "pragmatic turn in cognitive science," see the contributions to Engel, Friston, and Kragic (2015).

relevant discussion see the monographs by Borg (2004; 2012) and Jaszczolt (2005, 2016), and the contributions in Turner (2011b), Depraetere and Salkie (2017), Preyer (2018), and Stalmaszczyk (2019), among others.

In Chapter 7 Jaszczolt already discusses some aspects of the semantics/pragmatic boundary. Chapters in in this part focus on crucial issues in semantics and pragmatics (within different theoretical approaches), such as entailment, presupposition, implicature (Chapter 17), speech acts, actions, and events (Chapter 18), propositions, predication, and assertion (Chapter 19), events and event semantics (Chapter 20), semantics in generative grammar (Chapter 21), metasemantics and a normative perspective on mood (Chapter 22), normativity of meaning and content (Chapter 23), the semantics and pragmatics of value judgments (Chapter 24), and semantic and pragmatic approaches to slurs (Chapter 25).

Roberta Colonna Dahlman devotes her chapter to three concepts crucial for historical and contemporary philosophical and linguistic research in pragmatics: entailment, presupposition, and implicature. It is an uncontroversial fact that sentences in natural language express contents that go beyond their literal meaning, and that language users often intend to convey contents that differ from what the sentences they utter literally mean. These other contents are what sentences entail, and what speakers may presuppose and/or implicate by uttering a sentence. Colonna Dahlman stresses that a theory of meaning that distinguishes between semantic and pragmatic content must distinguish semantic implications from pragmatic implications. The former depend only on sentence meaning, that is, on the content encoded in the words a speaker uses to utter a grammatically correct sentence, while the latter depend not only on sentence meaning, but primarily on speaker meaning, that is, on the content the speaker intends to convey by uttering a sentence in order to achieve a certain goal. The chapter presents three types of implied content (entailment, presupposition, and implicature) and draws fundamental distinctions between different cases. In particular, while entailments are semantic implications, denoting truth-conditional relations between sentences or propositions, implicatures are pragmatic implications, denoting non-truth-conditional contents and expressing speakers' communicative intentions. Furthermore, presuppositions may be defined as semantic and pragmatic implications, denoting, in the former case, truth-conditional contents that relate to presupposing sentences, and, in the latter case, contents that speakers treat as backgrounded information belonging to the common ground they share with their interlocutors. The author argues that the distinction between semantic and pragmatic implications has bearing on the question of speaker's commitment in communicative contexts. Only pragmatic implications, but not semantic ones, are related to what speakers believe, and thus to what hearers can reasonably assume that speakers in a communicative context are committed to. Other chapters investigating different aspects of nonliteral meaning include Eleni

semantic theory has had recourse to various strategies to deal with methodological and conceptual conflicts arising in the course of the development of formal semantics within bounds imposed by the generative approach to language. Open research issues range from the proper delimitation of the scope of semantics (which may be further subdivided into an investigation of the relationship between the syntactic engine of the faculty of language and interpretive components, and an exploration of the interaction between the latter and further components of the mind) to the nature of atomic items which are subject to syntactic and semantic procedures and the correct analysis of their properties. A Minimalist inquiry into both the syntax/semantics interface and the interpretive component as such should, furthermore, respect methodological principles governing explanatory work in the generative approach to the study of language, taking into account in particular issues of learnability and evolvability. It is also necessary to distinguish between properties due to the genetic endowment specific to the faculty of language, properties arising as a consequence of linguistic experience, and properties originating from general cognitive factors. Jakielaszek reviews the main approaches developed to deal with such research problems, with a particular emphasis on issues arising in the environment of the Minimalist Program in its various incarnations. Further philosophical implications of generative grammar are presented by Peter Ludlow in Chapter 26.

Whereas in Chapter 7 on the philosophical foundations of meaning, Jaszczolt discusses different aspects of metasemantics, Manuel García-Carpintero (Chapter 22) offers a normative perspective on metasemantics, with special focus on the metasemantics of mood-indicators. He observes that Kaplan and Stalnaker made a useful distinction between semantics and metasemantics: to the former category belong theories that assign meanings to their bearers, prominent among them linguistic expressions, whereas to the latter belong theories that provide the basis for ascribing such meanings or state what the facts are that give these meanings to their bearers. As stressed by García-Carpintero, this is a metaphysical undertaking – one concerning the grounding of meaning-facts, i.e. what determines, fixes, or constitutes them. Until recently, most philosophers took metasemantic facts to have a psychological nature, being either Gricean intentions, or states of a purported Chomskyan "Knowledge of Language" module. More recently, some writers are swinging back to an Austinian view, on which metasemantic facts are social: social conventions and social norms. García-Carpintero presents recent contributions to this debate, especially on the metasemantics of mood-indicators, contrasting it with recent discussion of other context-dependent expressions, in particular demonstratives.

Philosophical investigation into the normativity of meaning and content has been inspired by Saul Kripke's *Wittgenstein on Rules and Private*

Language (1982). Alexander Miller surveys in his chapter the standard literature on the normativity of meaning that has been influenced by Kripke's book (especially its second chapter, "The Wittgensteinian Paradox," where Kripke considers a skeptical argument involving the rejection of realism about meaning). Miller observes that Kripke's remarks suggest that since meaning, like morality, is normative, debates in the philosophy of language about the extent to which realist theories of meaning might be threatened by error theories or non-factualist views of ascriptions of meaning can parallel debates in metaethics about the extent to which moral realism is threatened by error theories or non-factualist accounts of moral judgment. The chapter discusses arguments put forward by prominent contemporary normativists such as Daniel Whiting, and prominent anti-normativists such as Åsa Wikforss, Kathrin Glüer, and Anandi Hattiangadi. Miller traces the relevant developments, explaining the standard distinctions used in the literature (e.g. between the notions of meaning engendered normativity and meaning determining normativity), and also the extensions of the debates about the normativity of meaning to the concepts of mental content and belief. The chapter concludes with a brief comment on Frege and normativity of meaning, where Miller observes that for the German philosopher, laws of logic and laws of thought imply prescriptions, and, given that for Frege the *senses* of sentences are thoughts, it is clear that (and contra Glüer and Wikforss), he was a normativist about meaning.

In the next chapter, the three authors, Andrés Soria Ruiz, Bianca Cepollaro, and Isidora Stojanovic, survey the contemporary debate in philosophy of language and linguistics about value judgments (such as, e.g., "Torture is unethical" or "*Eternal Sunshine of the Spotless Mind* is a marvelous film"). They observe that judgments of value and judgments of fact are structurally and superficially similar, and it is an open question how to distinguish them. A plausible hypothesis is that judgments of value require using certain expressions of natural language, namely, evaluative terms, such as *unethical*, *marvelous*, *good*, or *bad*. The authors discuss the semantic features of evaluative terms, they focus on different properties of adjectives (gradability, multidimensionality, thickness), and on the notion of value judgment. They also look at the main proposals about value judgments and evaluative sentences in recent metanormative theory and philosophy of language, and present relevant noncognitivist approaches, which include emotivism, prescriptivism, expressivism, and quasi-realism. On the other hand, moral cognitivists hold that moral terms refer to properties, or sets of properties, that can be studied by the natural and social sciences, even if moral and non-moral concepts are different. Cognitivist approaches include moral realism, error theory, and contemporary semantic relativism.

Another dimension of value judgments is visible in the analysis of slurs, that is, derogatory epithets that target individuals and groups based on

their (perceived) membership in a social category such as ethnicity, race, religion, sexual orientation, etc. Most studies agree that slurs have a derogatory component; their semantic status, however, is a matter of controversy (for an overview of different approaches see Anderson and Lepore, 2013a, 2013b; Frigerio and Tenchini, 2014, and the references therein). In his chapter, Leopold Hess is concerned with linguistic and philosophical theories of the meaning of slurs. He discusses attempts at delimiting the category of slurs, and especially distinguishing them from other insults and pejoratives, surveys the main properties of slurs, summarizes the controversies surrounding some of them and their status in theoretical considerations, and presents the most important semantic approaches to slurs. Such approaches are divided on the basis of whether they take the meaning of slurs to be one-dimensional or two-dimensional. The former approach entails that they have faulty or empty extensions, whereas the latter assumes separating derogatory content from truth-conditional content. The chapter follows with a presentation of approaches which reject the assumption that derogation is a function of the semantic content of slurs and explain it through pragmatic or social mechanisms. Hess briefly discusses presuppositional theories, socially defined offensiveness, and the relation between slurs and speech acts. The chapter concludes with a survey of literature concerned with other aspects of slurs, beyond general theories of their meaning; the most important of the discussed issues is that of reclamation – or (re)appropriation – of slurs by target groups.

1.3.5 Philosophical Implications and Linguistic Theories

Chapters in Part V contribute to philosophy of linguistics, and they are devoted to the philosophical implications of three major linguistic theories: generative grammar (Chapter 26), Conceptual Semantics (Chapter 27), and Relevance Theory (Chapter 28). Other topics include an outline of theory of mental files (Chapter 29), and a discussion of the relations between contemporary discourse studies and philosophy of language (Chapter 30).

The separation of philosophy and linguistics has already been mentioned in the introductory part above; however, Peter Ludlow, in his chapter on the philosophical implications of generative grammar, demonstrates that contemporary linguistics does not merely have philosophical implications but is an important part of philosophical practice itself (and vice versa). Following the general approach explicit in Chomskyan linguistics, Ludlow assumed in an earlier study that "generative linguistics" is to be understood as "that branch of linguistics that attempts to explain and understand language related phenomena by constructing a theory of the underlying mechanisms that give rise to those phenomena" (2011: xv). In the current chapter, he stresses that since generative grammar was born

a half century ago, it has had a close relationship with analytic philosophy. This relationship has cut in two directions – philosophy has informed generative grammar, and generative grammar has provided evidence for certain philosophical positions (though in some cases it is possible to talk about misinforming and problems with appropriate interpreting of the evidence). The author explores ways in which that two-way relationship continues. In particular, he looks at ways that philosophy can inform current disputes in linguistics, and at how generative grammar can inform philosophical questions. He demonstrates that a number of claims made in linguistics about "data first" approaches to theorizing are misguided from a philosophical point of view; he also shows how a number of apparent puzzles in philosophy (for example, in epistemology) can benefit from linguistic evidence. Ludlow concludes his chapter by observing that there was a time when the academy did not recognize a clear distinction between science and philosophy (especially what was known as "natural philosophy"). However, there still are many enterprises, particularly in developing sciences, where the distinction remains arbitrary, and we might say that when we are engaged in those enterprises we are doing natural philosophy. That certainly remains the case for much of what takes place in linguistics and philosophy today.

Conceptual Semantics is a formal approach to natural-language meaning developed over the years by Ray Jackendoff and Steven Pinker (for the development of the approach, see Jackendoff, 1983, 1990, 2002, 2007, 2012, 2017; Pinker, 2007). Its fundamental goal is to describe how humans express their understanding of the world by means of linguistic utterances and to explore the position that linguistic meaning is to be regarded as instantiated in human conceptual systems. Within this approach mental structures are "involved in a variety of cognitive domains: language, consciousness, complex action, theory of mind, and social/cultural cognition" (Jackendoff, 2007: xvii). In a recent paper, Jackendoff also demonstrated that formal theories of mental representation "are crucial in any mental domain, not just for their own sake, but to guide experimental inquiry, as well as to integrate the domain into the mind as a whole" (2017: 185). The theory represents a fundamental break from traditional formal semantics, and it has consequences not only for philosophy of language, but also philosophy of mind, metaphysics, and possibly even ethics. Ray Jackendoff shows in his chapter that the conceptualist perspective offers insightful analyses of a wide range of semantic phenomena that are opaque to a traditional realist and/or truth-conditional approach. He discusses a number of connected theoretical and applied issues, including grounding a philosophy of language in cognition, elements of cognitive metaphysics, types of objects, semantics and world knowledge, and truth in Conceptual Semantics. Jackendoff concludes that a consequence of the approach is a nuanced account of the truth of a sentence, in which it is an individual's evaluation of the correspondence between the conceptual

structure associated with the sentence and the conceptual structure of one's understanding of the world. It is proposed that such an analysis of truth is appropriate for scientific purposes, though not for ordinary life, where a realist perspective generally prevails. The choice of which perspective to adopt and when remains as a deep philosophical question. The chapter ends with several questions about perspective. In the very last one, Jackendoff asks: how is it that the human mind has evolved the possibility of understanding the world from multiple perspectives – and the possibility of generating new ones? And he claims that potential answers to such questions would offer new directions for the philosophy of language and the philosophy of mind.

Relevance Theory (RT) is a cognitive-scientific approach to the study of human communication and utterance comprehension, an attempt to ground models of human communication in cognitive psychology (for general introductions to the approach, see Carston, 2002; Sperber and Wilson, 1995a; Wilson and Sperber, 2012a). RT has its roots in Grice's philosophical analysis of speaker's meaning and his account of "the logic of conversation," and the theory preserves the fundamental Gricean insights: speakers have overtly manifest communicative intentions and utterance interpretation is an inferential process constrained by addressees' expectations that the information they are being offered meets certain standards (in terms of both its quantity and its quality). However, Robyn Carston focuses in her chapter on respects in which RT diverges from Grice's views: it replaces his conversational maxims with a cognitively based presumption that utterances meet a standard of "optimal relevance" and it significantly broadens the domain of a pragmatic theory from his "speaker's meaning" to a notion of "ostensive communication," which includes cases of "showing" and cases of weak communication. Relevance theorists have also entered into several debates with other philosophers of language, especially those focusing on the context-sensitivity of language use and the challenges that it presents for a systematic account of language meaning and of communicated content. Two of these issues are directly addressed by Carston in her chapter: the role of context-sensitive pragmatic inference in deriving explicit (truth-conditional) utterance content and the implications of this for the semantics/pragmatics distinction; and the flexible nature of a word's meaning in context (pragmatic polysemy) and whether it is conventionalized stable meanings of words or speaker intentions (and pragmatic inference) that take priority in communication. In all of these areas of interaction with the philosophy of language, RT is informed by the "pragmatics first" perspective that it takes to the respective roles of semantics and pragmatics in human communication. Carston also observes that the RT account of nonliteral uses of language, in particular metaphor, locates them within an account of linguistic communication (hence pragmatics), in contrast with those philosophical accounts that place them outside communication/pragmatics, describing nonliteral uses of language as individualist imaginative leaps,

genre theory are illustrated by giving descriptions of dialogue types and genres of conventionalized communicative practices, and those of classical rhetorical genre theory by providing the characteristics of judicial, deliberative, and epideictic speeches and explaining the rationale for distinguishing them. Next, Wagemans describes the various taxonomies of individual arguments developed within the three perspectives and discusses logical accounts of reasoning and inference relations, dialectical accounts of argument schemes and fallacies, and classical rhetorical insights regarding the three means of persuasion (*logos*, *ethos*, and *pathos*). The final section of the chapter outlines present-day developments in the philosophy of argument. The author describes proposals for extending the scope of the definition of "argument" into the direction of narratives, multimodal arguments, and polylogues, he also discusses the state of the art in the development of computational models of argument and technical applications thereof, and the quality of argumentation in the public sphere. This last section points to some conceptual affinities with applied philosophy of language (as mentioned briefly in Borg and Fisher's chapter, and more comprehensively in Borg, 2016a), and with critical discourse studies (as discussed in Cap's chapter, and in Hart and Cap, 2014b).

Stephen Mumford explores some of the differences and connections between negation and denial. It is clear that there is a connection between negation and denial; however, Mumford makes the case for the rejection of the equivalence thesis: the view that a denial of P is just the same as an assertion of not-P. He discusses different approaches to equivalence (Frege's, Quine's, Dummett's) and compares the distinct functions of assertion and denial, concentrating on issues connected with truth and falsehood, truth making, commitment, determinacy, error, judgment, and belief, epistemic norms, incompatibility, and univocity. The discussed differences, taken together, show that it is problematic to assume that a denial of P is just an assertion of not-P. Assertion aims at truth, commits to a way the world is, expresses a judgment, and is conventionally opening; negation is used primarily to say what is not. In contrast, denial aims at falsehood, it makes no commitment to a way the world is; denial might withhold judgment and is conventionally responsive. Even if negation and denial belong to different categories, however, it is plausible that some relation holds between them and an appropriate account of denial should take into consideration all the similarities and differences.

The great Argentinian writer Jorge Luis Borges observed, in an interview conducted by Gloria López Lecube, that "language is so limited compared to what we think and feel that we are obliged to lie, words themselves are lies. . . . Language is a clumsy tool and that can oblige one to lie" (Borges, 2013: 167–168). In her chapter, Marta Dynel looks at "lying and beyond," and presents a state-of-the-art picture of the contemporary philosophical-

linguistic research on deception. She provides an overview of the key definitions, notions, and approaches. After revisiting the definitional components of the blanket term "deception," she focuses on the main subtypes, which transcend the prototypical category of lying: deceptive implicatures, deceptively withholding information, bullshit, covert irrelevance, covert ambiguity, as well as three types of covert pretending. Dynel observes that nonacademic understandings (based on personal intuitions, natural semantics, and/or legal definitions) typically inform philosophical conceptualizations and very often inspire philosophical questions and long-standing debates on the nature of deception and its types. In this context she stresses the significance of language users' understandings of deception-related terms and their metapragmatic evaluations of the various strategies of deception. Dynel concludes that in order to account for the problems crucial for deceptive language use, language philosophers can benefit from forging academic links with psychologists and forensic scientists, who endeavor to detect deception in various communicative contexts, frequently limiting their investigation only to what they conceive as lying.

Eleni Kapogianni provides an overview of types and definitions of irony. Her chapter discusses the theoretical debates on the nature of verbal irony arising within the disciplines of philosophy of language and pragmatics. These debates primarily concern the definition and typological characteristics of the phenomenon, while also being linked to wider issues such as the semantics/pragmatics boundary. After a brief consideration of other members of the "irony family" (including situational irony, Socratic irony, romantic irony, verbal irony), Kapogianni categorizes the theoretical models of verbal irony according to their central goals and research questions and divides them into: models focusing on the relation between what is said and what is intended (mostly of Gricean/neo-Gricean origin), models focusing on the speaker's dissociative attitude toward what is said (mostly in the Relevance-theoretic approach), and models focusing on the communicative goals of the ironist and specifically the intention to convey an evaluation. The distinction between necessary and optional features of irony is then considered, leading to the presentation of ironic strategies and their potential typological classifications. Finally, the author views verbal irony alongside its most commonly discussed counterparts (figurative language, sarcasm, humor) and distinguished from them on the basis of a multi-level view of communicative events.

The chapter by Esther Romero and Belén Soria is concerned with philosophy of language and metaphor. The authors expound theories of metaphor, focusing on their recent developments and current controversies in the philosophy of language. Traditionally, the genuine cognitive value of metaphor was neglected by philosophers because most authors espoused some form of what Max Black called "the substitution view"; a view that reduces the metaphorical contribution to an ornamental value. However,

according to Black, there are interaction metaphors whose characterization depends on explaining that the properties of a category concept can be projected onto a different category, giving us a perspective from which to gain an understanding of that which is metaphorically portrayed. This is its distinctively cognitive role. The defense of this role is compatible with the skeptical strategy on metaphorical propositional contents. However, the notion of metaphorical meaning (as part of speaker's meaning) is often considered as a useful notion to account for some of the characteristics of the metaphorical use of language. Romero and Soria explain that among those scholars accepting metaphorical meanings, some take a deflationary position according to which the meanings of many other kinds of utterances are explained in the same way as the metaphorical ones, while others give a non-deflationary account of metaphor and argue that some peculiar characteristics of metaphorical meaning reveal the genuine cognitive value of novel metaphor. Finally, they present the debate on metaphorical meaning as part of two types of propositional contents involved in speaker's meaning; implicature or what is said.

Contemporary philosophy of language has been showing growing interest in fictional names, the status of fictions, truth in fiction, and fictional discourse; for obvious reasons, such issues are crucial to investigations in philosophy of literature, and philosophy of fiction in particular (for comprehensive recent overviews, see Carroll and Gibson, 2016; Hagberg and Jost, 2010; and Stocker and Mack, 2018; see also Abell 2020 for a philosophical analysis of broadly understood fiction, and Predelli, 2020 for a discussion of Radical Fictionalism, a recent theory about fictional discourse and narrative fiction). It is thus not surprising that this *Handbook* contains a chapter devoted to philosophy of literature. Jukka Mikkonen provides readers with a basic understanding of philosophy of literature in the analytic tradition. He first offers an overview of the history of the analytic method in aesthetics, followed by philosophers' recent formulations of the analytic enterprise. The chapter is organized around five main topics: literature; fiction; narrative; author, meaning, and intention; and cognition. The section on "literature" presents the main conceptions of literature in analytic aesthetics; it explores definitions of literature and the ontology of literary works. "Fiction" surveys theories of fictionality, the epistemology of fictional truths, and the ontology of fictional entities; it also introduces other topics explored by philosophers of fiction, such as the nature of fiction-induced emotions and readers' "imaginative resistance" to morally deviant fictional worlds. "Narrative" briefly describes analytical philosophical interest in narrative, such as the (minimal) definition of narrative and the epistemic value of narrative explanations and narrative identity. "Author, meaning, and intention" explores the mentioned concepts in the philosophy of literature and presents an overview of three main theories in the philosophy of interpretation: actual intentionalism, hypothetical intentionalism, and value maximization theories.

"Cognition" overviews theories of the cognitive value of literature, that is, its ability to furnish readers with propositional or nonpropositional knowledge and insight. Mikkonen concludes with a brief mention of some contemporary issues in philosophy of literature: ontology of serial fictions, the possibility of empty fiction (fiction which contains no fictionally true propositions), and interactive fiction.

The relations between words and the world, and words and meaning, have been studied within philosophy of language, and especially semantics, since the beginnings of the discipline (as attested by several chapters in the volume). Another way of tackling this issue is provided by investigations within linguistic relativity, a topic often considered to be on the borderline between philosophy of language and philosophy of linguistics (cf. Scholz et al., 2020). Antonio Blanco Salgueiro observes that linguistic relativity is often defined by its detractors in ways that make it seem a radical and implausible idea; in his chapter he assumes that linguistic diversity (the different forms of human language) has a nontrivial impact on cognitive diversity (the various ways or styles of thinking in humans). Furthermore, his aim is not to defend or attack the hypothesis, but to clarify it and to present some philosophical consequences of its acceptance. Blanco Salgueiro notes that despite its apparent simplicity, linguistic relativity (LR) is a complex of ideas, and suffers from the ambiguity of the key words "language" and "thought." It results from joining two independent premises, neither of which entails the hypothesis separately: the claim of the *cognitive impact of language*, and the claim of *nontrivial linguistic diversity*. Each can be formulated in different ways and admits radical and milder versions with respect to several parameters, which makes absurd any attempt to establish in absolute terms *weak* and *strong* versions of the hypothesis. This twofold complexity makes LR a multifaceted idea. It can be defended in a determinist or an influencist way, taking into account or ignoring further factors (apart from language and thought) like culture, with a global or a more local spirit, focusing on different linguistic mechanisms, and highlighting various forms of linguistic diversity, apart from crosslinguistic diversity. The consequences of LR should be examined, taking into account this complexity that, at the same time, makes it a versatile tool that can be put in use in many different philosophical areas. In recent times, there are attempts to connect LR with philosophical topics in the philosophy of language and analytical philosophy at large that point to new directions in the treatment of the hypothesis. Here, LR is connected with four philosophical issues: the relation between language diversity and philosophical thought, the question of the priority of speaker's meaning over linguistic meaning, the challenge of experimental philosophy to traditional theories of reference, and the role of language in externalist views of the mind.

1.4 Conclusion

In §§ 1.1 and 1.2, I have already quoted John Searle's remarks on the fundamental questions, scope, and aims of philosophy of language. More recently he has voiced considerable skepticism regarding the current state of the discipline and its future, as demonstrated in these two characteristic fragments, from *Mind: A Brief Introduction* (2004), and from *Philosophy in a New Century* (2008a):[11]

> For most of the twentieth century the philosophy of language was "first philosophy." Other branches of philosophy were seen as derived from the philosophy of language and dependent on results in the philosophy of language for their solution. The center of attention has now moved from language to mind. Why? Well, first, I think many of us working in the philosophy of language see many of the questions of language as special cases of questions about the mind. Our use of language is an expression of our more biologically fundamental mental capacities, and we will not fully understand the functioning of language until we see how it is grounded in our mental abilities. (Searle, 2004: 10–11)

> I said that the philosophy of language was the center of philosophy for most of the twentieth century. Indeed, as I remarked, during the first three-quarters of the twentieth century, the philosophy of language was taken to be "first philosophy." But by the end of the century that had changed. Less is happening in the philosophy of language now than in the philosophy of mind, and I believe that the currently most influential research programs have reached a kind of dead end. (Searle, 2008a: 17)

Similar observations have been formulated over the years by other philosophers as well:

> Gradually but unmistakably, in the latter part of the 1970s, the philosophy of language lost its place as the dominant starting point for philosophical activity. No other area of philosophy assumed quite the status that the philosophy of language had had since the 1950s. But the degree of interest in relatively "pure" philosophy of language has certainly diminished. Moreover, there has been a perceptible shift of ferment toward issues in the philosophy of mind. . . . by the late 1970s or early 1980s philosophy of language no longer seemed the obvious propaedeutic for dealing with central philosophical problems. (Burge, 1992: 27–28)

> The philosophy of mind has famously displaced the philosophy of language at the centre of much current debate. (Williamson, 2004: 107)

> the linguistic turn is dead. . . . philosophy of language has lost its way. (Cappelen, 2017: 743)

[11] Already in his earlier work *Expression and Meaning*, Searle attempted to show in what ways the philosophy of language was based on the philosophy of mind, in particular "how certain features of speech acts were based on the Intentionality of the mind" (1979: vii), and in *Intentionality* he stressed that the basic assumption behind his approach to problems of language "is that the philosophy of language is a branch of the philosophy of mind" (1983: vii).

Several other topics are already comprehensively discussed in the publications mentioned above. Future publications might investigate the developments at the interface of philosophy of language and, for example, philosophy of literature and aesthetics, modern philosophy of translation, philosophical and cognitive analyses of intuitions, and different approaches to illusions. Other possible areas of study might include a review of empirical and computational methods in linguistics and philosophy of language, and a discussion of various approaches to metaphilosophy of language, and critical and applied philosophy of language.

A possible separate volume could concentrate on fundamental issues in the ontology of language, demonstrating the consequences of adopting different definitions of language (with various ontological claims) for the philosophy of language. And finally, philosophy of language provides tools which might be of considerable and mutual benefit in research interchanges with the science of language evolution, biolinguistics, cognitive neuroscience, and philosophy and theory of Artificial Intelligence, to mention just four major areas of research, all concerned (to some extent at least) with human language.

Part I

The Past, Present, and Future of Philosophy of Language

2

The History of the Philosophy of Language before Frege

Michael Losonsky

2.1 Ancient Philosophy

While ancient Indian and Chinese theological and philosophical thought included significant reflections on the nature of mind, language, and logic, and Sumerian, Babylonian, and Assyrian scribes kept vocabulary lists and translation manuals, European linguistics and philosophy of language are rooted in ancient Greek philosophy. Greek philosophers were the first to record generalizations about language that included reflections on the nature and sources of the meaning of natural language (Law, 2003: 14). Pre-Socratic writings already contain fragmentary reflections on linguistic meaning. Heraclitus distinguishes between speech and action and maintains that intelligible speech must be law-governed just as a city-state needs strong laws (Freeman, 1983: 24 and 32). Parmenides identifies empty names, for example "Becoming," because only Being exists, and human beings should not have "established the custom" of using such names (Freeman, 1983: 44). Democritus maintains that the names of gods are "vocal images" whose sound-form expresses identifying properties of the referent, suggesting that language represents because language and what it represents share properties. He also ties speech to action, declaring it to be a "shadow of action" (Freeman, 1983: 165). Arguably the most extensive discussion of the meaning of language during this period is by the fifth-century Sophist Gorgias of Leontini, at least as it was reported by Sextus Empiricus (*c.* 200). According to Sextus, Gorgias sharply distinguished speech from things that exist "outside us" and concluded that they were so distinct that language about external objects is unintelligible (Freeman, 1983: 129).

How language can represent something that is independent of language and its users becomes a focal point for Plato (429–347 BCE) in his dialogue *Cratylus*, the first sustained contribution to the philosophy of language in

European philosophy. In this dialogue, Socrates explicitly identifies the representational properties of language, the difference between word and object, the normative component of linguistic meaning, and a rudimentary conception of the compositionality of language, maintaining that letters form syllables, which form nouns and verbs, and the "combinations" of nouns and verbs ultimately form language (424e).[1] The central topic of the dialogue is whether the correctness of names used to refer to objects is natural or conventional. Socrates rejects both accounts and argues that language is actually irrelevant to knowledge because human beings can know something without language, and naming depends on having prior knowledge of the named objects.

The linguistic themes of the *Cratylus* reappear in the later dialogue *Sophist*, where Plato emphasizes that meaningful speech is not just a concatenation of names or of verbs but is a "weaving [of] verbs with names" (262d). He also highlights being true or false as a property of meaningful speech and rejects the Parmenidean view that meaningful but false speech is impossible. True speech, Plato maintains, says about things "as they are" and false speech "says things different from those that are" (263a–b). These are rudimentary conceptions of the semantic structure of human language and the role of truth and falsity in meaningful speech.

Plato's rudimentary conceptions yield a rich harvest for his student Aristotle (384–322 BCE). Aristotle's systematic treatment of syllogistic inferences founded logic as the scientific study of inferential validity. However, this work on logic is tightly interlaced with Aristotle's philosophy of language, weaving a logical conception of language that will characterize analytic philosophy of language in the twentieth and twenty-first centuries. Aristotle's earliest work on logic, *Categories*, opens with linguistic distinctions, including the subject/predicate distinction in terms of "what is said." Aristotle's treatise on demonstrative inferences in the *Prior Analytics* introduces the concept of a premise or proposition (*protasis*) of an argument in terms of a statement (*logos*) that affirms or denies something. Similarly, a syllogism is a discourse or form of words (*logos*) in which something new follows from what has been stated. Aristotle does not distinguish propositional content from linguistic discourse and thus syllogistic structure is both a structure of content and a structure of language.

In *On Interpretation*, written before the *Prior Analytics*, Aristotle discusses the relationship between language and logic. Following Plato, Aristotle believes there is a diversity of languages because language is conventional. While the sounds used to represent are conventional, all languages represent "affections of the soul" and these are universal to all human beings (16a3). Human thoughts, in turn, represent reality, and this is also shared by all. The relationship between thoughts and reality is natural, not

[1] References throughout this chapter are to the editions listed at the end of the book.

catalogued inflections, laying them out in grids, for example, for genders and cases familiar to any student learning a new language.

While the study of inflectional morphology is better seen as a contribution to linguistics, in particular to descriptive grammar, the development of an understanding of natural language's syntactic structures plays an important role in the development of the philosophy of language, understood as primarily concerned with the meaning of natural language. An understanding of the syntactic structures of natural language, including the compositional and recursive nature of syntax, is a framework for understanding the meaning of language.

2.2 Medieval Philosophy

This is evident in the development of the philosophy of language in the medieval period, where the semantic and logical structure of natural language becomes a focal point again. The early Middle Ages are framed on one end by Augustine of Hippo (354–430) and Boethius of Dacia (480–525). Augustine's work on language and logic is mostly independent of direct Aristotle's influence. However, resting on Stoic influences, Augustine stakes out logic and language as a significant subject for Christian religious and philosophical reflection. Augustine's most extensive work on language and logic, *De Dialectica*, is an incomplete manuscript that he intended as an introduction to the liberal arts, and by the ninth century it was used as a text in the *trivium* of the liberal arts curriculum (Jackson, 1975: 19). It divides logic into four parts: "on naming," "on expressing," "on asserting," and "on concluding from assertions" (iv: 86). "On expressing" is about complete sentences that do not have truth-value, while sentences that are formed to make a judgment or assertion have a truth-value and are subject to disputation. Accordingly, as was the case for the Stoics, the domain of logic includes commands, wishes, curses, and other forms of communication beside making assertions. A significant feature of Augustine's understanding of language is that "it is spoken by a speaker and can be understood by a hearer," thus conceptualizing language as a speech act (v: 86), as indicated by Augustine's headings for the four parts of logic.

Nevertheless, there is a propositional component to speech. Building on the Stoic concept of the *lekton*, Augustine distinguishes between an utterance (*verbum*) and the utterance used to say or express something (*dictio*). What is said or expressed is something sayable or expressible (*dicibile*), which is not something heard or seen but is understood by and contained in the mind (v: 88). What is expressible has a status independent of the actual expression because it can be understood by a mind independently of the expression. There is a fourth component of speech, namely the object that is signified by speech (*res*). Thus Augustine distinguished between

what is expressed in language and its referent. Augustine is also very clear about the use/mention distinction, noting that sometimes a word becomes a *res* that is signified by what is said, and exhorts readers to be careful to distinguish whether a word is being just used or also mentioned.

Augustine makes use of his analysis of the components of meaningful speech in his theological writings. In *De Trinitate* Augustine uses linguistic relations to explain key theological concepts. For example, he maintains that just as a word signifies itself only as signifying something else, so love only "loves itself as loving something" (8.8.12). However, Augustine, in this later work, ultimately shifts his attention from language to mind. He maintains that inner thought must precede human speech or any bodily action, and this inner thought consists of words that are distinct from the words of any natural language (9.10.15). However, Augustine does not discuss the structure of this inner language and in fact he describes the inner language, which is a "likeness . . . to the Word of God," as an enigma (15.11.20). For Augustine there is no necessary connection between the language of thought and the syntactic structure of natural language because inner thoughts can be expressed by nods and other kinds of syntactically and semantically unstructured gestures. Augustine's famous passage in the *Confessions* about language learning, which serves as a foil for Ludwig Wittgenstein (1889–1951) in his *Philosophical Investigations*, anticipates this unstructured view of language and thought (1.6.8).

Nevertheless, Augustine's sustained interest in the meaning of language and the relationship between language and mind opened up a space for the philosophy of language during the ninth-century Carolingian renaissance when Alcuin of York (*c.* 735–804) made logic part of the royal curriculum. With the rediscovery of Aristotle's work on logic and language by 972 through Boethius' Latin translations of and commentaries on Aristotle, medieval work in the philosophy of language blossomed. The first wave of Aristotle's influence rested on the *Categories* and *On Interpretation*, Boethius' commentaries on these works, his introductions to the logic of categorical syllogisms, and his translation of Porphyry's introduction to Aristotle's *Categories* known as *Isagoge*. Peter Abelard's (1079–1142) *Dialectica* (1956) is the culmination of this first wave. While Augustine's *De Dialectica* isolated the component of what is "sayable [*dicibile*]," Abelard analyzes what is sayable into distinct components.

In *Dialectica* Abelard distinguished the propositional content of a statement or enunciation (*enuntiatio*, *dictum propositionis*) from the affirmation expressed by the statement. The content of a statement is what is understood or proposed when spoken, and Abelard classifies this as a kind of signification (*signification intellectualis*), not to be confused with the signification of objects (*significatio realis*) (1956: 148, 154–156). What is understood is, in contemporary terminology, the propositional content, but this content can be shared by other kinds of speech acts beside statements, like commands, questions or wishes (1956: 151). A statement is a mode of understanding, namely an assertion or affirmation of what is understood,

the propositional content, and as such it is either true or false and only statements have truth-values (1956: 154). However, the truth-value is not a property of the content, but the affirmation of the content. A question, command, or wish with the same content does not have a truth-value.

By separating propositional content from the assertion of the content, Abelard was able to develop a better understanding of sentential connectives and operators, motivating the study of what came to be known as the syncategorematic terms. Abelard is credited with the first use of the term *copula* and clearly distinguishing the *is* of predication from the *is* of existence (1956: 162). He also recognized that in asserting a conditional a person need not be asserting either the antecedent or the consequent, but only the conditional. Moreover, Abelard recognized that a conditional *if P, then Q* is not merely two distinct propositional contents connected by *if . . . , then*, but that the connector plays a semantic role to form a new propositional content – the conditional – that itself can be affirmed or denied. In addition, the conditional can be used to form more complex propositions, for example negations, conjunctions, or another conditional (1956: 472). Abelard's deeper understanding of conditionals allows him to develop Aristotle's logic beyond simple categorical syllogisms.

In the twelfth century the remainder of Aristotle's logic was rediscovered in Europe and came to be known as the *logica nova*, to distinguish it from *logica vetus* or old logic. The new texts consisted of Boethius translations of the *Prior Analytics*, *Sophistical Refutations*, and *Topics*, and James of Venice's translation of the *Posterior Analytics*. For example, Aristotle's discussion of modal syllogisms in the *Prior Analytics* led to work on the logic and semantics of modal sentences, culminating in the modal logic of William of Ockham's (1285–1349) *Summa Logicae*. Aristotle's *Sophistical Refutations* stimulated work on sentences that posed semantic problems, gathered under the headings of *Sophismata* and *Insolubilia*.

The *sophisma* that attracted most interest were ambiguities of structure. In some cases these could be resolved by distinguishing the scopes of quantification, as in the case *All apostles are twelve* or *Every man has a head*. In other cases the solutions, if there were any, were controversial (*insolubilia*), such as versions of the liar's paradox, for example, *Socrates says that he is a liar and that is all he says*. The *sophismata* of thirteenth- and fourteenth-century medieval philosophy led to extensive work on syncategorematic terms, for example on the diversity of quantifiers, including *every*, *some*, *none*, *many*, and *most*, as well as modalities: necessity, possibility, *actually*, and *probably*. These terms were called "syncategorematic" because they did not signify something on their own, as was supposed to be the case for categorematic terms, but at the same time they contributed to signification in the context of a statement. For example, Peter of Spain (d. 1277) argues that *every* does not signify an object, but it nevertheless has signification because it contributes to the truth or falsity of a proposition when combined with a categorematic term (1972/1990: 12.5 (210–211/186).

The concept of supposition (*suppositio*) was introduced to treat the signification of terms in the context of a proposition. Depending on the theory of intentionality a philosopher had for ideas, the common noun *man* on its own signified a common nature or form, a defining concept, an intentional objective being (*esse objectivum*), or every past, present, future, and possible man. However, in the context of a proposition the object referred to can change. In the case of personal supposition (*supposition personalis*), the term *man* refers to or supposits concrete individuals, for instance in *Socrates is a man* or *A man runs.* In some contexts, the term simply supposits what it signifies, for example *Man is a rational animal* or *Man is a species* (*suppositio simplex*). In a third kind of context the term materially supposits (*supposition materialis*) itself, as *Man is a term*, thus distinguishing the use and mention of a term without introducing a new term for *man* (William of Ockham, 1974: 188–191; Peter of Spain, 1972: 70–72 and 172–176).

An important feature of the development of the theory of supposition is that supposition is detached from signification. Signification began as primarily a psychological notion of what is brought to mind with a term and supposition was a kind of signification, for instance in the context of a proposition restricting the signification a term has on its own. But for Peter of Spain and William of Ockham, supposition is not a kind of signification, but simply what a term stands for in the context of a proposition. Thus, arguably, supposition can be seen as anticipating a modern notion of reference that is distinct from sense or meaning.

While the work on language in later medieval philosophy is relevant to natural language, it needs to be noted that, after Abelard, medieval interest in language shifted from natural language to what was thought to be the medium of human thinking: mental words (*verbum mentis*). This shift culminates in the philosophy of William of Ockham. In *Summa Logicae* Ockham turns Aristotle's "affections of the soul," which bestow meaning on speech, into a language itself with its own syntactic and semantic structure (1974: 52–53). However, mental language was devoid of some features that raise classic problems in the philosophy of language: ambiguity, equivocation, pronomial reference, and other anaphoric references. Moreover, the distinction between assertion and what is asserted also holds for a mental proposition, and thus what is *dicibile* or *enuntiabile* by a mental proposition is not defined in terms of natural language as *what is sayable*, but more broadly to *what is thinkable*, anticipating Frege's notion of a *Gedanke* or proposition as the content of what can be said or thought.

2.3 Renaissance Philosophy

Renaissance philosophers of language reacted to the increasingly abstract and esoteric nature of medieval work on language, and questioned its relevance to the philosophy of natural language. In step with the broader

reevaluation in Europe of nature and human capacities to know nature through observation beginning roughly in the middle of the fifteenth century, interest turned to language as a natural phenomenon and the expressive and persuasive functions of language, emphasizing the pragmatic features of speech. The semantic distinctions of medieval philosophy, especially those of the *sophismata* and *insolubilia*, were seen as arid abstractions that had no relevance to ordinary speech.

For example, Lorenzo Valla (1407–1457), in *Retilling Dialectics and Philosophy* (*Repastinatiodialecticae et philosophiae*), writes that "the customary manner of speaking [*usus loquendi*]" is the proper touchstone for all philosophy, including the philosophy of language, not formal logic (I: 679). Valla argued that a proper analysis of possessive pronomial constructions in ordinary language would obviate the need for a theory of supposition. A similar line of thought is followed by the Spanish humanist Juan Luis Vives (1492–1540), who explicitly recommended that rhetoric, from Aristotle's *Topics* to Cicero's (106–143 BCE) *Rhetorica ad Herrenium*, should replace formal logic. Insofar as formal logic contained useful principles, it was because they were drawn from "common usages of speech (*usus loquendi communem*)" (3: 42). For Vives, this was also true of rhetoric and grammar: they were prescriptive only insofar as they were based on customary linguistic practices.

The turn to customary language included a curiosity about languages around the world. This anthropological and natural historical perspective on human language was reflected in changes in the theory of translation during the Renaissance. Leonardo Bruni (*c.* 1370–1444), in *On Correct Translation*, argued that it was not enough to pay attention to the text, but that a proper understanding and translation of the text required knowledge of the history and culture in which it was written (1987: 201–212).

The rising interest in empirical knowledge during the Renaissance refocused the field of dialectics from the logic of justification to the logic of discovery and invention. For Rudolph Agricola (1444–1485) and Peter Ramus (1515–1572), the centerpiece of dialectics was not syllogistic logic, but the art of invention. According to Agricola in *De inventione dialectica* (*On Dialectical Invention*), dialectics was "the art of speaking with probability" and invention involved having methods for finding premises to support a desired conclusion, specifically, "thinking out the middle term" (1992: 16). This required that one's knowledge is organized in a fashion that allows for an efficient search for the relevant propositions. Borrowing from Aristotle, Agricola maintained that there are twenty-four basic topics or *loci* of knowledge. Ramus argued that a method is needed for classifying knowledge, which for him mainly meant arranging concepts in branching tables starting with the most general and most certain propositions. This became a hallmark of Ramist textbooks and promoted the search for method in the context of emerging modern science in the seventeenth century. In

the things which they are supposed to represent" (3.2.2). The ideas themselves can represent external objects, and thus words can secondarily signify external objects, but certain knowledge about those objects is severely limited.

Locke turns to language in his *Essay* because in the course of his examination of the nature of the ideas of the human understanding he concludes that natural language plays a significant role in the making of complex ideas, which are necessary for human knowledge. Accordingly, he devotes all of Book III of the *Essay*'s four books to language and, more generally, "the Doctrine of Signs [*sēmeintikē*], the most usual whereof being Words" and hence is "aptly enough termed also . . . Logick" is one of the three main branches of science (4.21.4). Locke, as did Hobbes, believed that human thoughts and perceptions on their own are fleeting and unstable, but by tying patterns of ideas to words human beings introduce stability to their thinking. In this manner human beings form abstract and general ideas, such as ideas of substances, causes, and kinds. Locke also believed that many philosophical problems are resolved by paying attention to the role language plays in the human understanding. For example, Locke rejects the traditional Aristotelian view about species on the grounds that distinct species and essences are nothing more than abstract ideas constructed with the use of words.

Locke had very little to say about linguistic structure, but he does recognize the important role of logical particles or syncategorematic words such as *is*, *not*, or *but* and exempts them from his theory that names signify ideas. Instead, these terms exhibit "the several Postures of the Mind" and are "marks of some Action, or Intimation of the Mind" (3.7.4). *Is* and *is not* are the general marks for the mind affirming or denying something, and other particles, such as conjunctions, serve to connect affirmations and denials. By linking predication to the psychological acts of affirming or denying that something is the case, Locke blurred the medieval distinction between predication and assent or affirmation.

While English philosophy in the seventeenth century emphasized the ways in which the mind mirrors language, on the European continent in the early modern period the idea that language mirrors nonconventional mind continued to flourish in the Cartesian tradition, particularly in *Logic or the Art of Thinking* (1996) by Antoine Arnauld (1612–1694) and Pierre Nicole (1625–1695) and the *General and Rational Grammar* (1975) by Arnauld and Claude Lancelot. These have come to be known as the *Port-Royal Logic* and the *Port-Royal Grammar*, named after the Janseist Port-Royal Abbey with which the authors were associated.

Drawing on scholastic logic, the *Port-Royal Logic* and *Grammar* envision a universal grammar that underlays the diverse structures of all natural languages. On their account, the universal grammar is a necessary consequence of the basic operations of the mind that are analyzed by logic: conceiving, judging, and reasoning. This is an anticipation of the

distinction between the deep and surface structure of language, and it assumes that the human mind has its own stable structure independent of natural language. Descartes explicitly rejected Hobbes's critique that reasoning requires language, arguing that what is unstable is the imagination, but reason does not require imagination and pure reason is stable. In the *Port-Royal Logic*, Arnauld and Nicole also argue that reasoning cannot depend on words because the signification of words is conventional, and in order to establish conventions human beings need to be able to reason.

They also preserve and clarify the scholastic distinctions between the extension and comprehension or intension, of a term. Specifically, Arnauld and Lancelot draw it for ideas. The comprehension of an idea is all "the attributes that it contains in itself, and that cannot be removed without destroying the idea" (1975: 39). The extension of an idea is all the "subjects" to which this idea applies, and subjects can be individuals or kinds. Since the words of natural language are parasitic on the mind, this distinction also applies to the terms of natural language. However, an important feature of the *Port-Royal Logic* is that while words are signs that indicate mental activity, they can signify things and the manners or attributes of things.

The Port-Royalists, like Locke, see language and logic as psychological phenomena. This is captured in the full title of the *Port-Royal Logic: Logic or the Art of Thinking*. The focus on how human beings actually think encourages the blurring of the distinction between predication and judgment. Judgments are propositions consisting primarily of nouns, pronouns, and verbs, Arnauld and Nicole write. The function of a verb "is nothing other than a word whose principal function is to signify an affirmation, that is, to indicate that the discourse where this word is employed is the discourse of a person who not only conceives things but who judges and makes affirmations about them (1996: 79). Thus built into the very nature of a proposition is the stance or attitude of the thinker, whether they are, for example, affirming, denying, or doubting something. That means strictly speaking for Arnauld, the attitude is not a take on an independent propositional content, but an essential component of the proposition.

Characteristically, Gottfried Wilhelm Leibniz (1646–1716) aimed to synthesize Lockean and Cartesian approaches to language. He rejects the idea that the structure and content of natural language are mostly arbitrary and conventional. While the words human beings use speaking a natural language are arbitrary and conventional, the natural language has a logical structure or form (*forme logique*) that it shares with human understanding, and with all possible thought, including divine thinking (1962b: 480). Anticipating Frege, Leibniz holds that the logical form of a language consists of the features that are relevant to logical validity, and he attempted to capture this in a logical calculus. He believed formal logic was a kind of "universal mathematics" that applied to every subject

matter, and if all human knowledge were systematized, logic would serve both justification and discovery. Building on the idea rooted in Ramon Lull's (1232–1316) mechanical aids for reasoning (e.g. concentric circles of concepts that can be turned to form new combinations), Leibniz suggested that all human thinking can be reduced to a finite number of simple concepts – an "alphabet of human thoughts" (1970: 222) – and all complex concepts, propositions, and inferences are combinations of these basic concepts. What remained of this ambitious and youthful project pursued in his *Dissertation on the Art of Combinations* is the project of developing a logical calculus that abstracts from specific contents.

Leibniz's recognition of logical form came with an appreciation of the distinction between propositional content and judgment. He writes in his commentary on Locke's *Essay*, the *New Essays*, that actual matters of fact are not the subject matter of logic, but possibility and necessity (1962b: 301). Accordingly, Leibniz maintains that much of what Locke maintains is true of actual thoughts, but this ignores possible thoughts, which includes possible affirmations that in fact are not affirmed. Moreover, deductive validity holds not only for actual thoughts, for example, judgments that affirm, deny, or doubt, but for possible thoughts as well. Leibniz accounts for these in terms of the "objects of thought," which are ideas (1962b: 109). Ideas have a non-conventional, mind-independent, and combinatorial structure of their own and this structure is shared by "intelligences in general," including God and angels (1962b: 276 and 397). In other words, ideas are a structure of concepts that are thinkable and propositions are complex concepts that are thinkable (1903: 512).

Diverse natural language can also express the same structure of ideas, that is, according to Leibniz, there is a precise mapping between the structure of the language and the structure of ideas, as there is one-to-one mapping between an ellipse and a circle. It follows that by expressing the structure of ideas, natural language can have the same structure. Leibniz maintained that this common structure can be shown by substitutions of equivalent phrases. For example, diverse grammatical forms of two sentences of different natural languages can be shown to share a structure by an orderly sequence of substitutions from one sentence to the other. Similarly, the logical structure of a natural language can be shown by such a sequence of substitutions from the natural language to a logical calculus. Leibniz applies this to subjects, predicates as well as particles, such as *but*. Responding to Locke on particles, Leibniz writes in the *New Essays* that they are very important because they reveal the "forms of the understanding" rather than attitudes or stances (1962b: 330).

The principle that guides such substitutions has come to be known as the principle of substitutivity, *salva veritate*. Leibniz has many formulations of this principle, but this one is laid down as Definition 1 in Leibniz's most developed draft of a logical calculus: "Same or coincident terms are those which can be substituted for each other anywhere while preserving truth

[*Eadem seu coincidentia sunt quorum alterutrum ubilibet potest substitui alteri salva veritate*]" (1962a: 831; 1970: 371). Following standard scholastic usage, terms are the elements of a proposition, for example the subject and predicate of a proposition. These elements are ideas or concepts, and so this principle identifies interchangeable concepts. However, since propositions are complex concepts, Leibniz also applies this principle to propositions. Finally, insofar as natural language signifies concepts and propositions, this principle also defines sameness or coincidence of meaning for natural language. The lasting significance of Leibniz's principle of substitutivity is that it explicitly ties meaning to truth.

2.5 Late Modern Philosophy

Leibniz's contributions to the philosophy of language became dormant in the late modern period and remained so until the second half of the nineteenth century. The late modern period is characterized by naturalistic theories of language that focused on the anthropological, biological, and historical properties of natural language rather than their formal features. Arguably this trend has roots in Locke's psychological account of linguistic meaning, which inspired Étienne Bonnot de Condillac (1715–1780). Condillac saw his *Essay on the Origin of Human Knowledge* as a "supplement to Locke's *Essay*" in that it aimed to give an account of the origins of the operations of the human understanding, such as attention, memory, reflection, or abstraction, that are necessary to the formation of complex ideas (2001: 7). Condillac claims that the association of ideas with bodily signs, such as gestures at first and words later with the development of the organs of speech, makes the operations of the understanding possible. Accordingly, natural language is constitutive of all human thinking. Moreover, these signs are rooted in the social nature of human beings, and so human thinking is seen as necessarily social.

This set of themes – the quest for a naturalistic and genetic account of the human mind and assigning to natural language and society an essential role in human thought – have a dominant role in eighteenth- and early nineteenth-century philosophy of language. This period developed in the wake of Immanuel Kant's (1724–1804) *Copernican Turn*, namely the view that the categories of human understanding play an essential role in the structuring of human experience, so much so that human understanding projects properties onto the perceived objects. For Kant, these categories are prior and independent of natural language, but naturalistic trends after Kant tended to assign the source of structure to natural language. Johann Georg Hamann (1730–1788) argues that natural language is "the only, the first, and the last organon and criterion of reason," and "custom and usage [*Usum*]" are the standards of correctness for natural language. The obsession with structure and form that, according to Hamann,

characterized Kant's philosophy as well as scholasticism is a "cold prejudice for mathematics" (1993: 207–208).

Johann Gottfried Herder (1744–1803) shares Hamann's disdain for form, arguing in his *Sprachphilosophische Schriften* (*Treatise Concerning the Origins of Language*) that language begins without grammar simply as a set of impressions and words, a "vocabulary of nature" (1960, v: 51–53). Herder, like Condillac, is a linguistic determinist. In his critique of Kant – *Metacritique: Concerning the Purism of Reason* – he maintains that natural language is essential to reflection and abstraction and hence essential to all human thinking (1960: 183). Silent thinking involves "inward speaking," which does not use a special mental language, but uses inner representations of a natural language (1960: 189). Thus natural language determines how we think, and ultimately philosophy, including metaphysics, just is "a philosophy of human language" (1960: 184). Herder is especially keen to emphasize the social nature of language and the diversity of languages emerging from diverse geographies, environments, and needs. Herder emphasizes differences between not only societies and historical epochs, but individuals as well. Individuals are moved by passion, emotion, and experience, and these vary across individuals as well as across time for an individual (Herder, 2002: 192–193, 219–220, and 292). Whether for Herder this diversity is also incommensurable, that is, whether Herder is also a relativist, is less clear. Herder maintains that "the language of sensuous people" is "unintelligible for us" (2002: 28), but he also suggests that the gulf between individuals and societies with vastly different inner and outer lives can in principle be overcome through sympathy and "feeling yourself into everything [*Einfühlung*]" (2002: 292).

While language is essentially social, Herder is emphatic that it is not and cannot be a product of conventions because conventions rely on language. Instead, natural language is an innate biological endowment that involves two components: individuality as well as interaction with other human beings to evolve. Human beings are essentially free and active individuals as well as creatures of "the herd, of society" (1960: 56–57 and 67–68). While this means that languages evolve and develop, for Herder it is useless to speculate about the origins of language in the sense of when and how human beings begin to use language. Nevertheless, Herder gives speculative histories of language development and maintains that the first languages were expressions of passion and emotion, including fear and pain, and expression remains the primary function of language, not description. For Herder, this means that human language is a creative expression, and poetry is older than prose (1960: 35–36).

Natural language as a creative expression, including musical expression, is a central theme for arguably the founder of modern linguistics, Wilhelm von Humboldt (1767–1835). In his book-length methodological and programmatic introduction to his three-volume study *On the Kawi Language on the Island of Java*, Humboldt maintained that natural language is an

scholastic term "*connotare*," Mill maintains that general or common names not only denote but also have a connotation. A connotative name denotes a class of individuals and implies an attribute (2011: 37 and 94–95). In the case of connotative terms, the connoted attribute has the additional semantic function of determining the denotation.

The import of a proposition where the subject is a singular term and the predicate a general term, for example "The summit of Chimborazo is white," is that "the individual thing denoted by the subject has the attribute connoted by the predicate." In this case, the attribute connoted by "white," according to Mill, "consists in the physical fact, of its exciting in human beings the sensation . . . of white" (2011: 99–100). In general, Mill's semantics was part and parcel of his overall commitment to naturalism. For Mill, human knowledge of the external world is ultimately based on sensations and hypotheses about what causes them. For the purposes of semantics, the attribute a general name connotes is a sensation or set of sensations, although it is understood that a sensation is an effect of powers to cause it (2011: 68–69). Mill uses a similar strategy to account for arithmetic propositions. For example, the term *two* always denotes some set of objects of a particular kind, for example pebbles, but it connotes a certain kind of activity, namely, "that, to compose the aggregate, one pebble must be joined to one pebble" (2011: 589). It is this naturalistic account of arithmetic that Frege derided in the *Foundations of Arithmetic* as "gingerbread or pebble arithmetic" (1978: vii).

Mill's psychological naturalism was well received by nineteenth-century German naturalists, most notably by Justus von Liebig (1803–1873) and Hermann Helmholtz (1821–1894). In the philosophy of language, however, naturalists were critical of formal and mathematical approaches to language. Echoing the critics of Renaissance humanism, Otto Friedrich Gruppe (1804–1876) rejected formal characterizations of natural language because they abstract from the context of actual linguistic practice. The appeal to common linguistic usage (*Sprachgebrauch*) becomes a central feature of Fritz Mauthner's (1849–1923) critique of language or linguistic criticism (*Sprachkritik*), who saw Locke as the "founder" and "genius" of the philosophy of *Sprachkritik* (1997: 1: cxxv and 3: 319). For Mauthner, word and concept, and speaking and thinking are for methodological purposes identical, and speech is an intentional, purposive human action (1997: 1: xiii and 278–281). The complexity of purposes and practical contexts that drive human speech do not have an underlying logical form. Human language "is not mathematical," Mauthner writes (1997: 1: 24–25). While Wittgenstein explicitly distances himself from Mauthner's linguistic criticism in his *Tractatus Logico-Philosophicus*, which is explicitly indebted to Frege, Wittgenstein's about-face in his *Philosophical Investigations* has these themes in common with Mauthner's philosophy of language.

Nevertheless, Mill's *System of Logic* was also well received by the idealist reaction to naturalism in the second half of the nineteenth century in Germany, beginning with Adolf Trendelenburg (1802–1872), for its revival of the study of formal logic. Trendelenburg and Hermann Lotze (1816–1881) defended the notion that logic as well as the contents of mind and language were neither material nor psychological entities. Lotze's suggestion that concepts can be understood on the model of mathematical functions is particularly trenchant. Their commitment to the autonomous status of contents and their inferential relationships, explicitly tied to Platonism in the case of Trendelenburg, influenced a generation of students, including Franz Brentano (1838–1917) and Frege. While Brentano's primary interest was not language, but the intentionality of mental phenomena, which he explained in terms of the "intentional in-existence of an object" (1995: 68), Frege brought the idealist reaction to naturalism to bear on both formal logic and analytic philosophy of language in the twentieth century (see the next chapter).

3

How the Philosophy of Language Grew Out of Analytic Philosophy

Daniel W. Harris

3.1 Introduction

My task in this chapter is to tell the origin story of the contemporary philosophy of language as a chapter in the history of analytic philosophy. Rather than aiming for completeness, I will trace out several threads that combine to give a useful perspective on how the philosophy of language got to where it is now.

In § 3.2, I focus on the development of semantics, which began as a collection of methodological tools for applying formal languages to philosophical problems. In § 3.3, I trace the origins of contemporary debates about the nature of propositional content. In § 3.4, I give a brief history of philosophical work on speech acts and pragmatics, emphasizing the origins of current debates in conflicting threads of Wittgenstein's writing.

Many of the ideas to be canvassed here began their careers as tools for thinking about philosophical debates but have gradually been repurposed as part of the philosophical and scientific study of natural language. This process has been both an effect and a cause of increased collaboration between philosophers and linguists. Whereas the philosophy of language began the twentieth century as philosophy's methodological R&D department, it increasingly belongs to the theoretical wing of an interdisciplinary scientific research program. This reorientation is an overarching theme of what follows.

Before I begin, a disclaimer: my aim is to outline the major philosophical influences on the philosophy of language as it is now practiced. This must be distinguished from two other possible aims. First, I will not attempt to give an exhaustive summary of twentieth-century work in the philosophy

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of language, or to allocate attention to ideas in accordance with their importance in their historical contexts. I will, for example, give short shrift to ideas that were highly influential in their day but that have been mostly cast aside. Second, I will not be concerned exclusively with what I take to be the correct readings of the historical figures whom I discuss. Misreadings sometimes have greater influence on subsequent work, and so I will attend to some of those here.

3.2 The Origins of Natural-Language Semantics

The aim of natural-language semantics is to build a computational model of how the meanings of complex expressions compose as a function of their structure and the meanings of their parts. Semantics is now a thriving interdisciplinary research program. Philosophers have contributed directly to this program since its beginnings, often in collaboration with linguists and sometimes with computer scientists, mathematicians, and psychologists. Philosophers have also tended to take a particular interest in the applications of semantics to debates elsewhere in philosophy. As semantics has developed into an empirical science, it has also become an increasingly authoritative source of empirical constraints on philosophical theorizing about language.

The most important figures in the creation of this research program were the philosophers Donald Davidson (1967b, 1967a), Richard Montague (1970c, 1970a, 1973), and David Lewis (1970), though many others made important early contributions.[1] Natural-language semantics has been done in a variety of methodological frameworks, and philosophers have played an important role in comparing the foundational assumptions of these frameworks. At present, the most influential framework is the one codified in textbooks by Heim and Kratzer (1998) and von Fintel and Heim (2011).

The early natural-language semanticists drew on a methodological tool kit that was almost ninety years in the making – one that analytic philosophers had developed to study formal languages created for various philosophical ends. What was new in the work of Davidson, Montague, and Lewis was the idea that this tool kit could be fruitfully adapted to understand natural language. Earlier philosophers had been explicitly pessimistic about the prospects of such a project. Nonetheless, it was these philosophers' work that made natural-language semantics possible. In the rest of this section I will survey some of the major contributions to this prehistory of natural-language semantics.

[1] In particular, Barbara Partee deserves considerable credit both for her own seminal contributions (collected in Partee, 2004a) and for her role in spreading the influence of Montague's framework. See Partee (2004b) for a history of early work in natural-language semantics and a memoir of Partee's role.

The semantic study of formal languages grew out of work by Gottlob Frege and Bertrand Russell on the foundations of mathematics. Their pursuit was logicism, the attempt to reduce mathematics to purely logical concepts and axioms. This project demanded a more powerful logic than those previously available, and the development of this logic required formal languages with greater expressive power than what had previously been available. The creation and investigation of these formal languages inaugurated many of the discussions that make up contemporary philosophy of language.

Frege contributed several lasting insights to the study of how the meaning of a complex expression is constrained by its structure. He changed the way that we think about sentence structure by replacing the simple subject–predicate sentence structure of earlier formal languages with a more sophisticated analysis. Each atomic sentence is built up from a predicate expression and one or more terms (names or variables), complex sentences may be built up from other sentences using connectives, and quantifiers may take scope over any sentence or subsentence, binding variables within it (Frege, 1879). Frege (1891) argued that expressions' referents combine in the way that functions combine with their arguments: sentences refer to truth-values, names refer to objects, predicates refer to concepts (which Frege identified with functions that map objects to truth-values), quantifiers refer to functions that map concepts to truth- values, connectives refer to truth functions, and so on. As we would now put it, Frege organized the referents of expressions in different grammatical categories into a hierarchy of semantic types.

Of Frege's ideas about expressions' semantic types, perhaps the most enduring and influential has been his view that quantifiers refer to second-order functions – functions that contemporary semanticists categorize as type-$\langle et, t\rangle$ functions.[2] For example, in asserting *every philosopher is a scholar*, what we are doing is asserting that the second-level function denoted by *every philosopher* is one that maps the first-level function denoted by *is a scholar* to truth. By way of tweaks and refinements at the hands of Mostowski (1957), Montague (1973), and Barwise and Cooper (1981), this idea has become the basis for generalized-quantifier theory, which has been one of the most fruitful areas of natural-language semantics.[3]

The general picture embodied in Frege's ideas about semantic composition has been so influential that Heim and Kratzer (1998: 1) open their textbook by describing their project as "the Fregean program." As most semanticists see it, their main goal is to reverse-engineer the function by which the meanings of complex expressions can be computed from their

[2] This way of typing functions is a variant of the notation used by Alonzo Church (1940, 1941) in formulating his typed lambda calculus. Church's lambda notation has become a crucial part of the metalanguage in which contemporary semantics is done.

[3] See Peters and Westerståhl (2006) for a survey of work on quantifiers and Partee (2013) for a history of their "starring role" in natural-language semantics.

Even Russell's theory of descriptions lives on, though in altered forms and divorced from his epistemology. For example, Neale (1990) defends a version of the theory in which definite descriptions are treated as restricted quantifiers rather than as incomplete symbols in Russell's sense. Meanwhile, several of the main alternative treatments of definite descriptions can be traced to Frege (1892), who argued that definite descriptions, like names, presuppose the existence of their referents and fail to refer if their presuppositions are false. The concept of presupposition, which is often credited to Frege, has now become the subject of a massive literature in semantics and pragmatics.[7] Many still think of definite descriptions and other definite noun phrases (including names and pronouns) as triggering presuppositions of various kinds (see, e.g., Roberts, 2003).

Even Russell's view that most proper names must be analyzed as descriptions has contemporary successors, although Kripke (1980) is widely seen as having refuted the specifics of Russell's view. Most recently, Fara (2015) has argued that what appear to be syntactically simple occurrences of proper names are actually the nominals of definite descriptions that have unpronounced definite determiners, so that the LF of *Bertrand was right* could be more perspicuously represented by *the Bertrand was right*. Although this is not Russell's view, he does suggest that names should sometimes be analyzed as descriptions of the form "the person called *n*" (Russell, 1911: 119). There are, of course, many alternative theories of names, some of which I will discuss below. In general, names and descriptions have occupied an outsized role in the philosophy of language, and Frege and Russell continue to loom over these debates.

Another early twentieth-century logician whose work contributed some of the basic ingredients of contemporary semantics is Alfred Tarski, whose theories of truth (1935, 1944) and logical consequence (1936) have both had lasting influence.

Tarski's theory of truth is a recipe for assigning truth conditions to sentences in a formal object language with limited expressive power using an axiomatic theory stated in a formal metalanguage with greater expressive power. Much of this procedure is visible in most natural-language semantic theories since Davidson (1967b). In particular, semantic theories begin with axioms assigning meanings to primitive expressions in an object language, generate theorems assigning truth conditions to object-language sentences, and are normally given in a notationally enriched metalanguage. However, the superficial similarity of Tarski's truth definitions to contemporary semantic theories masks deep differences in their respective explanatory goals. Tarski's procedure begins from assumptions about the meanings of object-language expressions in order to offer a stipulative definition of a truth predicate. Modern semantic theories, by contrast,

[7] For an overview of the literature on presupposition, see Beaver and Geurts (2014).

take the notion of truth as primitive in order to understand the meanings of natural-language expressions. As Burgess (2008: 166) puts it, "We constantly find in the writings of Davidson and disciples mentions of a 'Tarskian' theory of truth, where 'counter-Tarskian' or 'anti-Tarskian' would have been more accurate."

Aside from lending a general shape to modern semantic theories, Tarski's theory of truth also provided an influential model of variable binding.[8] The method is this: a variable's referent is relativized to an arbitrary sequence, or assignment function. This relativization is inherited by expressions containing the variable, up until it is bound by a variable-binding expression, such as a quantifier, which render assignment functions inert. In recent work, the role of assignment functions has been expanded. Context-sensitive expressions, including unbound pronouns, are often treated as having assignment-relativized contents, and assignments are thought of as formal stand-ins for the utterance context (Heim and Kratzer, 1998: 242–243) or the speaker's referential intentions (Heim, 2008: 35–36).

Tarski's theory of logical consequence, unlike the proof-theoretic accounts of earlier logicians, defines consequence model-theoretically, as the preservation of truth under arbitrary reinterpretations of non-logical vocabulary (1936). Repurposing Tarski's ideas, Montague (1974: 188) argued that "the construction of a theory of truth ... under an arbitrary interpretation [is] the basic goal of serious syntax and semantics." In the hands of contemporary semanticists, Tarski's theory has become an essential tool for empirically assessing semantic theories, since it allows predictions about logical consequence to be generated, which can then be tested against the intuitions of native speakers.

A fourth early analytic philosopher whose work continues to exert a major influence on semantics is Carnap, whose *Introduction to Semantics* (1942) synthesized and disseminated the semantic ideas of Frege, Russell, and Tarski, and whose *Meaning and Necessity* (1947) articulated much of the framework of intensional semantics that, via Montague, most semanticists still work with.[9]

Carnap's main innovation was the use of possible worlds, which he modeled as state descriptions – maximal consistent sets of atomic sentences.[10] His use of possible worlds allowed Carnap to distinguish between each expression's intension and extension – a distinction that is inspired by, though distinct from, Frege's sense–reference distinction (Carnap, 1947: secs. 28–30). In Carnap's usage, the extension of a singular

[8] It is noteworthy that the small minority of contemporary semanticists who reject a Tarskian account of variables call their theory "variable-free semantics" (Jacobson, 1999, 2014), suggesting that Tarski's account has become synonymous with his subject matter.

[9] Church (1940, 1946) developed his intensional logic in parallel, but Carnap's formulations have proven to be more influential.

[10] Carnap (1947: 9) credits Leibniz and Wittgenstein (1922) as the inspirations for his use of possible worlds.

term is the entity to which it refers, the extension of a one-place predicate is the set of entities of which it is true, the extension of a sentence is its truth-value, and so on. An expression's intension is a function from each possible world to its extension at that world.[11]

Carnap's aim in developing his intensional semantics was not to understand natural language. In *Introduction to Semantics*, he had distinguished "descriptive semantics," which is the study of meaning in natural language, from "pure semantics," which is the stipulative "construction and analysis of a semantical system," and made it clear that he was interested only in the latter (Carnap, 1942: §5). But Carnap's ideas were refined over the next two decades, culminating in Montague's application to natural language. Along the way, important contributions were made by many logicians, often independently and in parallel. (For the messy details, see Copeland, 2002.)

One important advance over Carnap's model was the addition of a binary accessibility relation over worlds – an idea that was developed independently by Prior and Meredith (1956), Hintikka (1961), and – most famously – Kripke (1963, 1959). Carnap had treated modal operators as unrestricted quantifiers over all state descriptions: "Necessarily *S*" is true if and only if *S* is true at every possible world. By contrast, Kripke's models treat modals as quantifiers whose domain is restricted to the worlds that are accessible from the world of evaluation. By placing different conditions on the accessibility relation and thereby restricting modals' quantification in different ways, many different modalities can be expressed. The original point of this complication was to devise soundness and completeness results for a range of modal systems, but the same idea has turned out to have applications in natural-language semantics. Most influentially, Kratzer (1977, 1981) showed how to account for the fact that some modals can express different modalities – e.g. *must* can be a deontic or epistemic modal – by arguing that modals are sensitive to contextually supplied "conversational backgrounds" which serve to restrict their domains of quantification in different ways. Most of the enormous contemporary literature on modals takes Kratzer's work as a jumping-off point.[12] A similar story can be told about propositional attitude verbs, which, building on Hintikka's (1962) early work on epistemic logic, are now likewise often understood as modals that quantify over sets of worlds that are epistemically accessible (in various senses).[13]

The treatment of modals as restricted quantifiers over worlds also led to an ongoing explosion of work on conditionals. Two threads in the history of analytic philosophy had provided fuel. First, C. I. Lewis demonstrated

[11] The idea that intensions are functions from worlds to extensions is implicit in Carnap (1947), but Montague (1974: 145) reports that Carnap made the idea explicit in conversation, and this is the implementation that Montague and Lewis popularized.

[12] For a survey on the semantics of natural-language modals, see Portner (2009).

[13] For the standard textbook treatment of these ideas, see von Fintel and Heim (2011: ch. 2).

a range of inadequacies of the truth-functional conditional of classical logic, gave an axiomatized treatment of a "strict conditional" that, he thought, did better, and used this strict conditional to axiomatize several of the systems of modal logic for which Kripke and others would later prove soundness and completeness theorems (Lewis, 1918; Lewis and Langford, 1932). Lewis thus linked conditionals to modal logic and sparked interest in both. A second tradition – exemplified by Goodman (1955) – identified a web of connections between counterfactual conditionals and a collection of weighty philosophical topics such as the metaphysics of dispositions and causation, the nature of scientific laws, and human agency. The explosion was sparked by Robert Stalnaker (1968) and David Lewis (1973), who proposed variations on the following idea: for a conditional "if A then C" to be true at a possible world *w* is for its consequent, 'C', to be true at the world or worlds that are most similar to *w* and at which its antecedent, 'A' is true. This treatment makes the conditional a kind of restricted modal operator that quantifies over a set of worlds determined by a similarity relation on worlds together with the conditional's antecedent. Although the Stalnaker–Lewis approach is far from the only school of thought on the semantics of conditionals, it remains the default view that others attempt to either refine or challenge.[14]

A further important advance over Carnap's (1947) semantics was the treatment of possible worlds as primitive elements in the model rather than as state descriptions. For Carnap, "necessarily *S*" is used to make the claim that *S* is true in every state description, which is tantamount to saying that there is no way of reinterpreting the non-logical symbols of the language so as to make *S* false. The notion of necessity involved is thus linguistic, corresponding to logical truth or analyticity. Treating possible worlds as primitive elements in models opens them up to various interpretations, and allows nonlinguistic modalities to be expressed. Most influentially, Kripke (1980) took the worlds in his models to be the *metaphysically* possible worlds and argued that necessity, analyticity, and a prioricity are distinctively metaphysical, semantic, and epistemic concepts, respectively.[15]

Meanwhile, Prior (1957, 1967) devised logics in which tenses are treated as modal operators that quantify over times rather than worlds. Kripke's and Prior's ideas were combined and generalized by Montague (1970b, 1970c), who took intensions to be functions from *indices* to extensions, where each index includes a world, a time, and possibly other factors on which expressions' extensions might depend. This technique would later be further generalized in a wide variety of ways. For example, Lewis

[14] For a summary of work on counterfactual conditionals, see Starr (2019). For a summary of work on indicative conditionals, see Edgington (2014).

[15] On the philosophical significance of this idea, see Soames (2003b: chs. 15–16).

(1979a) posits a form of essentially first-personal, or *de se* content that can be modeled as functions from a world, a time, and *an agent* to a truth-value. More recently, relativists of various stripes have argued that indices also include features that represent the standards relative to which some claims are true or false.[16]

Another generalization of intensional semantics has formed the basis of the most influential theories of the context sensitivity of natural-language expressions. The standard presentation of this generalization is due to Kaplan (1989).[17] In addition to an extension and an intension, Kaplan's semantics assigns each expression a *character*, which can be thought of as a rule for determining the expression's content in a given context of utterance. Formally, Kaplan models characters as functions from contexts to intensions, and treats contexts as ordered tuples of entities that will be present in any real-world context of utterance and on whose identity the intension of a context-sensitive expression could depend. One of the coordinates of a context is the speaker, for example, and Kaplan models the character of the word *I* as a function that maps each context to the speaker in that context. Whereas Montague's semantics took each expression's extension to be dependent on a single index, Kaplan's semantics introduced a kind of double indexing, in which one index represents the way in which expressions' contents depend on the contexts in which they are uttered and a second index represents the way in which the circumstances in which a content is evaluated determined its extension. The idea of double indexing – sometimes called "two-dimensional semantics" – has been put to a surprising number of uses in semantics and in philosophy more generally.[18] And, in general, an enormous number of natural-language expressions have been claimed to be context sensitive and given treatments along Kaplanian lines.

Take a course in natural-language semantics and you will likely be taught how to construct an axiomatic truth theory for a fragment of a natural language. Taking as its input a sentence's LF, the theory will assign meanings, modeled as functions of various types, to the sentence's simple parts and will then provide a recipe for deriving the sentence's intension by combining these functions with one another. Although I am leaving out many details and advancements, it should be clear that contemporary semantic theories are covered with the fingerprints of Frege, Russell, Tarski, and Carnap.

At the same time, I hope it's clear that the aim of the game has shifted from the stipulative construction of philosophical tools to the empirical description and explanation of natural language. Although many philosophers of language still attempt to draw philosophical conclusions from semantic theories, empirical adequacy now trumps other ways of

[16] For an overview of recent work on relativism, see Baghramian and Carter (2018: §5).

[17] But see also Kamp (1971) and Vlach (1973). [18] For an overview, see Schroeter (2017).

found it useful to generalize intensions so that they become functions from more complex indices to truth-values. And so we find some theorists debating whether propositions are sets of world–time pairs (Montague, 1970c), sets of world–time–agent triples (D. K. Lewis, 1979a), or sets of some other complex indices. We can group these proposals together by saying that they treat propositions as sets of truth-supporting circumstances.[23,24]

3.4 Wittgenstein, Language Use, and Speech Act Theory

A third major area of current work in the philosophy of language deals with pragmatics – the theory of how we use language to communicate and to perform speech acts of various kinds, and of the mechanisms by which discourses evolve. Contemporary pragmatics developed out of a mid-century movement away from the analysis of formal languages and toward naturalistic attention to the messy details of ordinary speech.

The most important source of this tradition is Wittgenstein's late work. In the opening passages of the *Philosophical Investigations* (1953/2009), Wittgenstein criticizes a "philosophical notion of meaning" that "is at home in a primitive idea of the way language functions" (2009: §2). Among his targets is the idea that understanding the meanings of natural-language expressions is a matter of understanding what they refer to. He attributes this picture to Augustine, but also to unnamed "logicians" (think Frege and Russell) and "the author of the *Tractatus Logico-Philosophicus*" – i.e. his younger self (2009: §23). In place of this picture, Wittgenstein suggests that we should attend to the multifarious roles that language use plays in what he calls "language games," a term that he uses both for actual games involving language (§7) and also for all of the human activities, or "forms of life," in which we use language (§19). To understand an expression is to understand the roles it plays in one or more broader activities. "For a large class of cases of the employment of the word 'meaning,'" Wittgenstein says, "this word can be explained in this way: the meaning of a word is its use in the language" (2009: §43).

According to an influential reading of Wittgenstein, language use and all other rule-governed activities are essentially social.[25] Driven by their foundationalist epistemology, Russell and some of the logical empiricists held that all scientific truths could, at least in principle, be analyzed into essentially private statements about the contents of individual agents'

[23] See Soames (1987) for this terminology, and for an influential argument against treating propositions as sets of truth-supporting circumstances. For philosophical defenses of possible-worlds propositions, Stalnaker (1984) and Lewis (1986: §1.4).

[24] For surveys of the contemporary literature on propositions, see McGrath and Frank (2018) and Hanks (Chapter 19, this volume).

[25] On the controversy over the accuracy of this reading, see Canfield (1996).

sensations. One important part of the philosophical context for Wittgenstein's philosophy of language was his ambition to demonstrate the incoherence of this project, most famously by objecting to the idea of private languages that it presupposes.[26]

Wittgenstein's ideas about language played a central role in his anti-theoretical, therapeutic approach to philosophy, whose aim was to diagnose and dissolve self-inflicted philosophical confusion rather than to give theoretical answers to philosophical questions (see, for example, Wittgenstein, 2009: §133). One source of philosophers' confusion, Wittgenstein argued, is their tendency to take a piece of language that has a clear role in a particular language game and attempt to extend its use beyond this natural habitat and into philosophical theorizing. "Philosophical problems arise," he says, "when language *goes on holiday*" (2009: §38).

One way that Wittgenstein's anti-theoretical posture manifests itself is in his imperviousness to straightforward interpretation. Rather than a theory, what we find is a discussion with many evocative but difficult-to-reconcile thoughts. This is particularly true of Wittgenstein's multifaceted idea of meaning as use. Somewhat ironically, many of the conflicting facets have grown into competing positions in contemporary pragmatics, as philosophers have attempted to build Wittgenstein's insights into theories. Some of these attempts to tame Wittgenstein's ideas have been self-conscious and acknowledged. For example, Brandom introduces his own influential project in the philosophy of language by saying that "one of the overarching methodological commitments that orients [his] project is to explain the *meanings* of linguistic expressions in terms of their *use* – an endorsement of one dimension of Wittgenstein's pragmatism." But in order to "work out the details of a theory of meaning or, for that matter, of use," Brandom says, we must reject Wittgenstein's "theoretical quietism" (1994: xii). Most of the other major figures in contemporary pragmatics have been less explicit about their debts to Wittgenstein, though all can be viewed as attempting to theorize the relationship between meaning and use that he was the first to posit.

A case in point is Grice's intentionalist project, which aims to reduce facts about the semantic properties of linguistic expressions to facts about what speakers mean by them, and in turn to facts about speakers' psychology. On Grice's view, to mean something is to behave in a way that is intended to change an addressee's mind, in part by revealing to them the intention to do so (Grice, 1957, 1969). Speech acts of different kinds are intended to change the addressee's mind in different ways.[27] For an expression to have a meaning for a group of speakers is for the group members to have a shared "procedure in their repertoires" to mean

[26] Wittgenstein's private-language argument and related remarks about rule following have spawned an enormous literature, much of it centering on an interpretation due to Kripke (1982). For overviews of this literature, see Candlish and Wrisley (2014) and Miller (Chapter 23, this volume).

[27] See also Bach and Harnish (1979), Schiffer (1972), Strawson (1964).

something by uttering it (Grice, 1968).[28] Grice's view remains highly influential, both in philosophy and in the cognitive sciences, where it has animated theories of the cognitive mechanisms underlying communication, their evolution, and their development in children.[29] At least part of Grice's philosophical motivation was to counter the widespread mid-century skepticism of semantic and psychological notions typified by Quine (1951, 1960) and Ryle (1949). Later intentionalists would articulate this motivation more explicitly, arguing that their project was part of a larger attempt to find a place for meaning in the natural world (Schiffer, 1982; Loar, 1981).

Grice (1975) is also responsible for developing the most influential theory of how we communicate in nonliteral and indirect ways. We do this, he argued, by exploiting our interlocutors' tacit cooperativity. By making an utterance that would be uncooperative if literal, we prompt our interlocutors to avoid that conclusion by seeking an additional or alternative hypothesis about what we intended. Grice dubbed this sort of nonliteral or indirect act of meaning something an "implicature." Grice's original philosophical applications of his theory of implicature were to defend a causal theory of perception (1961) and to dissolve the apparent methodological tension that divided approaches to philosophy centered around formal logic and ordinary language, respectively (1989: chs. 1–2). But his theory has now become enormously influential mainly as a contribution to natural-language pragmatics.

A second theory of language use to emerge from postwar Oxford was J. L. Austin's (1962, 1963, 1970) theory of speech acts. Austin took speech acts to be conventional procedures – acts that are performed by conforming to social conventions. As one of his paradigm examples, Austin considered the case of performing a marriage ceremony – a ritual whose nature and conditions of successful performance are bound up with an elaborate social institution.

Austin held that a speech act can be analyzed at several levels of abstraction. A single utterance may constitute a *locutionary* act of saying that the addressee's dog is poorly trained, an *illocutionary* act of insulting them, and a *perlocutionary* act of offending them. Locutionary acts are individuated in terms of their sense and reference (Austin, 1962: 93), illocutionary acts are individuated by their force, which Austin takes to be governed by social conventions, and perlocutionary acts are individuated in terms of their extra-conventional effects.[30] Searle (1968, 1969) reworked Austin's

[28] Later intentionalists, inspired by Lewis (1969, 1975), replaced Grice's talk of procedures with theories of linguistic convention (Loar, 1976, 1981; Schiffer, 1972, 1982).

[29] Scott-Phillips (2014), Sperber and Wilson (1995, 2002), Tomasello (2003, 2008).

[30] Austin spent the first half of *How to Do Things with Words* on a precursor view according to which utterances can be divided into constatives (statements and their ilk) and performatives (see also Austin, 1946). Austin spends so much time on this view only to abandon it because one of the negative goals of Austin's lectures is to undermine the distinction between cognitive and noncognitive sentences, which had been central to the philosophical methodology of the logical empiricists.

locution–illocution distinction as the distinction between the propositional content and force of an illocutionary act, and this distinction is still widely assumed, even among non-conventionalists.[31]

A third approach to the connection between meaning and use to arise in Wittgenstein's wake was due to Wilfrid Sellars (1954, 1969), one of whose defining legacies is his formulation of a functionalist theory of both linguistic and mental content. On Sellars' view – *contra* (e.g.) Grice – mental states have no explanatory priority over speech acts, and the contentfulness of both is to be explained in terms of the overall functional roles they play in an agent's perceptions, inferences, and actions. In developing this view, Sellars emphasized the sociality of language, saying that, "As Wittgenstein has stressed, it is the linguistic community as a self-perpetuating whole which is the minimum unit in terms of which conceptual activity can be understood" (1969). For Sellars, this makes language use, and intentionality in general, a form of "norm-conforming behavior" – an activity whose moves are governed by social rules (Sellars, 1954: 204).

Two contemporary approaches to speech acts build on Sellars' ideas.[32] The most influential defender of the first is Robert Brandom (1994, 2000, 2008), who has sought to understand the nature of human thought, language use, and rationality in terms of the roles that these activities play within a language game of giving and asking for reasons (1994: ch.3). Speech acts, on Brandom's view, are public moves within this language game, and Brandom thinks of them, fundamentally, as undertakings of social commitments.[33] A second strand was first developed by Ruth Garrett Millikan, who understands speech acts in terms of their proper function of producing certain effects in addressees. A speech act's proper function may be the result of a natural-selection-like process of differential reproduction and needn't involve intentions on the part of the speaker (Millikan, 1984, 1998). This idea has been further developed by signaling theorists using the tools of evolutionary game theory (Skyrms, 2010; Zollman, 2011).

Another influential mid-century attempt to connect linguistic meaning to language use is due to Michael Dummett, who argued that the aim of a theory of meaning is to say both "*what* the speaker knows, but also how his knowledge is manifested" (1975: 128). Since our knowledge of language is implicit, Dummett argued, to understand how a speaker manifests their knowledge of language is to understand how they use language. Synthesizing ideas that he finds in Frege and Wittgenstein, Dummett argued that the publicity of the sense of a word required it to be "uniquely

[31] The basic idea behind this distinction goes back to Frege (1879), whose formal language distinguishes thoughts from the act of judging or asserting them, and whose *Foundations of Arithmetic* (1884) was translated into English by Austin.

[32] On the relationship between the two, see Millikan (2005a).

[33] For some related views, see Geurts (2019a), Kukla (2014), Kukla and Lance (2009), MacFarlane (2011); Peregrin (2014); Tirrell (2012).

determined by the observable features of [the word's] linguistic employment . . . ; it follows that a grasp of its sense is fully manifested by the manner in which the speaker employs it" (1975: 135). One consequence of this view, according to Dummett, is that the notion of warranted assertibility must play some of the roles that truth is normally taken to play in semantic theorizing. Although most of the details of Dummett's philosophy of language have lost currency, the idea of warranted assertion – and, in particular, the broader question of what epistemic norm(s) governs assertion – has turned out to be enormously influential.[34] Most notably, Dummett's student Timothy Williamson (2000, 1996) has argued that what makes a speech act an assertion is that it is governed by the norm that one must assert only what one knows. This claim has given rise to a substantial literature in which theorists assume that assertion can be characterized by an epistemic norm and proceed to debate the nature of this norm.[35]

Two other traditions of theorizing about language use take inspiration from Wittgenstein's (1960: 67–74) claim that first-person attitude ascriptions should be understood as direct expressions of the states that they purport to report. For example, Wittgenstein says that uttering *I am in pain* is better understood by analogy to moaning in pain than to a description of someone's mental state. This view can now be seen as an early instance of expressivism, which is a loose collection of theories united by the idea that some or all apparently factual claims are actually something else in disguise.[36] For example, metaethical expressivism is the view that what appear to be ethical assertions are actually better understood in some other way – as expressions of emotion (Ayer, 1936; Stevenson, 1937), as prescriptions (Hare, 1952), or as expressions of motivational states (Blackburn, 1998; Charlow, 2015; Gibbard, 2003).[37] Expressivisms have also been developed to make sense of epistemic vocabulary (Yalcin, 2007, 2011, 2012), ontological claims (Carnap, 1950; Flocke, 2018), and, following Wittgenstein, first-person ascriptions (Austin, 1946; Lawlor, 2013; Wisdom, 1952). In the extreme, global expressivists extend nonfactualism to all purportedly factual statements (Price, 2013).

A second tradition that draws on Wittgenstein's ideas about self-expression takes the expression of mental states to be the fundamental concept in a theory of speech acts. To perform a speech act, on this view, is just to express a state of mind, and speech acts of different kinds express different kinds of mental states.[38] Expression theorists disagree about how

[34] The notion of warranted assertibility is originally due to Dewey (1941).

[35] For a summary, see Pagin (2016: §6.2).

[36] Another source of expressivism is the view, which can be traced back to Wittgenstein (1922: §§4.003, 6.53–54) via the logical empiricists (e.g. Ayer, 1936; Carnap, 1931, 1950), that many normative and philosophical claims lack cognitive content.

[37] For a history of metaethical expressivism, see Schroeder (2010).

[38] See, e.g., Bar-On (2004, 2013), Davis (2003), Devitt (2006), Green (2007), Pagin (2011), Rosenthal (1986), Turri (2011). On the connection to Wittgenstein, see Green (2001: 18) and especially Bar-On (2004).

containing it across contexts – e.g. to the propositions asserted by typical uses of declaratives.

T2 The meanings of sentences – which are compositional functions of the meanings of their parts – are what competent speakers understand.

T3 Semantic theories are tested by their fidelity to the quick, intuitive, and generally reliable judgments made by competent speakers about the illocutionary contents of uses of sentences.

Although T1–T3 seem individually plausible, their conjunction has been under stress since the revolt in the 1970s against descriptive analyses of names, indexicals, and natural kind terms. Since then, their semantic contents have widely been taken to be the individuals or kinds they designate. These are what the terms contribute to the compositionally determined contents of all sentential clauses in which they occur, including those governed by modal operators (e.g. *necessarily*, *possibly*, and the like). Still, there seems to be more to understanding names (*Hesperus*, *Phosphorus*) and many natural kind terms, (e.g. *water*, H_2O) than simply being able to use them to designate their semantic contents.

In addition, there are widespread presuppositions that those who understand them expect their audience to share – e.g. about the visibility of the referents of *Hesperus* and *Phosphorus* in the *evening* vs. the *morning*, about the potability of instances of the kind designated by *water*, its necessity for life and its presence in lakes and rivers, and about the fact that H_2O designates a chemical compound. These widely shared presuppositions are typically taken by ordinary speakers to be necessary conditions for *understanding the terms.* Since speakers and hearers are presumed to understand the words in their linguistic exchange, one who understands a term T expects normal uses of it to commit one to believing that T's referent satisfies widely presupposed conditions. Since this is understood without being made explicit, speakers will routinely leave important parts of what they assert unsaid. In this way, information that's not part of semantic content becomes part of normal, efficient, communication.

Because of this, our pretheoretic conception of *meaning* incorporates both elements of what is ordinarily called *understanding* and what theorists call *semantic content*. One of the philosophical tasks of the twenty-first century is to precisify these concepts and prise them apart. If, as seems undeniable, asserted content arises from *semantic contents* plus contents of widespread presuppositions associated with *understanding*, then a robust distinction between *semantic content* and *illocutionary content* will be needed in which the two are not as closely correlated as they have often been thought to be.

The perceived gap between the two has been growing for some time. As semantic contents have come to be seen as increasingly austere, illocutionary contents of uses of even unambiguous, nonindexical sentences have come to be seen as varying from one context to another. This, it has

been argued, can be so only if contextual information, extracted by pragmatic processes, routinely combines with semantically encoded information to produce asserted propositions other than, and not derivable from, the semantic contents of the sentences uttered (see Soames, 2002: ch. 3).

Since theses T1–T3 link meaning to reliably tracked assertive content, the intermingling of semantic and pragmatic information in such content raises questions about how to separate the two in testing empirical theories purporting to identify sentence meanings. Ordinary competent speakers cannot tell us what parts of the illocutionary contents of utterances reflect linguistic meaning or semantic content versus what parts are due to contextual factors. Speakers can, of course, tell us what *they would mean*, or take others to mean, by utterances of sentences in specific situations. But in so doing they merely tell us what they would there intend to use a sentence to say (assert), or take others to so intend. Although this ability to track illocutionary content is crucial, there is no comparable ability to identify which aspects of that content are due, in one way or another, to linguistic meaning and which arise from, and vary with, context. This is theoretical matter about which speakers don't need to have reliable views.

What then is the meaning of a sentence (or other expression)? There is, I suspect, no univocal answer. Instead, there are two poles of broadly semantic investigation.

The first identifies conditions to be satisfied for speaker-hearers to count as understanding a sentence (or expression) in the way needed for normal, efficient use of it in communication. The second identifies linguistically encoded information, thought of as an invariant contributing factor to illocutionary contents across contexts.

One might hope that the semantic content of a sentence, relative to a context C, was always a constituent of the illocutionary content of a use of it in C, but this seems not to be so (Soames, 2005a, 2005c, 2009a). How, in light of this, should we proceed? One approach, advocated in Sperber and Wilson (1986), arises from a speculative psychological theory according to which meaning or semantic content is contextually invariant information that is automatically decoded and pragmatically enriched by contextually sensitive unconscious inference to produce illocutionary content. The second answer, advanced in Soames (2008a), is that semantic content is a kind of *least common denominator*, abstracted by rational reconstruction. It is information associated with a sentence that must be mastered by any rational agent, in some way or other, over and above the general ability to reason efficiently, in order to track illocutionary content. How this mastery is psychologically realized may vary without foreseeable limit (see Soames, 2018b: §4.2).

In what follows, I will sketch three tasks for twenty-first-century philosophy of language: (i) elaborating an improved conception of what propositions are and how they are related to sentence meanings, (ii) developing

a conception of semantics incorporating the complex relationship between understanding sentences, using them with their correct semantic contents, and extracting illocutionary contents of such uses (which sometimes include and sometimes don't include their semantic contents), and (iii) sketching the type of pragmatic theory we must develop if we are to systematically assign illocutionary contents to uses of sentences.

4.3 Taking Propositions Seriously

Propositions are objects of attitudes, primary bearers of truth conditions, contents of some cognitive and perceptual states, and semantic contents (at contexts) of sentences. Whether or not they are, as they are often said to be, the meanings of some sentences is, as we shall see, less obvious. They clearly are not sets of truth-supporting circumstances or functions from circumstances to truth-values. Elsewhere, I have argued that the coarse-grainedness problem for these truth-theoretic conceptions of propositions cannot be solved by substituting finer-grained truth-supporting circumstances for metaphysically possible world-states (Soames, 1987, 2008b). Nor can it be solved by diagonally determined sets of world-states (or functions from such to truth-values) resulting from the pragmatic account of assertion in Stalnaker (1978), or the two-dimensional semantic account in Chalmers (1996).[1]

In addition, these truth-theoretic entities, unlike genuine propositions, need to be *interpreted* by theorists in order to function as bearers of truth conditions. A possible worlds semanticist who associates sentence S with $\{w_1, w_2, w_3\}$ may tell you that the set represents the actual world-state, @, as being in it. Given this ex-cathedra pronouncement, you can assign truth conditions to S. But the theorist could just as easily tell you that the set represents @ as *not* being in it. The point isn't that one oracular statement is better than the other; no such statement should be needed. Propositions, as primary bearers of truth, shouldn't require interpretation.

A similar point can be made about a theory's assignment to S of a *function* from world-states to truth-values. For the assignment to help, we must already know what truth and falsity are, and what the mapping is supposed to accomplish (see Soames, 2015: 10–12). Truth is the property a proposition p has when the world is as p represents it, and which, when predicated of p, gives us a claim one is warranted in accepting (or doubting) iff one is warranted in accepting (or doubting) p. Because propositions are conceptually prior to truth, truth cannot be something from which propositions are derived. If, as I believe, world-states are properties of making complete world-stories (consisting of propositions) true, the same can be said about them. Both presuppose conceptually prior

[1] Soames (2006) critiques Stalnaker's approach; Soames (2005b) critiques Chalmers.

propositions and so are not building blocks from which propositions are constructed.

This conclusion has been obscured because "is true at" is typically left undefined. Everyone recognizes that ⌜'S' is true at w⌝ doesn't mean ⌜'S' would be true, if w were actual⌝ – since if it did, we could not correctly say that *the sentence "The earth moves" is true at w provided that the earth moves at w, no matter what, if anything, the sentence means at w, or whether it even exists at w.*[2] So, what does "is true at" mean? Typically we are told to interpret ⌜'S' is true at w iff at w, so-and-so⌝ as ⌜'S', as used by us here and now, is true at w iff at w, so-and-so⌝.[3] But what is this alleged bearer of truth, a sentence *as used by us here and now*? It can't be the sentence itself, since if it were, we wouldn't need the qualifying phrase. It is tempting to transform talk of *a sentence as used by us here and now* into talk of *our use of the sentence here and now*, which, I will shortly argue, is a cognitive act-type with the representational content we use the sentence to assert.[4]

First, notice the obvious – that for S to be true at w is for *S* to express a proposition that would be true if w were actual. To say this is, of course, to presuppose antecedent conceptions of *the proposition S expresses* and *the monadic notion of truth* applying to it (Soames, 2010c). Next, consider the pretheoretic triviality ⌜*if 'S' means, or expresses, the proposition that the earth moves, then necessarily the proposition expressed by 'S' is true iff the earth moves*⌝. This plus the theorem ⌜*'S' is true at w iff at w, the earth moves*⌝ guarantees that S means *something necessarily equivalent to the proposition that the earth moves.* Although this does not *fully* specify S's meaning, it constrains it. But to get this far, we have had to take antecedent notions of truth and propositions for granted. If we were not willing to do this, we would not be able to extract any information about meaning from intensional truth theories. To provide real *semantic* theories, we must map sentences to real propositions the truth conditions of which are derived from their representational properties.

This is not an argument for Frege–Russell propositions. Although their individuation conditions are better suited to accommodating the attitudes, they are still too coarse-grained. Worse, the n-tuples of objects, properties, or senses are merely models. Because those structures do not, without interpretation by us, represent anything as being any way, they are neither meanings nor primary bearers of truth (Soames, 2010a). Hence, we need a new conception of propositions.

[2] 'S' is here a metalinguistic variable over sentences. Sentences may be abstract objects of some kind, provided their existence, and the meanings they happen to bear, are, as ordinary talk suggests, contingent matters.

[3] 'S' is again a metalinguistic variable. The square quotes are called "corner" or "Quine" quotes. Here is an example. If 'P' and 'Q' are variables over sentences, the sentence *For all sentences P and Q ⌜P & Q⌝ is a sentence* says *For all sentences P and Q, the expression that consists of P, followed by '&,' followed by Q is a sentence.* Similarly, *For all sentences P, ⌜'P' is true iff P⌝* says *For all sentences P, the expression that consists of the left hand quote mark, followed by P, followed by the right hand quote mark, followed by 'is true iff,' followed by P is true.*

[4] See also Soames (2016a, and ch. 2 of 2018a) for discussion of a section of the *Tractatus* where Wittgenstein narrowly misses a promising conception of propositions based on this transformation.

The needed conception inverts the Frege–Russell idea that the intentionality of propositions is explanatorily *prior* to that of agents. According to that idea, agents who entertain propositions represent things as bearing certain properties *because* the propositions entertained do. But, since there is no explanation of how structured propositions represent, or what our entertaining them amounts to, it is mysterious how they represent, what cognizing them requires, and how *our* cognizing them results in *our* representing things as bearing properties. We can reduce the mystery by starting with the obvious fact that *agents* represent things as being various ways when they think of them as being those ways. We then ask, *What kind of entity P and what relation R can play the roles of propositions and entertaining in our theories by guaranteeing that agents who bear R to something of kind P represent things as being some way?* If we find such P and R, we can *explain* the intentionality of things of kind P by *deriving* it from the intentionality of those who bear R to them.

Looking at things in this way, we arrive at the hypothesis that *propositions are repeatable, purely representational, cognitive act-types or operations*; *to entertain one is not to cognize it but to perform it.* When I perceive or think of the earth as moving, I *predicate* the property *moving* of it, which is to *represent it as moving*. To say of a proposition p that it represents *such-and-such as being so-and so* is to say that any conceivable agent who performs (i.e. entertains) p thereby represents *such-and-such* as *being so-and so.* Given this, we say that p is true at w iff things would be as p represents them, if w were actual. On this picture, no one has to entertain p (at w), nor need p exist (at w), in order for p to be true (at w).

To predicate a property B (e.g. *being blue*) of o is to perceptually or cognitively represent o as B – to see, visualize, imagine, or cognize o as B in some way. These are different *ways* of predicating, *not different doings in addition to predicating*. Seeing o as B isn't predicating B of o *plus doing something else* (the doing of which is no part of the predicating). There is no bare event of predicating B of o that isn't identical with an event of seeing o as B, visualizing o as B, etc.

To predicate *being blue* of o is not to *commit* oneself to o's being blue. We often predicate a property of something without committing ourselves in this way, as when we *imagine* o to be blue, visualize o as blue, or merely hear o described as blue. Predication isn't inherently committing, even though some instances of it – e.g. those involved in judging or believing – are either themselves committing, or essential to more encompassing acts that are. In this way, the act-type *predicating P of o* is like the act-type *traveling to work*, which, though not inherently effortful, has instances, like biking to work, that are. Similarly, one who judges or believes that o is P predicates *being P* of o in a committal manner, affirming the representational act. These truth-normed attitudes contrast with attitudes like *doubting*, which are not. The things doubted may, of course, be true or false, just as the things believed may be. Since what is believed by x may be

so impose identical truth conditions on the world, while imposing different conditions on minds that entertain them.

(1) a. Russell tried to prove (the proposition) that arithmetic is reducible to logic.
b. Russell tried to prove logicism.

(2) a. Mary believes that Russell tried to prove (the proposition) that arithmetic is reducible to logic.
b. Mary believes that Russell tried to prove logicism.

Let "logicism" be a Millian name for the proposition L, *that arithmetic is reducible to logic*, designated by the *that*-clause. Although L is what the two terms contribute to the representational contents of (1), (1a) and (1b) express different propositions, and (2a) and (2b) can differ in truth-value. If Mary picked up the name "logicism" by hearing it used to designate some thesis in the philosophy of mathematics Russell tried to prove, (2b) may be true, even if she doesn't know his views about arithmetic, and (2a) is false. Although propositions (1a,b) each require one who entertains it to predicate *trying to prove* of Russell and L, (1a) also requires one to identify L by entertaining it. Thus *to entertain, accept, or believe proposition (1a) is to entertain, accept, or believe, (1b), but not conversely*. From this, the different truth conditions of (2a,b) follow. Because propositions are cognitive act-types, they can place different constraints on how one cognizes an item, even when they predicate the same property of the same things.

(3) a. I am in danger. *Said by SS*
b. SS is in danger.

(4) a. I believe that I am in danger. *Said by SS*
b. SS believes that SS is in danger.

Because propositions (3a) and (3b) are representationally identical but cognitively distinct, (4a) can be false even if (4b) is true. This happens when I see SS in a mirror at an odd angle and believe him to be in danger, without believing I am. Here, we distinguish predicating *being in danger* of SS cognized *in the first-person way* from predicating it of SS, however cognized. Since the same property is predicated of the same agent, the acts are cognitively distinct but representationally identical. For me to perform the first is always for me to perform the second, but not conversely. So when I realize – *I am in danger* – I come to believe a proposition I hadn't previously believed, even though my believing it is just my coming to believe, in a new way, something I already believed.

As (5) illustrates, one can report first-person beliefs of others without being able to entertain the propositions one reports them as believing.

(5) (Every x: Fx) *x believes that x is G*

Suppose a use of (5) asserts that the propositional function expressed by the matrix clause *is true of every x who is F.* It is true iff each such x believes a proposition that predicates *being G* of x, while predicating nothing of anything else. If it is contextually assumed that the reported believers identify G's predication target in the first-person way, *de se* attitudes are ascribed; if not, *de re* attitudes are ascribed.[7]

(6) a. The meeting starts now! *Said at t*
b. I only just realized that the meeting starts now! *Said at t*

Just as for each person p there is a first-person way of cognizing p no one else can use to cognize p, so, for each time t there is a "present-tense" way of cognizing t *at t* that can't be used at other times to cognize t. Suppose I want to attend a meeting starting at t – noon on July 1st. Although I remind myself of this that morning, I lose track of time later on. So, when I hear the clock strike noon, I utter (6a), and change my behavior. Coming to believe of t *in the present-tense way* that the meeting starts then motivates me to hurry off. Had I not believed this, I wouldn't have done so, even though I would have continued to believe, of t, that the meeting starts then. As before, I believe something new by coming to believe something old in a new way; (6b) is true because the proposition to which I have just come to bear the *realizing* relation requires cognizing t *in the present-tense way*.

Linguistic cognition is another source of representational identity but cognitive distinctness. One who understands sentence (7) uses *is* to stand for identity, *water* to designate a natural kind k, and the name H_2O (which is related to, but semantically distinct from, the phrase *the substance molecules of which consist of two hydrogen and one oxygen atom*) to designate k.

(7) Water is H_2O

Since *using (7) to predicate identity of the pair* is a purely representational cognitive act, it counts as a proposition p* that is representationally identical to, but cognitively distinct from, the cognitively undemanding proposition p that predicates identity of the pair without placing conditions on what expressions, if any, are used to identify the identity relation, or its predication targets.

This example may seem problematic since, given the widely accepted semantic fact that *water* and H_2O have the same content, one takes the compositionally determined semantic content of (7) to be the triviality *that k = k*. Surely, that is not what people intend to assert and communicate when they use (7). Still, they do assert the linguistically specific proposition p* of the previous paragraph, which is distinct from the semantic content of (7), i.e. p.

[7] Chapters 2 and 7 of Soames (2015) explain how we succeed in identifying and communicating various types of propositions we aren't in a position to entertain.

How does this help? First, unlike its representationally identical cousin p, p* is knowable only aposteriori, since (despite making no claims about expressions) it can be known only by knowing that *water* and H_2O are codesignative. More importantly, communicative uses of (7) typically occur in contexts in which speaker-hearers mutually presuppose that they *understand* the terms. In such cases, a speaker A asserts not only the bare proposition predicating identity of k and k, but also the corresponding proposition entertainable only by identifying k via the two terms. Although this proposition merely represents k as being identical with k, A's audience, B, extracts more information. Presupposing that A *understands* the terms, B reasons that A knows that she will be taken to be committed to the claim that k is both *a chemical compound involving hydrogen and oxygen* and *one instances of which are clear and potable, necessary for life, and found in lakes and rivers.* Realizing that A expects him to so reason, B correctly concludes that A *asserted* this informative, descriptively enriched proposition.[8]

So far, we have identified four significant ways of identifying predication targets – identifying a propositional constituent of a complex proposition by *entertaining* it, identifying oneself *in the first-person way*, identifying a time by *cognizing it in the present-tense way*, and identifying something by *cognizing it linguistically*. Adding these sub acts, called *Millian modes of presentation*, to a more abstract propositional act-type places constraints on *how* predication targets are identified, without changing representational content. The cognitively distinct but representationally identical propositions thereby generated expand solution spaces for traditional problems of hyperintensionality. In fact, there are many more Millian modes, including vast families constraining how objects and properties are *perceptually* identified.[9]

4.4 Semantics, Pragmatics, and Understanding

The conception of propositions sketched above highlights the distinction between semantic and illocutionary content. The meaning of the first-person singular pronoun is given by the rule: *an agent x who uses it refers (directly) to x*. Since the semantic content of such a use is just x, the semantic

[8] How, then, can A assert and communicate something true (and nothing false) by assertively uttering a sentence (7N), understood as the necessitation of sentence (7): *In fact, water is necessarily* H_2O? The answer hinges on what *understanding* requires. It requires knowing that most agents who use the terms take, and expect others to take, *water* to stand for a kind instances of which fill the lakes and rivers, etc. and H_2O to stand for a chemical compound involving hydrogen and oxygen. Presupposing that both parties understand the terms, A and B add descriptive content to A's utterance of (7). Since taking the terms to refer to kinds that actually have those properties does not tell us about what properties they have at merely possible world-states, A and B do not descriptively enrich the occurrences of the names under the modal operator when evaluating assertive utterances of (7N).

[9] See Soames (2015: chs. 2–8) for discussion of some further Millian modes and their relevance to various philosophical problems involving hyperintensionality.

content of my use of (3a) has the same as the semantic content of a use of (3b). First-person cognition is associated with the pronoun because I know *in the first-person way,* when using it, that I am doing so. Combining this knowledge with my knowledge of the semantic rule, I know, *in the first-person way*, that my use of (3a) predicates being in danger of me. One who understands the pronoun also knows this (about everyone's use).

My assertive use of (3a) asserts a proposition that predicates *being in danger* of me, cognized in the first-person way, and (thereby) also asserts the bare semantic content of (3a,b), which doesn't require first-person cognition. My use of (3b) asserts only the later. What about (8) and (9)?

(8) a. I believe that *I am in danger*.
b. I believe that SS is in danger.

(9) a. I don't believe that *I am in danger*.
b. I don't believe that SS is in danger.

If it is clear that I am using the italicized clause to pick out a proposition requiring the predication target of *being in danger* to be cognized in the first-person way, then my use of (8a) reports belief, while my use of (9a) reports my disbelief, in the first-personal pragmatic enrichment of the semantic content of the clause. My use of (8a) also reports my belief in the semantic content of the clause, whereas my use of (9a) may not. Sometimes, the semantic content of the sentence I utter is not asserted.

The point generalizes. Consider again a use of (6b) to say something true, and nothing false, even though its unasserted semantic content, shared with (6b*), is false. As before, what is asserted is a pragmatic enrichment of the content.

(6) b. I only just realized that the meeting starts now! *Said at t*
b*. I only just realized that the meeting starts at t!

Similar points apply when predication targets are identified perceptually or by specific linguistic means.

(7) a. Water is H_2O
b. Water is water

Earlier, I noted that although the semantic contents of the two terms are the same kind k, the conditions for understanding the terms explain why typical uses of (7a) assert more than *that k = k.* However, even agents who do not fully understand the terms can use them to designate k, if they have picked them up from competent users intending to preserve reference.[10] Since understanding comes in degrees, some communicative situations involve shared presuppositions that encode more, and some less,

[10] Kripke (1980), Putnam (1975a). Although Kripke and Putnam agreed on this, Putnam also introduced the notion of commonly accepted stereotypes associated with natural kind terms, which was a precursor of the notion of understanding discussed here.

information than others. Still, even austere assertions made using (7a) will typically be more informative than those made using (7b). How about utterances backed only by the intention to use the terms to designate whatever others do. In such cases, we might truly say – *He has no idea of what water or H_2O are; he doesn't believe that water is H_2O; in fact, he believes it isn't* – without, thereby, ascribing any descriptively substantive belief to him. It is enough that he believes the nonidentity claim that requires the use of the different names for kind k, while not believing the corresponding identity claim.

Sometimes a mere difference in words, even if they are translations of one another, is enough to distinguish propositions asserted and the beliefs expressed by uses of them. When Kripke asks, of his bilingual Frenchman Pierre, who learned English by immersion, *Does he, or doesn't he, believe that London is pretty?* he is unable to answer because Pierre dissents from "London is pretty," while understanding it as well as any Englishmen, but assents to "Londres est jolie," while understanding it as well as any Frenchman. Kripke's quandary arises from the incorrect assumption that his use of the italicized clause univocally designates a single proposition. In the context of the story, Kripke's interrogative utterance is indeterminate between two questions. One, to which the answer is "No," asks whether Pierre believes the proposition that predicates *being pretty* of *London* (using the English words). The other, to which the answer is "Yes," asks whether Pierre believes the proposition that predicates *being pretty* of *London* (using the French words).[11]

Kripke next describes Peter, who wrongly takes different occurrences of "Paderewski" to be occurrences of different, but phonologically identical, names of different men. Due to his error, Peter utters (10).

(10) I don't believe *Paderewski the musician is Paderewski the statesman*; in fact I believe the negation of that proposition.

Here, Peter fails to recognize the second occurrence of "Paderewski" as a recurrence of the first. Incorporating a leading idea of Fine (2007) into the framework of cognitive propositions, we distinguish (i), the proposition that predicates identity (or nonidentity) of Paderewski and Paderewski, cognizing each via the name Paderewski from (ii), the proposition that differs from (i) in also recognizing that recurrence. Anyone who entertains or believes (ii) thereby believes (i), but not conversely.

As shown in Salmon (2012), it is clear that *recognition of recurrence* is a key process linking ways of cognizing an object of thought or perception at a given moment to ways of cognizing it earlier, and to ways in which information about it is stored and accessed in memory. Such recognition can cross modes of cognition and perception. When the recognition involves language, it can involve recurring Millian modes of presentation associated

[11] Kripke (1979) and Soames (2015: ch. 4).

Since modern decision and game theory provide mathematical models of rational belief and action, we need to figure out how to extend existing multi-person signaling games to incorporate meaningful linguistic signals into games in which speaker-hearers maximize benefits by exchanging information that advances their communicative goals. The aim is to spell out how ideally rational speaker-hearers converge on information that is asserted and conveyed by actual speaker-hearers, using semantic and pragmatic information contextually available to them. Although such a theory will not translate point by point into a theory of psychological processing, it will constrain such a theory and help explain how whatever those processes turn out to be generate the rational, efficient, and cooperative exchange of information that characterizes much ordinary linguistic communication. This, I believe, is the most important twenty-first-century philosophical task for advancing the sciences of language and information.

Part II

Some Foundational Issues

5

Philosophy of Language, Ontology, and Logic

Chris Fox

5.1 Introduction

This chapter considers the various philosophical and methodological questions that arise in the formal analysis of the semantics of language. Formal semantics aims to provide a systematic account of the meaning of language in a rigorous formal framework. It is typically a rule-based analysis of the relevant data and intuitions. This is a broad and complex problem, given the nuances in the use and meaning of everyday language. In practice, this means that a given analysis will confine itself to some specific aspect of meaning, an appropriate sample of the language, and some constrained context of use.

We can conceive of "meaning" here as being concerned with *judgments* about language. Much work in formal semantics confines itself to judgments relating to the conditions under which an assertion in natural language is judged to be *true*. But there are other aspects of meaning besides truth. For example, we might be concerned with whether two expressions co-refer, or whether one expression can be considered to be a *question* and another expression, a (putative) *answer* to that question. Formal semantics may stray into areas of pragmatics such as *presuppositions* (Beaver, 1996), *topic* and *focus* (Lee, Kiefer, and Krifka, 2017). In such cases, formal semantics is concerned with judgments about properties and relations relevant to our understanding of language.

Formal semantics is also concerned with developing systems of rules that are more general than some specific ad hoc interpretations of individual specific utterances in a given language. Ideally the analysis should be robust when it comes to changes in words and phrases in paradigm examples and related sentences. This can be achieved by adopting a *compositional* approach (Szabó, 2017). This assumes that the grammar of the language can be expressed by syntactic rules. A rule of semantic analysis can then be associated with each syntactic rule. The semantic rule