

Meaning, Expression, and Thought

WAYNE A. DAVIS

Georgetown University



CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

<http://www.cambridge.org>

© Wayne A. Davis 2003

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2003

Printed in the United Kingdom at the University Press, Cambridge

Typeface Bembo 10.5/13 pt. *System* L^AT_EX 2_ε [TB]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication data available

ISBN 0 521 55513 2 hardback

Contents

<i>Preface</i>	<i>page xv</i>
1 Introduction	1
1.1 Meaning as the Expression of Thought	1
1.2 The Gricean Program	7
1.3 Systematization	10
1.4 Analyses	12
 Part One Semantic Acts and Intentions	
2 Speaker Meaning	19
2.1 Speaker, Word, and Evidential Senses	19
2.2 Cogitative versus Cognitive Speaker Meaning	25
2.3 Meaning, Implication, and Expression	29
2.4 Cogitative Speaker Meaning (Exclusive)	31
2.5 Nonideational Meaning	40
2.6 The Senses of Meaning	42
3 Expression	43
3.1 Speaker, Word, and Evidential Senses	43
3.2 Indication	44
3.3 Intention	47
3.4 Simulation	54
3.5 Occurrence	56
3.6 General Definition	58
4 Alternative Analyses	63
4.1 Production of Belief	64
4.2 Recognition of Intention	70

4.3	Higher-Order Intentions	71
4.4	Commitment and Truth Conditions	75
4.5	Cogitative Speaker Meaning	79
5	Communication	85
5.1	The Gricean Analysis	86
5.2	Communicating <i>with</i>	88
5.3	Telling and Informing	92
5.4	Communicating <i>to</i>	93
5.5	The Transmission Model	96
6	Reference	100
6.1	Speaker Reference	101
6.2	The Opaque-Transparent Distinction	104
6.3	Intentionality	116
6.4	Quantifying In	118

Part Two Languages and Semantic Acts

7	Languages	125
7.1	Language Models	126
7.2	Systems of Modes of Expression	129
7.3	Word Meaning and Expression	131
7.4	Linguistic Variation	134
7.5	Language Rules	137
7.6	Rules for Ideo-Reflexive Reference	141
7.7	Word Reference	151
7.8	Using a Language	152
7.9	Applied Word Meaning	158
8	Basic Word Meaning	162
8.1	Associational Analyses	164
8.2	The Gricean Analysis	166
8.3	The Truth Conditional Analysis	170
8.4	The Sentential Primacy Thesis	174
8.5	The Basic Neo-Gricean Analysis	189
8.6	The Use-Interpretation Equivalences	198
8.7	The Expression-Communication Equivalence	201
8.8	The Expression-Indication Equivalence	202
9	Conventions	204
9.1	Definition	204
9.2	Social Utility	207

9.3	Self-Perpetuation	207
9.4	Arbitrariness	212
9.5	Regularity	216
9.6	Correct Usage	219
9.7	Lewis's Equilibrium Condition	225
9.8	Mutual Knowledge	226
10	Compositional Word Meaning	229
10.1	The Productivity Problem	230
10.2	The Potential Meaning Analysis	231
10.3	The Recursive Neo-Gricean Analysis	233
10.4	Implicature Conventions	241
10.5	Nonspecific Conventions	244
10.6	Objections to Compositionality	247
10.7	The Grammaticality Restriction	257
10.8	Anomalous Sentences	260
11	Living Languages	265
11.1	Linguistic Relativity	265
11.2	Convention Dependence	267
11.3	Linguistic Lineages	272
11.4	Boundaries	276
11.5	Language Death	280
11.6	Natural and Artificial Languages	282
11.7	Idiolects	286
11.8	Conventions of Truthfulness	288
11.9	The Kinds of Word Meaning	292

***Part Three* Thoughts and Ideas**

12	Thought	295
12.1	The Cogitative Sense of Thought	296
12.2	Belief versus Occurrent Thought	301
12.3	Thinking as the Occurrence of Thoughts	312
12.4	Thinking of Objects	317
12.5	Occurrent Belief	321
12.6	The First Law of Occurrence	326
13	Sentences, Propositions, and Thoughts	331
13.1	Thoughts versus Sentences	332
13.2	Thinking Not a Relation to Sentences	337
13.3	Propositions as Thoughts	342
13.4	The Proposition that p	345

13.5	Situations and Possible Worlds	351
13.6	Semantic Theorems and the Mates Objection	353
14	The Constituency Thesis	368
14.1	Ideas as Thought-Parts	369
14.2	The Constituency Thesis for Thoughts	377
14.3	Subpropositional Constituents	393
14.4	The General Constituency Thesis	399
14.5	Mereological versus Logical Containment	404
15	Ideas or Concepts	407
15.1	Formal Definition	407
15.2	Atomic Ideas	413
15.3	The Conception of Concepts	416
15.4	Content, Object, and Representation	419
15.5	Extension or Reference	422
15.6	The Content of a Thought	425
16	The Possession of Concepts	428
16.1	Possessing Concepts	428
16.2	Nominalist Theories	432
16.3	Recognition Theory	433
16.4	Information Semantics	436
16.5	Memory and Knowledge Theories	438
16.6	Inferentialist Theories	441
16.7	Understanding and Mastering	442
17	The Acquisition of Concepts	447
17.1	Acquiring Concepts	447
17.2	Concept Learning and Innate Ideas	451
17.3	Abstraction as a Basic Psychophysical Process	455
18	The Association of Ideas	461
18.1	Association	462
18.2	Associationist Networks	470
18.3	Association versus Constituency	473
18.4	Connectionist Models	476
19	Objects, Images, and Conceptions	481
19.1	Ideas versus Objects of Thought	482
19.2	Ideas versus Images	488
19.3	Thinking versus Inner Speech	495
19.4	Concepts versus Conceptions	500

19.5	Prototype Structures	513
19.6	What Is Left	517
20	The Language of Thought Hypothesis	519
20.1	Natural Language Theories	521
20.2	Mental Language Theories	524
20.3	Hidden Language Theories	533
20.4	Uninterpreted Language Theories	535
20.5	Computational Theories: Content	542
20.6	Computational Theories: Process	547
 Part Four Ideational Theories of Meaning		
21	Objections to Ideational Theories	553
21.1	The Non-Entity Objection	555
21.2	The Naming Objection	562
21.3	The Sensationist Objection	567
21.4	The Privacy Objection	571
21.5	The Synonymy Objection	572
21.6	The Identity Objection	574
22	Priority Objections	579
22.1	The Reflection-or-Ignorance Objection	580
22.2	The Regress Objection	586
22.3	The Definitional Circularity Objection	588
22.4	The Metalinguistic Circularity Objection	594
23	Incompleteness Objections	599
23.1	Undefined Terms	599
23.2	Defining Thought	601
23.3	Referential Semantics	606
<i>References</i>		608
<i>Index</i>		645

1

Introduction

One of the most venerable doctrines in the history of philosophy, linguistics, and psychology is the thesis that words are conventional signs of mental states, principally thoughts and ideas, and that meaning consists in their expression. This *expression theory of meaning*, as I call it, is firmly entrenched in our commonsense understanding of the world. But familiarity has bred complacency as well as contempt. Development of the doctrine was limited through the nineteenth century, and the twentieth century brought denunciation of the expression theory from generations of scholars. Behavioristic theories of meaning have now faded from view. But referential theories still dominate the field, despite insurmountable problems. This work is an extended effort to clarify, deepen, and defend the expression theory, thereby systematizing what is known about meaning and expression. The best way to do this, I believe, is to carry out the Gricean program, explaining what it is for words to have meaning in terms of speaker meaning and what it is for a speaker to mean something in terms of intention. To succeed in this project, we must develop the theory of thought as a fundamental mental phenomenon distinct from belief and desire, identifying ideas with parts of thoughts. This work, then, is a philosophical treatise on the foundations of semantics.

§1.1 MEANING AS THE EXPRESSION OF THOUGHT

Like many other central philosophical and scientific ideas, the expression theory was first set out by Plato (427–347 B.C.) and Aristotle (384–322 B.C.).

Spoken words are the symbols of mental experience and written words are the symbols of spoken words. Just as all men have not the same writing, so all men

have not the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as are those things of which our experiences are the images. . . . As there are in the mind thoughts which do not involve truth or falsity, and also those which must be either true or false, so it is in speech. For truth and falsity imply combination and separation. . . . A sentence is a significant portion of speech, some parts of which have an independent meaning, that is to say, as an utterance, though not as the expression of any positive judgement. . . . Every sentence has meaning, not as being the natural means by which a physical faculty is realized, but, as we have said, by convention. Yet every sentence is not a proposition; only such are propositions as have in them either truth or falsity. Thus a prayer is a sentence, but is neither true nor false. (Aristotle, *De Interpretatione*: §§1–4)

Aristotle became “the Philosopher” during the medieval period, and his views were kept alive by Augustine (A.D. 354–430), Boethius (ca. 475–525), Avicenna (ca. 929–1037), and Ockham (ca. 1280–1349).

[A] sign is a thing which, over and above the impression it makes on the senses, causes something else to come into the mind as a consequence of itself. . . . Natural signs are those which, apart from any intention or desire of using them as signs, do yet lead to the knowledge of something else, as, for example, smoke when it indicates fire. . . . Conventional signs, on the other hand, are those which living beings mutually exchange for the purpose of showing, as well as they can, the feelings of their minds, or their perceptions, or their thoughts. Nor is there any reason for giving a sign except the desire of drawing forth and conveying into another’s mind what the giver of the sign has in his own mind. (Augustine, *On Christian Doctrine*: Chapters 2.1 and 2.2)

I say vocal words are signs subordinated to mental concepts or contents. By this I do not mean that if the word ‘sign’ is taken in its proper meaning, spoken words are properly and primarily signs of mental concepts; I rather mean that words are applied in order to signify the very same things which are signified by mental concepts. Hence the concept signifies something primarily and naturally, whilst the word signifies the same thing secondarily. . . . This is what is meant by the Philosopher when he says ‘Words are signs of the impressions in the soul’. Boethius also has the same in mind when he says that words signify concepts. . . . A concept or mental impression signifies naturally whatever it does signify; a spoken or written term, on the other hand, does not signify anything except by free convention. (Ockham, *Summa Logicae* I: §1)

Three centuries later, the modern period of philosophy began with similar statements by Descartes in the *Meditations* (1641) and *Replies to Objections* (1641), Hobbes in the *Logic* (1655), and Arnauld in the *Port Royal Grammar* (1660) and *Port Royal Logic* (1662). Descartes introduced the term

“idea” in this context, which became firmly entrenched through the enormous influence of Locke’s *An Essay Concerning Human Understanding* (1690).

Man, though he have great variety of thoughts, and such from which others as well as himself might receive profit and delight; yet they are all within his own breast, invisible and hidden from others, nor can of themselves be made to appear. The comfort and advantage of society not being to be had without communication of thoughts, it was necessary that man should find out some external sensible signs, whereof those invisible ideas, which his thoughts are made up of, might be made known to others. For this purpose nothing was so fit, either for plenty or quickness, as those articulate sounds, which with so much ease and variety he found himself able to make. Thus we may conceive how *words*, which were by nature so well adapted to that purpose, came to be made use of by men as the signs of their ideas; not by any natural connexion that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a sound is made arbitrarily the mark of such an idea. The use, then, of words, is to be sensible marks of ideas; and the ideas they stand for are their proper and immediate signification. (Locke 1690: §3.2.1)

Words, by long and familiar use, as has been said, come to excite in men certain ideas so constantly and readily, that they are apt to suppose a natural connexion between them. But . . . every man has so inviolable a liberty to make words stand for what ideas he pleases, that no one hath the power to make others have the same ideas in their minds that he has, when they use the same words that he does. And therefore the great Augustus himself, in the possession of that power which ruled the world, acknowledged he could not make a new Latin word: which was as much as to say, that he could not arbitrarily appoint what idea any sound should be a sign of, in the mouths and common language of his subjects. It is true, common use, by a tacit consent, appropriates certain sounds to certain ideas in all languages, which so far limits the signification of that sound, that unless a man applies it to the same idea, he does not speak properly. . . . (Locke 1690: §3.2.4)

Locke’s views on the signification of ideas were repeated with very little variation or amplification for the next three centuries, principally by those who thought that they had found in the principles of association formulated by both Locke and Aristotle the fundamental laws of all mental phenomena.¹ Even those who rejected associationism accepted

1 See Condillac 1746; Hartley 1749: Chapter 1.3; J. Mill 1829, Chapter 4; Bentham 1816, 1843; Bain 1855: §67–8; and Titchener 1914: 214.

a basically Lockean view of language.² One of the few new ideas was the late nineteenth-century distinction between sense and reference, which led to Frege's thesis that the sense of a sentence is a thought, the sense of a predicate a concept.³ Frege's identification of senses with thoughts is subject to objection, but its ability to account for the distinction between sense and reference is a major strength. J. S. Mill's similar but older distinction between connotation and denotation led to a significant competitor to the ideational theory: the view that the meaning of a word is its connotation, the property or set of properties it expresses.⁴

As this brief history indicates, the expression theory underwent little development between the third century B.C. and the first half of the twentieth century. Critics have been more inventive, developing a multitude of objections. Much of the classical criticism has centered around the notion of an idea. The expression theory is primarily, though not exclusively, an ideational theory. Ideational theorists tended to use the term "idea" inconsistently, and many definitions picked out classes of entities that did not correlate well with meanings. The term "idea" became enmeshed in wildly implausible theories such as idealism, associationism, and sensationalism. The philosophical pendulum swung hard in the opposite direction, producing the verification theory of the Vienna Circle, according to which meaning consists in verification conditions. Bertrand Russell and Wittgenstein in his early writings advocated the referential theory, identifying meaning with reference. The later Wittgensteinian dictum that "meaning is use" resonated with the behaviorist movement that was sweeping philosophy as well as psychology. The evident failure of behaviorist analyses, which was as great for semantic terms as for psychological terms, led Quine and his followers to reject as meaningless all talk of meaning as opposed to reference. The rapid progress of modern formal logic rewarded work on reference, and underscored its relative tractability.

2 See Leibniz 1709: 3.1–3.2; Reid 1764: §4.2, §5.3, §6.24; Reid 1785: 394, 477, 496–7; Brentano 1874: 198; James 1890: 427; Frege 1892a: 43; 1892b; 1918: 4–5; Husserl 1900: Investigation I; Meinong 1910: xiv–xv, 24–5, 34–6.

3 Frege 1892a: 43; 1892b; 1918: 4–5. See also Husserl 1900: Investigation I, Chapter 1, §12; Kneale & Kneale 1962: 493ff.

4 J. S. Mill 1843: §1.2.5; §1.5.2; §1.5.4. According to Kneale & Kneale 1962: 318, this distinction between "comprehension" and "extension" was first introduced by Arnauld in the *Port Royal Logic*. Hamilton introduced "intension" for "comprehension." Ockham's distinction between secondary and primary signification would seem to be an early predecessor. See Loux 1974: 6–7; Freddoso 1980: 4–5; Ockham, *Summa Logicae I*. Formally, however, Ockham had no use for the abstract objects or universals that connotative terms appear to signify secondarily.

General arguments for eliminative materialism gained currency, leading some to reject mentalistic theories of language altogether. By the mid-1960s, the ideational theory of meaning was as dead as idealism in metaphysics.

I will not in this work attempt to refute skepticism about the existence of mental phenomena. I will take it for granted that people do have beliefs, desires, and thoughts. Let the skeptics be taken at their word that they do not really believe or mean what they are saying, and have not thought the matter through! Seriously, I believe that we have direct introspective evidence for the existence of beliefs, desires, and thoughts, and indirect evidence based on the ability of psychological hypotheses to explain and predict human behavior, including but not limited to verbal behavior. There is an impressive and rapidly expanding literature on the neurophysiological basis of psychological phenomena. The fact that there are no serious competitors to explanations of behavior in terms of mental states has been argued forcefully by Chomsky, Putnam, Fodor, and others, and many results from the burgeoning field of cognitive psychology demonstrate the power of the framework. The case for the predictive value of psychological hypotheses has not been made as thoroughly, so I will make one observation. The triumph of the Apollo moon missions was rightly attributed to the remarkable predictive power of physical theory, which enabled scientists to calculate in advance the exact path the capsule would take, the amount of fuel needed to return the ship to Earth, and so on. It is seldom observed that the success of the mission depended equally critically on the scientists' ability to predict the behavior of the astronauts manning the spacecraft. These predictions were based not on the laws of physics or neurophysiology, but on the known psychological states of the astronauts and the principles by which such states lead to behavior. Mission control knew, for example, that the astronauts wanted to get to the Moon and return safely, that they believed a number of specific actions were necessary to achieve that goal, that the astronauts would think of the necessary actions at the appropriate times, and that the actions would be performed at the right times as a result. The predictive power of psychology is astonishing when you think about it.

Skeptics like Churchland (1981) myopically focus on the unexplained and the unpredictable. Every advance in scientific understanding raises more questions than it answers. Churchland also makes much of the fact that psychology has advanced comparatively little in three thousand years, concluding that it is a "stagnant research paradigm." But the relative stagnation has some obvious explanations: the mind is enormously complex;

scholars did not think to study psychology scientifically until around 1850, and when they did a number of false and unwarranted dogmas – principally sensationalism and behaviorism – obstructed research for the next hundred and twenty years. We will in this work patiently untangle conceptual confusions and theoretical dogmas that impede understanding of meaning and thought even today. Despite these obstacles, today's introductory psychology and semantics texts represent a vast improvement on *De Anima* and *De Interpretatione* in any number of ways. Progress has not been as great as in physics, to be sure, but neither has there been stagnation.

What I will try to do, at some length, is to clarify the sense of thought and ideation for which the expression theory of meaning holds true. I will focus on thinking as a propositional attitude distinct from believing and desiring, and will define ideas as thoughts or parts of thoughts. This will produce a theory similar in many respects to the “language of thought hypothesis,” which, I shall argue, cannot be taken seriously on its most common interpretations. Thoughts, on my view, are structured events, a particular kind of mental representation. They are similar in many ways to sentences, but are fundamentally different, and more fundamental. Thoughts are propositions in the sense in which belief and desire are propositional attitudes. We think when thoughts occur to us. All other propositional attitudes are different relations to thoughts. Thoughts have constituent structure in a literal sense that beliefs and desires do not. Since thoughts are readily introspectible, the failure to grant thought its proper place in psychology has deprived cognitive scientists of a large and fascinating body of data as well as crucial theoretical resources.

Ideational theorists have traditionally held that the meaning of a word is an idea, and that the sense of a sentence is a thought (§21.1). This identification is untenable, and I avoid it. Meanings are properties of words, their expressing ideas or other mental states. Another powerful objection to the ideational theory is that it merely defines one semantic notion in terms either of itself or of another notion equally in need of analysis. One line of thought in this direction depends on failing to perceive the significant differences between the meanings of words and the contents of ideas (Chapter 22). Another starts reasonably from physicalism, but then insists groundlessly that the semantic cannot be defined in psychological terms unless those are first defined physically (Chapter 23). A legitimate objection is based on the observation that we have gained little by explaining what a word *means* in terms of what a word *expresses*, unless we can explain expression independent of meaning. Indeed, it is natural to suspect that “expressing the idea *man*” just means “meaning *man*.” This suspicion leads

naturally to the conclusion that idea-talk, to the extent that it is legitimate, is just a *façon de parler* to be explained away in terms of meaning-talk, with the consequence that the ideational theory cannot possibly tell us what meaning is. The attempt of Hobbes and Locke to define “mark” was a step in the right direction, but hardly went far enough to be satisfying. The problem was not perceived, let alone addressed, by their followers. The solution, I believe, can be found by developing the work of H. P. Grice,⁵ who attacked the problem of meaning from a completely different direction.

§1.2 THE GRICEAN PROGRAM

Grice had a bold and original vision, one that has attracted scholars well beyond the bounds of philosophy. What words mean, Grice observed, is determined in some way by what speakers mean by them. What speakers mean is determined in some way by their intentions. The central subject of linguistics, it follows, is fundamentally a matter of psychology. While Grice’s initial attempt to specify how word meaning is related to speaker meaning was crude and unsuccessful, his attempt to define speaker meaning in terms of intention has found a wide following, and stimulated a large body of research.

To mean something, Grice said, is to act with the intention of producing a certain response in one’s audience by means of recognition of intention. Many thought that this analysis was basically right, and offered minor variations to handle a few tricky cases. Others observed that with slight adjustments, the Gricean condition could be used equally well to define the related notions of expressing and referring. Unfortunately, a broad and diverse body of familiar facts seems to show quite clearly that the Gricean analysis of meaning, expressing, and referring is fundamentally flawed. The principal error, I shall argue, is its emphasis on audience-directed intentions. This very feature, however, makes the Gricean condition a natural candidate for the analysis of informing, telling, and communicating. Indeed, almost as many philosophers have used the Gricean condition to define communication as have advocated it for meaning. Grice and his closest followers wrongly assumed, I shall argue, that meaning is the attempt to communicate.

I refer to expressing, referring, and communicating as *semantic acts*. They comprise a special class of illocutionary speech acts, distinguished in part by their fundamentality. “Speech act theory” has come to be

5 See Grice 1957, 1968, 1969a, 1982, 1986, 1989.

understood as the study of asserting, ordering, questioning, requesting, promising, apologizing, begging, and other similar actions. Much attention has been devoted to their classification and definition. All entail the performance of what I am calling semantic acts. It is impossible to assert something without expressing a belief. You cannot ask someone to do something without referring to and communicating with her. By contrast, none of the higher-order illocutionary acts are entailed by the semantic acts. I can express the belief that someone is asleep without asserting that he is. I can express a desire for you to leave without ordering or asking you to leave.

I shall define communication in terms of meaning, meaning and referring in terms of expression, and expression in terms of intention (Part I). I shall thus be carrying out part of Grice's program. But the intention that I specify differs markedly from the Gricean intention. We need to distinguish clearly between Grice's general program, and the specific implementation that he proposed. In place of the intention to produce certain responses in an audience, I substitute the intention to produce an indication that one has certain mental states. Since indication is a close relative of what Grice called natural meaning or signification, my account is more Aristotelian or Lockean. I hope to make it clear that my analysis accommodates simply and naturally the whole dizzying array of facts that are problematic and must be explained away on competing theories. The Gricean analysis, for example, has trouble with the familiar fact that people often talk to babies, and mean something when they do, despite having no intention to produce a belief in them. Hand waving, bullet biting, and other desperate measures are unnecessary on my account: someone talking to a baby is still expressing thoughts and beliefs, and does intend to provide an indication that he has them. The stultification and defeatism characterizing recent work on semantic acts is a product, I submit, of an irrational fixation on the specifics of Grice's proposal.

While semantic acts are the central focus of Part I, our attention will not be confined to them. Complete understanding of the act of communicating, for example, requires comparing it to informing and telling, which are higher-order illocutionary acts. Since understanding a speaker requires grasping what he or she means, we will implicitly be shedding light on the nature of understanding. We will not, however, be investigating how we understand words, or how we produce meaningful speech, which are empirical problems for cognitive science. Our general goal is to shed light on meaning, expression, communication, and reference by showing the exact location of these concepts in our larger conceptual scheme. In the

process, we will distinguish two different kinds of communication and four different kinds of speaker meaning. Given the importance to human beings of the general activity of conveying ideas, it should not be surprising that we have a complex system of concepts specifying different but closely related ways of doing so. My goal is to delineate the structure of this system.

Toward the same end, I will also attempt to explain how word meaning is related to speaker meaning, thus tackling the other part of the Gricean program (Part II). This will involve defining what it is for a speaker to use a language, and for a language to be a living language. The theory to be advanced is simultaneously a use theory, an ideational theory, an intentionalistic theory, and a conventionalist theory. The relation between truth and meaning will be duly explained. A language, on my view, is a system for the expression of ideas and other mental states. It is a living language only if it is used conventionally by a group of speakers for the purpose of communication. What words mean in a living language is dependent on the conventions in that group governing what speakers mean by their words. The referential properties of words are those of the ideas they express. I hope to show, in short, that generative semantics and sociolinguistic pragmatics are complementary rather than competing approaches to the study of language. To round out the study, we will briefly examine meaning in artificial languages and idiolects. Meaning here is established by stipulation and individual practice, respectively, rather than by convention.

One problem that Grice did not see arises from the relativity of word meaning to languages. "Rot" means "red" in German, "decay" in English. If we say that "rot" means "red" in German because it is conventional for German speakers to use "rot" to mean "red," do we not run in a circle? For what is it to speak German except to use words to mean what they mean in German? How can we pick out the conventions that determine what words mean in German without identifying them as the conventions to use words to mean what they mean in German? The answer will lie partly in the self-perpetuating character of conventions, in virtue of which usage today evolves from prior usage, and partly in our ability to identify new languages without knowing what words mean in those languages.

Grice and his followers attempted to define word meaning in terms of one kind of speaker meaning: meaning *that* p by uttering e, which involves the expression of belief. This led, among other things, to difficulties with linguistic units below the level of the sentence, and to the problematic doctrine that word meaning must be defined in terms of sentence meaning. I avoid these difficulties by focusing on another kind of

speaker meaning: meaning “m” by expression e, which involves the direct expression of thoughts or ideas. In another respect, then, my neo-Gricean account is more Lockean or Aristotelian than Grice’s own. Our ability to define word meaning independent of sentence meaning will enable us to account for the compositionality and productivity of meaning. The meaning of a sentence is determined recursively by the conventions pairing word structures with idea structures, and by the basic conventions pairing the words in the sentence with ideas.

One of my main subthemes is that thought is as fundamental and important a concept of psychology as belief or desire. Accordingly, I will devote considerable attention to distinguishing thought from belief, developing the notion of ideas as thought parts (Part III). I will then rebut objections to ideational theories of meaning (Part IV). Given that our goal is to understand the nature of meaning, the “*de dicto*” attitudes will generally be more important for us than “*de re*” attitudes (see §6.2). Sentences ascribing propositional attitudes generally have transparent as well as opaque interpretations. The opaque interpretation will be our default.

While names have seemed especially problematic, they are easily accommodated by the expression theory once we abandon the widely accepted but groundless doctrine that all basic ideas are general or descriptive. Indexicals are more complicated than names, but can also be handled by the expression theory. Indexicals express a special type of thought-part that links with perceptions and other mental events, whose reference becomes the indexicals’ reference. I will develop the expression theory for these two domains in my forthcoming *Nondescriptive Meaning and Reference: Names, Indexicals, and Other Special Cases*. The other cases will include interjections, syncategorematic terms, conventional implicatures, and pejorative terms.

§1.3 SYSTEMATIZATION

This work is part of a larger project, which seeks to increase our understanding of psychology by systematizing its elements.⁶ Psychology, as I understand it, is the study of belief, desire, thought, intention, decision, reasoning, inference, fear, hope, joy, sorrow, pain, imagination, itches, tingles, sensations, and all of the other states and processes either available to introspection or closely related to those that are. Psychologists are

6 See the brief history of my *Belief, Desire, and Thought* in the Preface. Parts of the system have been published in Davis 1981a, 1981b, 1982, 1984a, 1984b, 1987, 1988a, 1988b.

empirical scientists specially trained in the art of observation, experimentation, and theory construction. In addition to the evidence available only to psychologists, there is a large body of common psychological knowledge. Some of this common knowledge is *a priori*, such as the knowledge that belief is different from desire and incompatible with disbelief. Some of it is *a posteriori* but nevertheless available to intelligent observers without specialized training, such as the knowledge that people who want to do something do not always do it. Part of it is linguistic, based on our knowledge of the language that we use to talk about psychological phenomena. Much of this knowledge is learned early as a part of normal maturation, rather than through formal study or schooling. By the “elements” of psychology, I mean the general principles that are either part of, or can be based on, this common knowledge. Note well that principles based on common knowledge need not themselves be common knowledge.

One way to increase our understanding of a subject is to systematize what is known about it. One way to systematize a body of knowledge is to organize it into a deductive system. In such a system, some terms are taken as primitive and others are defined. Some principles are taken as postulates and others are derived as theorems. Other things being equal, the greater the completeness and economy of the system – the greater the proportion of the knowledge incorporated, and the fewer the number of primitive terms and principles – the better the systematization. To the extent that it increases the integration of our knowledge, systematization increases our understanding. The project of systematizing the elements of psychology thus involves generalizing and integrating the body of common psychological knowledge. The goal is an increased understanding of psychological phenomena. The resulting system provides a framework for formulating the results of specialized empirical research, one that is general enough not to constrain it.

Expressing, referring, and communicating are psychological acts. Defining semantic acts in terms of intentions therefore contributes directly to the systematization of psychology. I believe that intention itself can be defined in terms of belief and desire. But that part of the systematization will not be presented here. Many philosophers are interested in the Gricean program because they believe that belief and desire will ultimately be identified with neurophysiological states, holding out the prospect of reducing semantics ultimately to physics. While I myself believe that the progress of science indicates that belief and desire are neurophysiological states, I will not be concerned to argue that they are. Resolution of the mind-body problem is not required to settle any of the issues we shall

confront. We will similarly remain neutral concerning Locke's empiricist thesis that all ideas are derived from experience by abstraction or definition, and its nativist rival.

Much of the literature in cognitive psychology is devoted to describing mental phenomena in metaphorical terms derived from computer science. An air of respectability is thereby created, based on the success of that field. The practice is much like that of Hartley (1749), who described the association of ideas in terms of vibrations in the neural aether. I believe that such metaphors are as blinding as they are illuminating. They also divert our attention to lesser tasks. We could easily spend a lot of time, for example, in a fruitless debate over whether thinking really counts as the "processing" of information, or as "operating on" a representation. I prefer the direct and literal description of the phenomena I am interested in. I am confident that anything that is precisely described can be represented digitally with a high degree of accuracy.

§1.4 ANALYSES

Most of the principles to be presented here are either definitions, or theorems following from the definitions. To define a given sense of a term is to state necessary and sufficient conditions for its application in that sense. The definition of speaker meaning, therefore, will take the form "S means that p if and only if S directly expresses the belief that p." The cumbersome "if and only if" will be abbreviated "iff." Definitions are often abbreviated further by putting them in the subject-predicate form "S is P." But when intended as definitions rather than mere predications, sentences of this form must imply that something is S if and only if it is P. An example is provided by the definition of convention offered in Chapter 9: "A convention is a regularity that is socially useful, self-perpetuating, and arbitrary," which implies that something is a convention iff it is such a regularity. Correct definitions must be neither too broad (meaning that the stated conditions are not in fact sufficient) nor too narrow (meaning that the stated conditions are not in fact necessary). That is, there must be no counterexamples.

There are many kinds of definition, serving different purposes.⁷ Since our goal is to increase our understanding of psychological and linguistic phenomena, we will attempt to provide definitions that tell us *what it is* for something to be what we are trying to define. We will try to explain what

7 For an introductory survey, see Davis 1986: §10.4.

it is for a word to have meaning, and more specifically what makes a word mean “red,” for example. We will accordingly look for defining conditions that are *essential*. Such definitions will be called *analyses*, without suggesting that the definiens and definiendum have to be synonymous or logically equivalent. It is true, for example, that something is a penny if, and only if, it is the U.S. coin with the lowest value. But this equivalence does not count as an analysis in our sense, since it does not tell us what it is for a coin to be a penny. Having the lowest value is not what makes a coin a penny. It is not essential to being a penny. Hence it is quite possible that the United States will someday introduce a coin lower in value than the penny, or (more likely) discontinue the penny, making the nickel the lowest-value coin. While analyses need not be *logically* necessary, they do need to hold in all genuinely possible cases. The conditions provided need to be “nomically” or “metaphysically” necessary and sufficient. Hence in determining whether a definition is too broad or too narrow, we have to consider hypothetical cases as well as actual ones.

The term “analysis” is typically used to mean a definition that is analytically true, that is, a definition in which the definiens and definiendum have the same meaning. “A bachelor is an unmarried man” is the classic analysis in this strict sense. We are using the term “analysis” without the requirement that the definitions be analytic or even logically true, because these properties are not necessary for a definition to tell us what it is for something to be what we are trying to define. “Water is H_2O ” tells us in a most informative way what water is, even though the definition is synthetic and logically contingent.

In addition to having no counterexamples, analyses must be individually as well as collectively noncircular. It is necessarily true that something is a cat iff it is either a white cat or a nonwhite cat. But this necessary and sufficient condition does not tell us what a cat is, or explain what makes something a cat. The best way of increasing our understanding of meaning is to define it in terms that are not themselves defined in terms of meaning, and only a noncircular definition can tell us what meaning is. We will therefore provide careful replies to objections that ideational theories of meaning in particular, and mentalistic theories generally, are circular in various ways (Chapter 22). And as indicated earlier, we will be very sensitive to the concern that we have gained little by defining meaning in terms of expression unless we can define expression independent of meaning.

The definitions that I present are generally intended not as stipulations, but as statements that are true when the semantic terms to be defined are

interpreted in their conventional senses. This does not mean that my purpose is simply to describe “ordinary language.” Rather, my purpose is to describe those acts we are normally talking about when we use the terms “mean,” “express,” “refer,” and “communicate” (or their equivalents in other languages). We want to know what it is for those acts to be performed. We could, and sometimes do, use these terms to talk about other matters. And there are plenty of other things people do that are worthy of study. But the fact remains that we all have a deep and abiding interest in what speakers mean by their words, what beliefs, thoughts, and desires they are expressing, what objects they are referring to, who they are communicating with, and so on. Our response to a speaker generally depends on our determinations in these matters, and the appropriateness of our response depends on their accuracy.

The attempt to define the ordinary sense of semantic terms is sometimes thought to be misguided. As Devitt (1981: 88) put it:

Philosophy is an area of knowledge, like others, concerned with theorizing about the world. Our concern here is to produce a *theory* about linguistic phenomena. The correct theory in semantics is no more likely to be discovered by examining ordinary semantic terms than is the correct theory in physics to be discovered by examining ordinary physical terms.

I too am concerned to produce a theory about linguistic phenomena. But there are lots of linguistic phenomena. Whenever a man opens his mouth, he performs a dozen different linguistic acts. He moves his articulatory apparatus in certain ways, produces certain speech sounds, utters certain words, means something by those words, refers to things, expresses certain thoughts, and implies something; he makes a statement, issues an order, or asks a question; he follows or violates linguistic rules; he communicates or fails to communicate with an audience, informs, bores, or annoys them; and so on and on. I need to tell you which of all those linguistic acts I am going to theorize about. Since I am writing in English, I am using the English words that are conventionally used to express the semantic acts I am interested in. The fact that my subject matter is expressed by words used every day by billions of people, which are learned early in life by all who develop normally, is an indication that my interest in the subject is not a personal quirk, nor the product of a fad. A linguistic or psychological theory that ignores these acts may be correct, but it cannot be complete. It is generally easy to produce a true theory by excluding difficult phenomena from its scope, or by changing the subject. Our goal is not just truth, but the whole truth.

Nothing I have said implies that in addition to meaning, referring, and the like, the speaker is not also doing many important things for which there are no conventional expressions. I am even willing to grant, as a logical possibility, that linguists and psychologists might someday show that meaning, expression, and communication (in the ordinary senses of these terms) are not actions of fundamental linguistic importance, just as physicists have shown that the color of an object is not of fundamental physical importance. But given what is currently known, this possibility seems extremely remote. It may also turn out that these terms are too vague to be scientifically useful, or that they classify together actions that have fundamentally different explanations. But that will not be established until we have a much better understanding of semantic terminology than we currently possess. I am quite confident that a theory of meaning that does not talk about meaning must fail.

I distinguish meaning from referential properties like truth and denotation in the usual way (e.g., §8.3). It may be wondered why we should study meaning when referential properties are so important, and when logicians and formal semanticists studying them have made so much progress. The motivation is simple: meaning is *also* important – indeed, it is one of the determinants of referential properties. Meaning is also more closely related to psychology, which is my primary interest. A final motivation for studying meaning is that it is *not* well understood. Scholars in all fields, and particularly philosophy, seek to understand what is not yet understood. It is laziness to avoid something because it is difficult, and cowardice to do so because the risk of failure is great.

As for Devitt's reference to physics, it should be recalled first that "truth" and "denotation" are also "ordinary" semantic terms. Second, one of the elements of the scientific revolution leading to the success of Newtonian mechanics was a sustained examination of the quite ordinary physical concept of motion, resulting in its analysis in terms of the ordinary concepts of "change," "place," and "time." That analysis and its application built on similar results achieved a millennium earlier for the ordinary concepts of point, line, plane, triangle, circle, and the whole Euclidean system. It would be foolhardy to predict the same measure of success from a study like this one. But it would be equally unwise at this stage in the investigation of language to propose a theory of linguistic phenomena without a careful examination of the concept of meaning.

Schiffer (1987a: 248) cites the "dismal history of analysis" as evidence that speaker meaning cannot be defined in terms of intention or anything else – that there is no correct, interesting, noncircular completion for

“S means that p iff ____.”⁸ I shall argue that there is more than one. But let us suppose that Schiffer is right. Would that make any attempt such as mine to improve on extant analyses a mere exercise in futility, a pointless waste of time? Certainly not. Schiffer’s schema, like those to be presented here, has an implicit universal quantifier. Universal generalizations are not the only useful or important generalizations. “Nearly all people die before they are one hundred years old” is a very important fact about human beings even though it allows for exceptions. It is not obviously less informative than the completely universal but temporally indefinite “All people die eventually.” “Almost all human beings are able to learn a language” is a fundamentally important fact about human beings even though it is not a universal generalization. It would represent a considerable intellectual achievement if we could truly and without circularity complete a schema of the form “*With few if any exceptions*, S means that p iff S has such-and-such intentions.” This would not count as a complete conceptual analysis or definitional reduction, nor as a complete theory of how speaker meaning depends on intention. But it would be highly informative nonetheless, and would tell us *at least roughly* what speaker meaning is, and how it depends on intention. Similarly, it seems clear that what words mean in natural languages depends in some way on what speakers of those languages use them to mean. It may not be humanly possible to state the nature of this dependence in its full generality. But it would be nice to find a rule that held in at least some cases. The greater the number and variety of cases for which the formulation holds, the better.

The objection to previous analyses in this light is not that they are not quite universally true. The problem is that the exceptions are many and various, and occur in the most familiar of cases. Better analyses are surely possible.

Expression theorists from Aristotle to Frege barely scratched the surface of the relationship between language and thought. It is remarkable how little progress was made over such a long period. This can perhaps be explained by the fact that expression theorists were primarily concerned with other areas: Aristotle and Frege with logic; Locke with epistemology; the association psychologists with the reduction of mental phenomena to sensation; functionalists with physicalism, and so on. We shall keep our attention firmly fixed on meaning, expression, and thought.

8 See also Fodor 1975: 124–56; 1981: Chapter 10; 1987: 161; Dummett 1975: 97–8; McDowell 1980: 124; and Stich 1983: 76–8. Compare and contrast Avramides 1989: §1.3; 1997: §4.