

Introduction

This book began as a paper on *De Interpretatione* 1, 16a3–8:

Spoken words then are symbols of affections of the soul [τῶν ἐν τῇ ψυχῇ παθημάτων] and written words are symbols of spoken words. And just as written letters are not the same for all humans neither are spoken words. But what these primarily are signs of, the affections of the soul, are the same for all, as also are those things [πράγματα] of which our affections are likenesses [ὁμοιώματα].¹

This description is Aristotle's only explicit attempt to define meaning, and it has been, as a recent commentator remarked, "the most influential text in the history of semantics."² Notwithstanding, the account of meaning found in these lines was dismissed by John Ackrill as inadequate, and Aristotle has found few defenders in more recent literature.³ Suspecting that the negative assessment had been too hasty, I set out to discover whether Aristotle might, after all, be right about meaning.⁴ Framing the issue in this way proved jejune, and my initial query was replaced by a series of questions: What position is Aristotle taking here? Is it an account of meaning in the modern sense? Is this account one that he tries out in a relatively early work and later rejects? Does the conception of language embodied in these lines help us better understand the linguistic and ontological notions of definition and universals that are key players in Aristotle's epistemology and metaphysics?

1 Unless otherwise indicated the translations will be mine.

2 Kretzmann (1974, p. 3).

3 Ackrill (1963). Kretzmann (1974) defends Aristotle by denying that Aristotle intended to frame a general theory of meaning in *De Interpretatione* 1; Irwin (1982, pp. 241–66) distinguishes between a theory of meaning and a theory of signification and attributes the latter to Aristotle.

4 The negative assessment, whether hasty or not, is ubiquitous. It is not only found in commentaries on Aristotle but is often used by philosophers of language to preface the presentation of what they take to be a far better approach to meaning. A striking example of this use of criticism of Aristotle's theory of meaning is found in papers by two contemporary philosophers, who agree about little else: Dummett (1978, p. 95); and Putnam (1988: reprinted in Goldman 1993, p. 597).

Granted, the theory of meaning expressed in these lines is puzzling. Two troublesome relations are posited – one between a significant sound and an internal state and the other between that state and the external object of the state. Is the internal state an intentional content, a meaning, or is it a psychological state, an image? Is the thing of which the state is a likeness to be construed as the external referent of the internal state? If the internal state explains how phonemes bear meanings, why does the problem of skepticism not arise for Aristotle? If there is a necessary connection between the internal state, the meaning, and the external referent that determines the content, why does this not make the content inaccessible to the subject? The effort to answer these questions led me to divide the passage into three parts: the nature of words and the relation between the word and the mental state it signifies; the nature of the object that ultimately grounds the significance of the term; and the nature of the relation of likeness that obtains between the mental state and the object. These three parts provide the skeleton of the present study. The first is covered in Part I, which consists of four chapters about semantic, logical, and epistemological issues; the second is addressed in Part II, which consists of two chapters about ontology; and the third corresponds to Part III, which consists of two chapters about the cognitive capacities involved and a concluding chapter.

Far from being inadequate, *De Interpretatione* 16a3–8 summarizes a theory of meaning, I shall argue, that served Aristotle well throughout his career. The objectives of the present study will be three: first, to explicate the *De Interpretatione* description of meaning; second, to show that far from being of little relevance to other parts of Aristotle's philosophy, the theory of meaning summarized in these lines is of precisely the right sort to meet the requirements of his epistemology and metaphysics; and third, to argue that his theory of meaning has been much maligned. Part of my strategy will be to show that the *De Interpretatione* theory of meaning is one that meets a number of desiderata from Aristotle's perspective. First, it is simple, comprehensive, and internally consistent. Second, it provides a semantics for an epistemically adequate language. Third, it supports his analysis of definition in the *Analytics* and *Metaphysics*. Fourth, it is consistent with his account of the acquisition of basic concepts. This strategy results in an interpretation of Aristotle's theory of meaning in the context of his epistemology and ontology. This has several advantages. Chief among these are a deeper understanding of the empirical basis of concepts and successful articulation of the connection between meaning as a characteristic of the terms of a natural language and real definition as employed by the demonstrative sciences.

It must be admitted that the description of meaning in *De Interpretatione* 1 is, to say the least, highly compressed and elliptical. The crucial elements in Aristotle's summary are the word, the meaning-bearing men-

tal state (*pathema*), and the object in the world (*pragma*) that is the referent of the word; the crucial relations are the relation between the word and the mental state and the relation between the mental state and the object in the world. Each of these elements and relations will be examined below in order to explicate Aristotle's theory of meaning. In the course of this examination, the relevance of the theory of meaning to Aristotle's epistemology and ontological theory will become apparent. This in turn will engender further insight into Aristotle's reasons for rejecting Platonic intuition and Platonic transcendent Ideas in favor of a conception of knowledge firmly rooted in the world of physical objects and sentient knowers.

In Part I, the *De Interpretatione* passage is interpreted in the context provided by the logico-semantic and epistemological doctrines found in the *Organon*. There, the basic entities are simple subjects and their characteristics. For language and logic, the basic items are simple subjects and predicates. For epistemology and ontology, the basic units are simple substances and their properties and relations. Throughout, Aristotle assumes that the basic categories of language, knowledge, and reality are structural equivalents.

In the *Categories* and *De Interpretatione*, Aristotle develops an account of language adequate to the expression of demonstrative knowledge. Meaning and truth are critical features of language viewed from this perspective. Aristotle looks for the linguistic elements that are the basic units having meaning and truth, and he finds them, respectively, in words having reference and simple assertions. Fleshing out Aristotle's conceptions of reference and truth is the goal of the first two chapters of Part I. The remaining two chapters of Part I continue the investigation of Aristotle's theory of meaning by situating it in the epistemological context provided by the *Posterior Analytics*. Aristotle's intent, I shall argue, is to give an account of language and its relation to the world that supports, inter alia, the realist epistemology of the *Posterior Analytics*. Two topics covered in the *Posterior Analytics* bear directly on the explication of Aristotle's theory of meaning. Definition is discussed at some length, as is the acquisition of universal concepts. These texts provide a test for the interpretation of Aristotle's theory of meaning developed in the preceding chapters. In addition, once consistency is established, they will prove useful aids in the effort to fill in the details of Aristotle's theory of meaning.

Chapter 1 examines Aristotle's handling of the issues surrounding meaning and reference in the *Categories* and the *De Interpretatione*. The philosophical context in which Aristotle addresses these issues is provided by his predecessors, most importantly by Plato, and thus the first order of business is to look at Plato's *Cratylus* on meaning and reference. The *Cratylus* is a sustained attack on the theories of meaning that were currently in vogue. Two theories are canvassed there and shown to be in-

adequate. These theories, moreover, would appear to exhaust the possibilities: either words are conventional signs and meanings are assigned by human beings and can be changed at the whim of the language user(s), or words are natural signs. Naturalism is shown to be required in order to give an adequate account of truth; conventionalism, however, is shown to provide a more satisfactory account of the way in which the words of a natural language acquire, maintain, and change their meanings. In the *De Interpretatione*, Aristotle chooses to negotiate a compromise between the two rejected alternatives. The relation between written and spoken words is conventional, as is the relation between spoken words and the mental states that are the vehicles of meaning; different languages correlate different sounds with the same intentional content and the same sound with different contents. Notwithstanding, the relation between the mental state and the object it represents is natural – the same for all humans – and reference is secured by resemblance.

The discussion of the *Cratylus* is followed by a discussion of Aristotle's views on predication and an argument to show that significant terms refer to real objects. In order to understand Aristotle's conception of words and the mental states words signify, I turn to his analysis of language into basic linguistic units and rules governing the generation of complexes out of these elements. Subjects are primary, both grammatically and ontologically, and this fact has significant consequences for Aristotle's theory of meaning and his construal of definition. A referential term denotes a subject existing in the world. The meaning of the term is determined by its referent. By making subjects primary, Aristotle makes the meanings of all terms ultimately dependent upon their relation to extralinguistic subjects. Moreover, the distinction between nominal and real (scientific) definition that figures importantly in Aristotle's epistemology derives its importance from the real definition's successful reference to actual objects whose essence it articulates.

The notions of truth and necessity as employed by Aristotle are the subject of Chapter 2. Both are predicates of sentences and their correct application is a function of the relation between the sentence and the extralinguistic state of affairs expressed by the sentence. Despite some initial hesitation, Aristotle opts for a correspondence theory of truth and an externalist account of necessity. Because meaning is a function of reference in the *De Interpretatione*, the relevance of truth conditions to meaning is evident, and one might expect Aristotle promptly to define truth. This expectation is not met, because Aristotle tends to view truth as an unproblematic notion. Neither the *Categories* nor the *De Interpretatione* explicitly defines truth, although the notion figures importantly in arguments found in these works. Because Aristotle has more to say about truth in the *Metaphysics* and because, as I shall argue, these remarks are consis-

tent with the conception of truth found in the *Organon*, Chapter 2 also examines relevant texts from the *Metaphysics*.

Since Aristotle has many things to say about truth but leaves the notion undefined, an instructive way to approach his conception of truth is to ask what type of theory of truth is implicit in what he does say. That Aristotle accepts a correspondence theory of truth is well supported by his writings. A coherence theory of truth, however, seems to be implied by the strategy he adopts for defending the Law of Noncontradiction in *Metaphysics* IV, and the author of a recent influential study has defended the attribution of a coherence theory to Aristotle. I shall argue against that interpretation. Overall, *Metaphysics* IV supports the attribution of a correspondence theory of truth to Aristotle. This finding provides further evidence of the semantic importance of reference to mind-independent objects. Aristotle appears, for quite different reasons, however, to be committed to two notions of truth, namely, truth in the familiar sense, where the truth predicate applies to assertions in speech and thought, and a second sense of truth appropriate to the apprehension of an indivisible object of thought. Aristotle seems to be ambivalent about calling the correct apprehension of a simple essence 'true'; he avoids that description in *De Anima* III 6 but uses it in *Metaphysics* IX 10; yet in both texts he describes a second sort of object that the mind must get right in order to have knowledge. Aristotle's two notions of truth, I shall argue, express the same metalevel conception of truth as correspondence.

As in the case of truth, Aristotle construes necessity (also possibility) as a property that a statement has in relation to what it asserts. Necessity is of special interest to Aristotle, because it is central to his conception of knowledge. Just as the meaning of a sentence in ordinary language determines (and is determined by) its truth conditions, the meaning of a sentence in scientific discourse is a function of its specialized truth conditions. From the *Organon* to the biological treatises, Aristotle requires the sentences providing the foundation of a science to express necessary truths; such sentences ensure the timeless character of knowledge. The *De Interpretatione* conception of necessity as a predicate of sentences, I shall argue, is developed in the scientific treatises in a way that in effect yields a specialized truth predicate, necessarily true, that applies to the first principles of any science.

In Chapter 3, the relation between word and object is situated in the broader background theory of the requirements for knowledge. Demonstrative knowledge is knowledge par excellence. Demonstration is a method, not a subject matter. Demonstrative sciences are those that meet a demanding set of formal and epistemic requirements that Aristotle spells out in the *Posterior Analytics*. For every demonstrative science, there is a set of basic objects, the definitions of which are first premises. Aris-

totle's treatment of definition in epistemic contexts provides a wealth of material for the interpreter seeking to understand his views about meaning and reference. Aristotle draws a contrast between definition in the strict sense, the sort of definitions required for demonstrative knowledge, and lexical definitions, about which he otherwise has very little to say. In the *Posterior Analytics*, Aristotle discusses definition at length and recommends a method for producing the right sort of scientific definition; that method, however, like demonstration as a whole, is based on the presupposition that unmediated knowledge of basic objects is possible. Aristotle takes several stabs at describing the way in which universals, the building blocks of language and knowledge, are acquired by human beings – in *Posterior Analytics* II 19, *Physics* I 1, and *Metaphysics* I 1–2. At first reading, these descriptions appear inconsistent. In both *Posterior Analytics* II 19 and *Metaphysics* I 1, the cognitive movement is from particulars to universals, but a different cognitive process seems to be involved in the articulation of concepts as described in *Physics* I 1, where the cognitive movement seems to go from universals to particulars. The careful reading of these passages here, however, yields an interpretation that absolves Aristotle from the charge of inconsistency.

In *Posterior Analytics* II 19, Aristotle offers this sketch: the human mind is so related to the world that the mind is able to grasp the basic categories of reality. Looking at Callias, the perceiver sees a man, and this enables her to grasp the concept 'man'. Bringing this passage to bear on the *De Interpretatione's* account of meaning yields the following picture: existing in the world, the mind apprehends its structures – the types of natural objects and the modes in which entities exist as basic subjects or their characteristics. The impact of the world on us through our senses and intellect produces the concepts, which provide the foundations of knowledge and language, for not only are empirically produced concepts the basis of science, they also serve as the intentional content of the internal states that words symbolize. When one acquires a natural language, one acquires a classification scheme that is embodied in these internal states and is isomorphic with the things that are. Since these objects have stability, senses of words are stable and, for general terms, reference is fixed by sense, so that human beings equipped with a language are able to refer to and describe real objects.

Chapter 4 develops this line of interpretation further by examining the three types of theoretical science, namely, metaphysics, physics, and mathematics. The epistemological theory set out in the *Posterior Analytics* is a version of foundationalism that envisages first premises that are definitions of real objects. Aristotle fills out the details of this picture elsewhere. Examining the grounds for the distinction between the three types of theoretical science as formulated in the *Metaphysics* brings Aristotle's conception of the basic definitions required by a demonstrative sci-

ence into sharper focus. Once it is recognized that the primary definitions belonging to each type of theoretical science refer to physical objects or their properties or (in the case of abstraction) to objects derived from them, it is possible to articulate the conditions that the terms and definitions to be employed in a science must satisfy. Together, Chapters 3 and 4 establish a criterion of adequacy for an Aristotelian theory of meaning, and this criterion is internal to his semantics and epistemology.

The investigation undertaken in the first four chapters establishes that Aristotle is committed to a particular conception of language, according to which, terms refer to real entities that are definable. Definitions of the basic objects falling under the domain of a science are the foundational premises of that science. In Part II, Aristotle's ontology of substance in the central books of the *Metaphysics* is examined to determine whether it meets the ontological requirements of his semantic theory and epistemology as described in Part I. Part II is divided into two chapters: Chapter 5 examines the notion of essential definition developed in the *Metaphysics*; Chapter 6 looks at Aristotle's conception of essence. In *Metaphysics* VII–IX, Aristotle ultimately identifies the basic objects (primary substances) with forms that exist in matter and are apprehended by the mind. The existence of stable, extramental and intelligible objects is critically important to Aristotle's explanation of meaning and knowledge – for reasons that are clearly stated by Plato in the *Theaetetus* and accepted by Aristotle. Notwithstanding, Aristotle believes that Plato's ideal objects are an ontological complication that can be avoided by a proper analysis of the empirical basis for knowledge. To explicate the relation between essence, definition, and substance is Aristotle's primary objective in *Metaphysics* VII. The distinction between nominal and real definitions in the *Posterior Analytics* is developed further in the *Metaphysics* to make the real definition the expression of an essence of an extramental object. In order to secure the unity of the definition and establish the intelligibility of the individual substance, Aristotle attributes to the *logos* (formula) that is asserted by the definiens the very same form as the *logos* that is realized in matter. The sameness of the *logos* grasped in thought and the form of the concrete substance provides the missing link in the account of the acquisition of basic concepts in *Posterior Analytics* II 19. Because the mind is such that it is affected by the external *logos* presented in perception, the *logos* that is grasped at the end of the inductive process is, in the favored cases, the real essence of the substance in question.

Useful as this notion of definition proves in the *Metaphysics*, it presents a challenge for Aristotle's theory of meaning. Ordinary language depends upon words having meanings, and these meanings may be expressed in (nominal) definitions. For every significant term, there is a definition of this sort available. Aristotle seems to dismiss such definitions in the *Metaphysics*, where he equates them with mere synonymous strings

of words. This prompts the question in Chapter 5: Has Aristotle given us an account of definition in the *Metaphysics* that is of little help in understanding meaning in the context of ordinary language? I argue that despite the obvious tensions between the requirements for linguistic and real definition, there is common ground, and, moreover, that Aristotle exploits this feature in the methodological discussions in the scientific treatises.

Meaning requires an intelligible essence; knowledge requires a unified essence (to block a potential regress of basic objects). Aristotelian forms have the requisite character, as will become clear in Chapter 6. Forms exist in the world, make physical objects what they are, and are accessible to human minds. The ability to apprehend forms is the source of the definitions of essence that are fundamental to Aristotelian science; it is also the basis for Aristotle's analysis of language where terms have empirically based meanings. In the favored case, the meaning of a term for a natural kind will be the articulation of the species form that is realized in the individuals belonging to the kind.

Thus, the account of definition and essence in *Metaphysics* VII–IX provides the ontological underpinning required by the analysis of language in the *Organon*, as will be established in Part II. By the end of Part I, Aristotle's conception of language will have been examined, and within the context of his semantics, the importance of extralinguistic referents to determine meaning and warrant truth ascriptions will have been established. Part II picks up where Part I leaves off by turning to the ontological requirements of the semantics and epistemology detailed in Part I. By the end of Part II, only one task remains – to explicate Aristotle's claim that the mental state signified by a linguistic expression is a likeness of an extramental object.

In Part III, in Chapters 7 and 8, Aristotle is taken at his word that the explanation of the role likeness plays in securing reference in his theory of meaning is to be found in the psychological treatises. Chapter 7 weighs the considerations in favor of, and the considerations against, identifying the internal state in the case of meaning with an exercise of *phantasia* (imagination). Several factors favor this identification. *Phantasia* is mentioned by Aristotle in connection with human language and the *phantasma* (image) seems well suited to play the role of a likeness of an external object. *Phantasia* is the cognitive ability to use sensory contents to represent objects; these representations may be of objects in the subject's immediate environment, if conditions do not favor veridical perception of these objects, or of objects that were perceived on a prior occasion, or of objects that are constructions out of sensory contents that were previously acquired. A careful study of Aristotle's analysis of *phantasia* in the *De Anima*, however, establishes that *phantasia* alone is not powerful enough or versatile enough to support a satisfactory account of reference.

Chapter 8 looks for a way out of this difficulty by identifying the internal state with an exercise of the rational faculty. This stratagem (while yielding a more adequate account of meaning) appears to be at odds with Aristotle's appealing to likeness to explain reference. The role *phantasia* plays in thinking will then be marshaled in support of an explication of the cognitive component of Aristotle's theory of meaning that resolves this problem. Aristotle, I shall argue, construes sensory representation in a way that allows images to represent universals. Once this piece of the puzzle is in place, the cogency of his theory of meaning is secured. The meaning, as it turns out, is a way of conceptualizing the content presented in the *phantasma*. When the internal state is the recognition of an essence, the mental object is the same *logos* as the *logos* embodied in the external object. The challenge is then to explain why Aristotle believes that under these conditions, the *logos* qua cognitive object, which is a meaning, resembles the object to which the uttered sound refers. The answer is found in his claim (investigated in Part II) that the essence (*logos*) of the external object is the same *logos* as the one grasped in thought. Under ideal circumstances, using the *phantasma* of a concrete particular as a representation of a token enables the thinker to recognize the essence of the type to which the token belongs. In such cases, the *pathema* qua *phantasma* is like a token of the type and the *pathema* qua meaning is also properly described as a likeness of the *logos* realized in the concrete token.

Chapter 9 opens with a review of the findings of the preceding chapters. By this point, the explication of the *De Interpretatione* description of meaning will have led to a construal of this theory, which places it squarely within the broader context of Aristotle's epistemology and metaphysics, and the cognitive theory of the *De Anima* will have been shown to support a more sophisticated account of reference than at first meets the eye. In the final part of Chapter 9, I shall evaluate the overall cogency of Aristotle's theory of meaning and explore some of the common ground between Aristotle's views and modern philosophy of language.

Since several of the methodological assumptions that shape this work are somewhat controversial, let me give a brief defense of them here – even though I believe that their final justification rests with their fruitfulness in the course of the analysis to follow. First, I look at a number of treatises in the course of this study; some of these, like the *De Interpretatione*, are believed to belong to Aristotle's early writings and others that figure importantly here belong to Aristotle's mature writings. There is, on the one hand, a legitimate worry about anachronism when one uses a later doctrine to interpret an earlier one. On the other hand, it is important to remember that the treatises at issue were not published during Aristotle's lifetime and quite likely were reworked throughout his lifetime, so for an interpreter to adhere rigidly to a particular chronological scheme also seems misguided. It is my hope that I can steer a course be-

tween the two dangers by being sensitive to changes in Aristotle's positions over time and by still availing myself of doctrines spelled out in later writings to interpret earlier ones where there is a demonstrable continuity of thought.

Second, I assume that Plato's positions are seldom far from Aristotle's thoughts. There is considerable textual support for this view. Aristotle frequently refers to Plato or Plato's writings, and even in the absence of such references, in many other places in Aristotle's works there are so many similarities in vocabulary and issues raised that there should be little doubt about Plato's influence. In view of this evidence, Plato's writings should, I believe, be appealed to (when appropriate) in order to clarify the context in which Aristotle addresses specific philosophical issues. Typically, Aristotle's explicit references to Plato occur when he wants to differentiate his own positions from Platonic ones, and this supports the view taken here that for the most part Aristotle accepts the way philosophical questions have been framed by Plato but rejects Plato's answers.