1. The aim of this study is to develop an idea on the general form that a theory of meaning has to take. The idea in question is that the sense of a linguistic expression is given by some rules of its use in arguments. This is of course a particular interpretation of the Wittgensteinian slogan that meaning is use. This particular interpretation is clearly different from the view that meaning is all the use. Obviously, the use in arguments is not all the use. Moreover I shall not identify the sense of a sentence with all its use in arguments, but only with a part of the global use in arguments, the part which I shall call the immediate argumental role of the sentence. Thus my claim will be that the sense of a sentence is given by a central feature of its use in arguments. The thesis that knowledge of the sense of a sentence should be completely manifestable in a central feature of the use of that sentence has been defended by Michael Dummett. Indeed the theory I shall describe, though it is a theory of a new kind, different from the theories that Dummett has envisaged, is a theory which honours four general requirements on theories of meaning which Dummett has advocated. The four requirements, which will be analysed and defended in chapter 1, can be thus formulated:

1) Connection between meaning and understanding. A theory of meaning should be a theory of understanding. The meaning of an expression (word or sentence) or of an utterance is what a speaker-hearer must know (at least implicitly) about that expression, or that utterance, in order to understand it.

2) Distinction between sense and force. A theory of meaning should distinguish two aspects in the meaning of a linguistic act: a) the force, a general ingredient which is common to all the linguistic acts belonging to a certain category (e.g. the category of assertions, or questions, or commands etc.); b) the sense, which constitutes the particular content of the sentence that is used in that linguistic act.

3) Compositionality. A theory of meaning should contain a theory of sense which specifies what counts as knowledge of the sense of each sentence in terms of what counts as knowledge of the senses of its components in such a way that knowledge of the
sense of a sentential or subsentential expression, according to the theory, should presuppose only knowledge of a fragment of the language, not of the whole language.

4) Manifestability.
The knowledge of the sense of a sentential or subsentential expression should be completely manifestable in the exercise of a specific practical ability, so that an understanding of the expression can be publicly testable and any difference in understanding between two speakers can in principle be discovered.

2. The idea that the meaning of an expression is its role in arguments, or in reasoning, has been the starting point for many conceptions of meaning which are different from the one presented in this study. In chapter 2, in order to draw the reader's attention to some distinctive characteristics of my view, I shall briefly survey some of the other conceptions of meaning which start from such an idea. I shall examine Wittgenstein's, Dummett's and Prawitz's, Sellars', Harman's and Field's ideas on meaning, inference rules and conceptual role. My main conclusion will be that these conceptions are either too vague and undeveloped, or too restrictive with respect to the form of the meaning-giving rules, or in conflict with at least one of the four requirements.

3. The impatient reader may skip the first two chapters which are only a preparation for the exposition of my view. The exposition of the general form of a theory of meaning centred on immediate argumental role starts in chapter 3. For short, I shall sometimes call a theory of this kind "an argumental theory of meaning" and I shall call "the argumental conception of meaning" the view defended in this book according to which what counts as an understanding of a particular language is correctly described by an argumental theory of meaning for that language. The basic theses of my view are the following.

i To know (implicitly) the sense of a word is to know (implicitly) all the argumentation rules concerning that word.

ii To know the sense (i.e. the immediate argumental role) of a sentence is to know the syntactic structure of that sentence and to know the senses of the words occurring in it.
Chapter 3 is devoted to making these two principles precise by clarifying the notions of ‘argumentation rule’, ‘concerning’, ‘knowing the sense of a word’, ‘knowing the immediate argumental role of a sentence’. The clarification of these notions is achieved through the definition of various auxiliary notions. The most important supplementary notion is the notion of a reflexive, transitive and non-symmetric relation of presupposition between words: a word \( W^1 \) presupposes a word \( W^2 \) if, and only if, a speaker's understanding of \( W^1 \) entails his/her understanding of \( W^2 \). A meaningful language is represented by a triple \(<L,A,\geq>\), where \( L \) is a set of syntactic rules, \( A \) a set of argumentation rules and \( \geq \) a relation of presupposition between words. On the basis of the relation of presupposition the notion of ‘language fragment presupposed by a sentence’ is defined. According to the theory of meaning centred on immediate argumental role, in order to know the sense of a sentence in a language \(<L,A,\geq>\), it is necessary and sufficient to know the syntactic structure of the sentence and the senses of the component words. Such a knowledge requires only a knowledge of the language fragment presupposed by the sentence, which is a sublanguage of \(<L,A,\geq>\). Thus the theory fulfils the requirement of compositionality. A speaker's knowledge of the immediate argumental role of a sentence \( S \) is completely manifestable in the exercise of the practical ability to analyse \( S \) syntactically and to follow the argumentation rules concerning the words in \( S \). Thus the theory fulfils the requirement of manifestability too.

4. To know the immediate argumental role of a sentence is not to know all its use in arguments. In chapter 4 I shall give a precise notion of global argumental role of a sentence \( S \) in a language \(<L,A,\geq>\), which corresponds to the informal notion of ‘all the use of \( S \) in arguments in the language’. I shall show that the global argumental role of a sentence in \(<L,A,\geq>\) can transcend its immediate argumental role in \(<L,A,\geq>\). This is an important characteristic of the theory of understanding that I present in this book because it shows that the theory is compatible with epistemological holism, though it is compositional and incompatible with linguistic holism. Linguistic holism is here meant as the doctrine that in general in order to understand a sentence belonging to a language it is necessary to understand the whole language. Epistemological holism is meant as the doctrine according to which what can count as a justification of an assertion, i.e. as an acceptable argument for the asserted sentence, does not depend only on the sentence, on its component words and on the fragment of language that they presuppose, but also on other parts of the language and on other sentences accepted as true. Chapter 4 shows that epistemological holism in this sense does not entail linguistic holism.
5. The first section of chapter 5 is devoted to considering one of the most striking characteristics of the argumental conception of meaning: since the argumental conception does not place any *a priori* restriction on the argumentation rules that can give meaning to the words of a language, the argumental conception allows that there can be meaningful (i.e. understandable) *paradoxical* languages (or fragments of language). This feature of my view runs counter to a common assumption of many philosophers (e.g. Montague, Prior, Belnap, Dummett, Prawitz), the assumption that a paradoxical language cannot be meaningful and understandable. Against this assumption I shall claim that if we think that a theory of meaning *a)* should be a theory of understanding, *b)* should be adequate to explain linguistic practice and *c)* should satisfy the requirement of manifestability, *then* we ought to admit the possibility of meaningful languages that are paradoxical. I shall make out my case by exploiting the fact that we often construct and use (even fruitfully) languages that are paradoxical (think of set theory, or of the calculus in the Seventeenth century) and languages for which we have no guarantee that they are not paradoxical.

According to the argumental conception of meaning it is possible to understand paradoxical languages. But to maintain that we can understand paradoxical languages is not to deny that paradoxical languages are *incorrect*. The supporter of a theory of meaning centred on immediate argumental role *distinguishes between understandability and correctness of a language*. This distinction will be made in the second section of chapter 5. Mere understanding does not guarantee the correctness of the understood language. The notion of *correctness of a language* is of course different from the notion of correctness of an *argument* or an *assertion* which can be put forward *within* a language. The correctness of a language depends on different, contextual, sometimes conflicting, criteria (non-paradoxicality, simplicity, epistemic fruitfulness) which are relative to concrete epistemic situations in which the language is used. Thus, the judgment about the correctness of a language can change when the epistemic situation changes. Scientific change often involves language change, guided by the various aforementioned criteria.

6. Chapter 6 deals with assertion and truth. To know the immediate argumental role (i.e. the sense) of an uttered sentence is not enough in order to understand the utterance. According to the second general requirement on theories of meaning considered in chapter 1, it is also necessary to know the force of the utterance. If the utterance is an *assertion*, in order to understand it, one has to know the
assertoric force, which is common to all assertions. What is assertoric force? In other words: what does a speaker do, when he or she makes an assertion? In section 1 of chapter 6 I shall maintain that a first step towards an explication of assertoric force is to realize the connection between assertion and truth: by the act of asserting a sentence we implicitly raise the claim that the uttered sentence is true (in the circumstances of utterance). However, this view of assertion is open to many different interpretations, because the notion of truth could be interpreted in many different ways. In section 2 I shall consider two ways of interpreting the notion of truth: the redundancy theory of truth and the realistic transcendent conception of truth. I shall maintain that both views are compatible with the theory of sense centred on immediate argumental role described in chapters 3-5, but at the same time I shall advance independent considerations to the effect that both conceptions of truth are unsatisfactory. Then, in section 3 of chapter 6, I shall propose an epistemic conception of truth, which is not only compatible with an argumental theory of sense, but also shares the general spirit of such a theory, which gives priority to notions related to our epistemic and linguistic practice of giving arguments in support of assertions. According to the epistemic conception of truth proposed in section 3, a sentence S (possibly relativized to some circumstances of utterance if it contains indexicals) is true if, and only if, S (or an appropriate reformulation of S, if S contains indexicals) is assertable in an ideal epistemic situation. A similar idea was proposed by Hilary Putnam in Reason, Truth and History, but the idea remains unclear until some explication of the notion of an ideal epistemic situation is given. Following Peirce, I shall describe an ideal epistemic situation for a sentence S as a situation which would be reached in the long run if an inquiry concerning S were to be pursued in the best way, by employing enough time, collecting all relevant information, exerting enough thought, performing enough experiments etc., so that after having reached such a situation no further investigation could bring about a rational change of our attitude towards S. The course of inquiry concerning S and leading to an ideal epistemic situation for S involves also improvements of the language. Rational inquiry passes through many modifications of the language in which this investigation is carried on. Such modifications (which are also modifications of the accepted argumentation rules) are guided by the different criteria of correctness of a language mentioned in chapter 5. According to the epistemic conception of truth proposed in section 3 of chapter 6, a sentence S in a language \(<L,A,\geq>\) is true if, and only if, there is an ideal epistemic situation \(E^{*}\) for S in which an argument for S (or for an appropriate reformulation of S in case S contains indexicals) is constructed according to the argumentation rules of a language \(<L^{*},A^{*},\geq^{*}>\) which is correct with respect to \(E^{*}\) and which results from rational modifications of \(<L,A,\geq>\) and preserves the immediate argumental role
of S in <L,A,≥>. Thus – I shall maintain in section 4 – when we understand the assertoric force contained in an assertion, we implicitly understand that our language and its present argumentation rules can be rationally changed and enriched so as to comply more and more with the different criteria of correctness of a language, in order to reach an ideal epistemic situation where the truth-claim raised by the act of assertion can be justified. The assertoric force that we attach to the asserted sentences makes our language open and dynamic, it drives us beyond the set of rules that we presently accept, towards possible rational changes of those rules. Our understanding of language does not give us in advance a specific knowledge of what the particular changes will or can be, because they depend on the future epistemic situations in which the language can be used, which cannot be foreseen. But by understanding assertoric force, we understand that the language is open to such changes.

7. Chapter 7 will draw an important consequence from the thesis of chapter 5 that the understandability and the meaningfulness of a language do not guarantee its correctness and from the connection between truth and correctness of the language expounded in chapter 6: there are not sentences that are true only in virtue of meaning, i.e. only in virtue of what constitutes a speaker's understanding. In other words, as Quine concluded already in 1951 in "Two Dogmas of Empiricism", but for somewhat different reasons, there are not analytic truths. Differently from Quine, I shall maintain that it is possible to distinguish between knowledge of language, which constitutes our understanding of the language, and the rest of our knowledge. The rest of our knowledge consists of statements for which we have arguments that are constructed in the language, but are not constitutive of linguistic understanding. If a speaker hadn't constructed such arguments, ignorance of the arguments would not affect the speaker's understanding of the language and he or she would not be counted as lacking linguistic competence because of such an ignorance. But, though we can distinguish between knowledge of language and the rest of knowledge, there are not analytic truths. The truth of a statement is its assertability in an ideal epistemic situation. Assertability in an ideal epistemic situation does not depend only on what one has to know in order to understand the uttered sentence, but also on whether – in the ideal epistemic situation – the language to which the sentence belongs satisfies the many contextual criteria (non-paradoxicality, simplicity, epistemic fruitfulness) considered in chapter 5. Such criteria are ultimately related also with the possibility of dealing with empirical evidence by means of the language in question. Therefore a sentence cannot be true only in virtue of its meaning. In particular logical truths are not true in virtue of the
meanings of logical constants. The understandability of a logic does not guarantee its correctness. The correctness of a logic depends on the correctness of the language in which the logic is framed, which can be evaluated only in concrete epistemic situations. Such an evaluation may change in subsequent epistemic situations until an ideal epistemic situation is reached where the attitude towards that logic becomes stable. A theory of meaning centred on immediate argumental role answers the question about the understandability of a logic. In order to understand a logic we need only to know the argumentation rules concerning the logical constants. In order to give meaning to a logical constant it is sufficient to associate some argumentation rules with it. Thus, the view I expound in this book is pluralistic with respect to the understandability of different logics. But the theory of meaning cannot answer the question whether a logic is correct or not, because the latter question must be decided in concrete epistemic situations which the theory of meaning cannot describe in advance. Thus, an argumental theory of meaning is neutral with respect to the correctness of a logic. In the last section of chapter 7, on the basis of these ideas, I shall criticize Dummett's argument against classical logic and in favour of intuitionistic logic.