GRICEAN INFERENCE REVISITED

Asa Kasher

Grice's theory of implicature has shown, since his William James lectures in 1967, all the natural marks of a break-through. Grice's observation that we know not only how to do things with words we say, but also how to say things with deeds we do, pierced some conceptual fence. The pragmatic breach, as any other new gap in an old hedge, has served as an open invitation to a novel hunt. Many linguists and some philosophers tried to rush the Gricean terrain, hunting down new theoretical crackers for their old, hard linguistic nuts. Some philosophers and a few linguists are still wandering around the gate of implicature, trying to clear the cooperative treshold or tell the framehead of relevance from the posts of quantity and quality and the like. Some philosophers are still reluctant to cross the semantic fence into pragmatics, the limits of their theoretical language being the limits of their world, so to speak. In the presnet paper I intend to take a different route across Grice's theory. Eventually, I would like to specify the extent to which that theory constitutes a *philosophical* progress in pragmatics.

I put emphasis on the philosophical aspects of the theory of implicature, but not because of any overestimation of the boundaries between philosophy and linguistics or psychology. It was Quine who once said that "boundaries between disciplines are useful for deans and librarians, but let us not overestimate them — the boundaries. When we abstract from them, we see all of science .. as a single sprawling system, loosely connected in some portions but disconnected nowhere". Since philosophy is, as Quine puts it, "a wing of science" or "an aspect of science", it would not be advisable to look for a sharp cleavage between philosophy of language and other studies of language, even if such a pursuit results in a division which leaves many things I dislike on the right side of the border.

If one may still emphasize the philosophical aspects of theoretical pragmatics, it is just because it seems that certain theoretical problems are better understood when posed on a philosophical background rather than on a purely linguistic one. In other words, the philosophical wings of the study of language may involve research programmes, perspectives, standards and methods which are different from, if not alien to those of the adjacent disciplines.

The distinction I have in mind is best reflected in the way pragmatics itself is portrayed by different theoreticians.

For some linguists, pragmatics is part of performance theory and not of competence theory. Thus, for Katz and Langendoen "a semantic performance theory is a system of rules that specifies how contextual factors interact with grammatical sturcture to determine an utterance meaning for each token of a sentence type : it concerns itself not with sentence types but with their spatio-temporal tokens, and not with grammatical meaning but with utterance meaning. Thus we may regard a semantic performance theory as a theory of pragmatics."[1] I don't know to which extent such a token-to-type theory carries psychological interest, but clearly the theoretical perspectives of such a theory, as well as the standards of evidence sought for its principles or the methods used for its presentation are all of no particular interest for the philosopher of language. Definitely, a philosopher would not be interested in such a token-to-type theory more than a chess theoretician should be expected to be interested in a theory concerning the physical forms or movements of pieces of chess.

Several other conceptions of pragmatics centre upon major features of linguistic activity. It has been suggested that pragmatics concerns itself with indexical expressions, with speech acts, with contexts in which speech acts are performed, or with combinations of such features. I have proposed for pragmatics a more general theoretical goal, *viz.* the specification and explanation of the constitutive rules of the human competence to use linguistic means for effecting literal purposes[2].

Notice that though my delimitation of pragmatics resorts to concepts of means and ends of speech acts, pragmatics is not the study of purposive use of language. Unlike socio-linguistic theories, pragmatics concerns itself with just one kind of purpose. Whereas

Dell Hymes, for example, is interested in "the purposes, conscious and unconscious, (and) the functions, intended and unintended, perceived and unperceived, of communicative events"[3], I see no point in pragmatics being extended much beyond what might be called literal purposes. The latter are not the most important purposes speakers have in mind when they utter words and sentences, but they are the most basic ones, in the sense that they do not induce any assumption about any other use of the same linguistic means under the same circumstances. For instance, one might yell "Fire !" in order to save his friend's life or in order to draw the attention of a fellow-fireman, which shows that each of these two distinct ends is not a literal purpose of the utterance of "Fire".. If "Fire !" is not ambiguous, then its different utterances should share their literal purpose form. Hence, pragmatics is not the study of purposive linguistic activity, but rather the study of literal purposive activity.

The present delineation of pragmatics renders it philosophically more interesting, I believe. It is amazing how philosophical theories of speech acts are sequestered from philosophical theories of action, though J. L. Austin made some steps in the opposite direction. Now, a theory of the human competence of using linguistic means for effecting literal purposes will eventually lead us to one of the following conclusions : Either that the competence to use language is an instance of a general competence to use means for effecting ends, as applied to the means and ends of language, or else that there is, in the human mind, a special competence of using language in literal ways. Either conclusion seems to be of at least some philosophical interest, for the light it might shed, for example, on the meaning as use philosophy of language. Later on, I will try to put Grice's theory in the perspective of the right conclusion.

An attempt to understand any human competence is, first and foremost, an attempt to delineate it. One does not have a full grasp of a certain human faculty, as long as he is unable to tell it from every other faculty. Consequently, pragmatics, in the present sense, calls for a distinction between internal and external uses of language.

To see the point of the distinction, compare the knowledge of assertion with the knowledge of ship naming. Both types of speech act are similar in many respects. For example, each has a sphere of activity which is defined by a certain constitutive system of rules.

But whereas a person cannot get mastery of a human language without knowing how to play a role in games of assertion, a person's knowledge of English should not be taken to be incomplete in case he does not know how to bet, willing, for example, to utter sentences such as 'I bet you sixpense it will not rain tomorrow' without knowing that "for a bet to have been made, it is generally necessary for the offer of the bet to have been accepted by a taker."

The problem, then, arises of how to draw a limit between those kinds of speech act the rules of which form part of the rules of language, such as the rules of assertion, and the other kinds of speech act, such as ship naming and betting, bequeathing and marrying, acquitting and introducing, the rules of which do not seem to belong to language proper.

This problem, of the pragmatic demarcation of language, is directly related to the philosophical problem of drawing a defensible distinction between analytic and synthetic statements. If we call a person who has mastered just those systems of rules which govern the speech acts belonging to language proper "a minimal speaker", then a major theoretical goal of pragmatics would be the characterization of minimal speakers. Whether minimal speakers of different natural languages share their repertoires of speech acts is a problem of much philosophical interest which I am unable to pursue here[4].

In conclusion of the introductory part of my paper let me just outline two arguments, each showing that a certain speech act is necessary, in the sense that minimal speakers are required to master it.

First, Assertion. Any kind of speech act is governed by rules, some of which specify "mental conditions", such as desires, intentions, preferences, reasons and the like. Using a broad sense of the term 'thought', we may safely say that any kind of speech act involves a speaker who entertains thoughts. But, as has been shown, having a thought, in that broad sense of the word, requires that there be a background of beliefs. Consequently, any kind of speech act involves a speaker who entertains beliefs.

Beliefs, in turn, are related to truth. If I believe of a banknote that it is a forgery, then indeed I hold it true that the banknote is a forgery. If truth is a matter of evidence and justification,

then beliefs should rest on evidence or require justification of another appropriate type. I have evidence concerning the bank-note, because of which I believe that it is forged. I am generally justified in relying on my perception of the colour of objects in front of me, unless there is a reason to cast doubt on the appropriate-ness of the conditions of vision, and that is why I am justified in holding it true that the typewriter I am using now is red.

Now, by showing that beliefs require justification, in which evidence may play a significant role, one has shown that beliefs are results of acts of judgment. Even when a belief seems to have sprung into one's mind, such as in the case of perceptual beliefs, a related judgment is discernible. That a chess master immediately responds to his opponent's move does not show that no judgments have been involved. Quick or short circuited judgments are judgments all right.

What, then, is a judgment ? To quote Dummett, "judgment is the interiorization of the external act of assertion. The reason for viewing the two this way round is that a conventional act can be described, without circularity, as the expression of a mental state or act only if there exist non-conventinal ways of expressing it.. Most judgments, however, it would be senseless to ascribe to someone who had not a language capable of expressing them, because there is no 'natural' behaviour, which taken by itself, is enough to express those judgments."[5]

The outline of our case for the necessity of assertion is there-fore as follows : Assertion is prior to judgment, judgment is prior to belief, belief is prior to thought, in the broad sense. Since the latter is involved in every kind of speech act, assertion is prior to all other kinds of speech act.

Now, on the assumption that assertion is necessary, it seems one may draw a similar conclusion for asking.

R.G. Collingwood argued in his autobiography[6] that know-ledge is a process in which first a question and then an answer play the major roles. To know, then, is to gain an answer to a question. In the logic that Collingwood developed in order to sustain his theory of knowledge, propositions exist only as answers to questions and a proposition is true only if it is a right answer to a given question.

But even if one does not adopt Collingwood's view about the priority of questions over assertions, another method may be tried for showing that if minimal speakers can assert they can also pose questions.

Consider two minimal speakers who are aware of each other. Each of them is aware of his own ability to assert, which he often does in the presence of the other, who is also aware of his ability to assert and who also often asserts in the presence of the other minimal speaker. Moreover, speech acts of assertion performed by one of these speakers are rightly interpreted by the fellow minimal speaker as such. We assume, therefore, that minimal speakers have the mutual knowledge that minimal speakers can assert.

Granting that minimal speakers *qua* persons are purposive and resourceful, it would be only natural to believe that minimal speakers, who know that each of them can and does assert, will try to use each the assertive powers of the others. Minimal speakers will try to elicit assertions of their fellow minimal speakers.

A minimal speaker will be interested, not in his fellow's merely engaging himself in asserting, but in the latter's making an assertion of a certain type, appropriately related to other objects, states, processes or whatever the former minimal speaker is interested in at the moment. Thus, attempts to elicit assertion should vary to the same extent that assertions differ from each other. Since there are no natural, non-linguistic ways of conveying the differences between assertions, there could not be natural, non-linguistic ways of trying to elicit assertions of all different kinds. This is why attempts to elicit assertion in a natural language should be performed within the same language. If a question is an attempt of a kind to elicit assertion or judgment, then clearly questions are of linguistic nature. Hence, minimal speakers will have in their repertoire of speech acts not only assertion but also asking.

From a theory of minimal speakers, which is meant to show that our pragmatic competence comprises less than the whole variety of full-fledged repertoires of speech acts, I would like to turn to a discussion of Grice's theory of implicature, which actually shows that the same pragmatic competence is much more than just a repertoire of speech acts.

Almost all the work that has been triggered off by Grice's lectures on implicatures has taken the form of clarification of details or application of principles. But using the ordinary *licentia philosophica* one might suggest treading a different route. What justification do we have, *qua* persons who speak and understand a natural language, for following any of the Gricean maxims, super-maxims or principles ? -- that is the problem I would like to tackle in the sequel. To be sure, clarification and applications may well contribute to an attempt at answering that question, but they alone won't do : One does not get to the roots by cleansing the trunk or using some branches.

Notice that justification is required not only for the famous quartette of super-maxims and the allegedly underlying cooperation principle, but also for various other maxims that have been suggested during the last few years. To mention just three examples, "Speak idiomatically, unless there is reason not to", which has been suggested by Searle, "Do not say what may harm you", used for explaining some examples by Gotz Hindelang, and "facillitate in your form of expression the appropriate reply" or "frame whatever you say in the form most suitable for any reply which would be regarded as appropriate", both having been suggested by Grice himself. Where do all these maxims stem from is, indeed, a question related to our problem of justification.

I would like to justify Grice's conversational maxims by showing that they all follow from rationality principles as applied to speech acts, under some assumptions. I will try doing that by circumventing what seems to me to be a problematic part of Grice's theory of conversational implicatures, *viz.* the cooperative principle. The general arguments will be followed by two applications; first, it will be shown how similar arguments apply to non-conventional implicatures in a different area of non-natural meaning, that is art, and secondly, it will be shown that our rendering of Gricean conversational implicatures suggests a natural way of depicting Gricean conventional implicatures.

Grice himself has, of course, been interested in rational justification of his maxims. In his "Logic and conversation"[7] he says — "I am.. enough of a rationalist to want to find a basis that underlies these facts, undeniable though they may be; I would like to be able to think of the standard type of conversational practice not merely

as something that all or most do *in fact* follow but as something that it is *reasonable* for us to follow, that we *should not* abandon". Rationality plays a role in different corners of that paper. The starting point for a discussion of the cooperative principle is the observation that "our talk exchanges do not normally consist of succession of disconnected remarks, and would not be *rational* if they did", and then Grice says about the maxims that he stated them as if the "purpose that talk.. is adapted to serve and is primarily employed to serve... were a maximally effective exchange of information... or influencing or directing the actions of others." These being the purposes of talk or talk exchange, Grice sees the latter "as a special case or variety of purposive, indeed, rational, behaviour".

However, when we look in Grice's paper for an indication of his view on the nature of the rationality principles underlying the conversational maxims, we find just two clues. First, Grice rejects the idea that "observance of the CP and the maxims, in a talk exchange, could be thought of as a quasi-contractual matter, with parallels outside the realm of discourse", and secondly, he remarks that some of the maxims "have their analogues in the sphere of transactions that are not talk exchanges."

Granting that speech acts are instances of "purposive, rational behaviour", could we justify observance of the conversational maxims by grounding them on most general rationality principles, ones which apply to each and every kind of purposive, rational behaviour, or do we have to introduce special assumptions concerning the nature of language in order to be able to derive the maxims from underlying principles ? Whereas Grice's paper suggests the latter way, by resorting to the allegedly transactional nature of speech exchanges, I would like to defend the former alternative.

The general rationality principle on which we wish to ground all the conversational maxims is the principle of the effective means :

(R) Given a desired end, one is to choose that action which most effectively, and at least cost, attains that end, *ceteris paribus.*

When the principle is put to use by a speaker it simply meant to be observed to the best of the speaker's judgment. When the

principle is used for explaining human intentional behaviour, the leading norm is a rationalization principle :

(RP) Where there is no reason to assume the contrary, take the speaker to be a rational agent. His ends and beliefs, in a context of utterance, should be assumed to supply a complete justification of his behaviour unless there is evidence to the contrary.

Such a rationalization principle is, indeed, used in every derivation of a conversational implicature.

Let us see, now, how the general rationality principle justifies each of the conversational maxims.

Taking the maximally effective exchange of information to be the purpose that talk is adapted to serve, the first maxim of Quantity, related to the quantity of information to be provided, instructs the speaker to make the contribution "as informative as is required", i.e. not less informative than is required under the circumstances of utterance.

The generalization of that maxim is straightforward : Given a purpose that speech acts of a certain type are adapted to serve, the speaker is instructed to make a speech act which would be as effective as required, i.e. not less effective than is required in the context of utterance, *ceteris paribus*.

This generalized form of the first maxim of quantity is, of course, an immediate consequence of the rationality principle of effective means. Given a desired end, one is required by that principle to act most effectively for attaining that end, *ceteris paribus*.

The second maxim of Quantity of information instructs the speaker not to make his "contribution more informative than is required". Again, the generalization is self-evident : Given a purpose that speech acts of a certain type are adapted to serve, the speaker is instructed to make a speech act which would not be more effective than required, *ceteris paribus*. Everything else being equal, one should prefer a cheap way of attaining a given end over a more expensive one. This too is a simple consequence of the general

rationality principle, according to which a rational agent will choose that action which attains a given end at least cost, *ceteris paribus*.

Thus, both parts of the maxim of Quantity are derivable from the principle of effective means.

The same line of argument leads us to one of Grice's maxims of Manner, *viz.* "Be brief (avoid unnecessary prolixity)". Given two different ways of saying the same thing, a rational agent would prefer to say what he has in mind, at least cost, so to speak. What counts as *least* cost depends, indeed, on a given measure, of time, energy, words or whatever the speaker cares to spare. For certain measures of utterance "be brief" or "avoid unnecessary prolixity" are, then, very simple corollaries of the general rationality principle.

What about the other maxims of Manner — "Avoid obscurity of expression", "Avoid ambiguity", "Be orderly" — and the super-maxim "Be perspicuous" ?

To see how such maxims are grounded on the principle of effective means, consider two plans for action both meant to attain the same end. Now, one of these plans secures the achievement of the undertaken end, whereas the other plan brings an agent who follows if to a state in which the desired end is just a possible or probable result. Everything else being equal, a plan of the former type should be preferred by a rational agent to a plan of the latter type. When a plan of the latter type is about to be carried out, the desired end is not secured and, consequently, further resources might have to be invested in order to assure accomplishment. Under such circumstances, a plan which secures the desired ends is clearly preferable, *ceteris paribus*.

A case of genuine ambiguity has a similar form. A sentence which has two different readings, none more natural than the other under the circusmstances, is on a par with a plan which has either a result sought for or a completely unsought-for result. A rational speaker will, then, avoid ambiguity, because being a rational agent he opts for plans of the former type rather than for those of the latter type, *ceteris paribus*. The same holds for the rational speaker's avoiding obscurity of expression, as well as his being orderly.

At this point it might be useful to consider an objection that

has been raised to Grice's claim that it is reasonable for speakers to follow the maxims. Elinor Keenan described a community of Malagasy speakers who make their conversational contributions intentionally uninformative, indefinite, obscure[8]. Does it cast any doubt about the universality of the related conversational maxims ? Gerald Gazdar, for example, takes Keenan's findings to "imply that Grice's maxims are only 'reasonable', and 'rational' relative to a given culture, community, or state of affairs. They cannot be defended as universal principles of conversation."[9]. Robert Harnish tried to obviate the difficulty by suggesting that for the maxims to be universal they must be interpreted as conditional rather than categorical, that is to say, they apply when the cooperative principle is in effect[10].

I would like to suggest a different sloution to Keenan's problem. I cannot accept Gazdar's cultural relativism of the maxims, because the rationality principle of the effective means is not a feature of our culture. Our attitudes, values and purposes may well depend on our culture, but given a desired end, a rational speaker of any cultural denomination is bound to choose that course of actions which most effectively and at least cost attains the given end, *ceteris paribus.*

I cannot accept Harnish'es solution of Keenan's problem, because no reference to the cooperative principle has been made in our derivations of the maxims of Quantity and Manner from the principle of effective means. Unless the cooperative principle is shown to rest on a general rationality principle, the suggested restriction of the conversational maxims cannot be presently warranted.

Keenan's interesting observation presents a problem as long as we focus our attention on the wrong part of the picture. Indeed, if the purpose that a speech act of a rational speaker is employed to serve is providing information in a most effective way, then a problem is created by an uninformative rational agent. However, a rational speaker opts for a speech act which not only attains his purpose most effectively but also does it at least cost, *ceteris paribus.* Now, it is up to the speaker himself to determine what counts as a cost and what may be disregarded. In our culture, we don't count the vowels of our speech acts, but we do spare time of utterance in a way. For Malagasi speakers commitments should be spared. Since the more sincerely informative you are, the more commit-

ments you have undertaken to defend your beliefs, for the Malagasi speakers the less informative they are the better, everything else being equal. Thus, the case of the Malagasi speakers has appeared as a counter-example to Grice's conversational maxims because due attention has not been paid to problems of the cost. Such apparent counter-examples are explained away when both wings of the rationality principle, *viz.* "most effectively and at least cost", are taken into account.

I turn now to Grice's super-maxim of Quality — "Try to make your contribution one that is true."

Notice, first, that such a maxim can be viewed from two different standpoints, i.e. from within the institution of assertion or from the outside, so to speak.

Within the institution of assertion such a norm of Quality is directly related to the specification of the constitutive purpose of assertion. The nature of the relation between the two depends on one's views of the point of assertion. If the characteristic feature of sentences uttered with assertoric force is that they are uttered with the intention of uttering only true ones, then the norm of Quality tells us that when we assert we have to pursue the purposes of assertion.

According to a different view of assertion, such a speech act is intended to be counted as an undertaking to the effect that a certain proposition represents an actual state of affairs. But a *sincere* undertaking to the effect that a proposition is true, as opposed to a *pretended* undertaking to the same effect, would be prudentially impossible in case the speaker knows, or even just believes, the proposition to be false. The norm of Quality is, under such a view of assertion, an instance of the more general norm that one should not make oneself responsible for what he knows he cannot be responsible for.

Given a constitutive system of rules, which defines a sphere of activity, be it linguistic or not, there might prevail different standards of activity. If the rules leave room for pretentious behaviour, which is the case in many linguistic and non-linguistic cases but not in some rituals, different standards of activity suggest themselves. According to one standard, pretentious behaviour should

be avoided. According to a second one, pretensions are required, whenever possible. The third standard leaves the relations between action and sincerity in a way irregular, there being no accepted convention as to whether an activity which seems to be governed by the rules is sincere or pretended. When assertion is under consideration the possibilities would be what David Lewis called[11] the convention of truthfulness, and systematic untruthfulness, and, perhaps, no convention with respect to truthfulness is also a possibility. Without going into detail, I assume that the standard of assertoric speech acts is sincerity rather than pretension. (I believe David Lewis has shown that to be the case).

Notice the difference between truth being the constitutive target of assertion and truthfulness being a conventional feature of speech acts of assertion.

On the background of the convention of truthfulness, the super-maxim of Quality should be considered to be an instance of the more general principle — "For attaining your ends, try to put the means at your disposal to their standard use, *ceteris paribus.*" Could the latter principle be justified on grounds of general rationality principles ?

I am not sure I have a general answer to that question, but perhaps a partial one will suffice. If a standard under consideration is conventional, then we may draw on the nature of convention for the justification of its observance. Since the maxim of Quality is, as we have seen, related to a convention of truthfulness, or more generally, to a convention of sincerity, the case of conventional standards seems to be of interest for our purposes.

To make a long story short : a regularity in the behaviour of some persons, when they are agents in recurrent situations of the same type, is a convention, only if uniform conformity to the regularity is a coordination equilibrium, i.e. a combination in which no one would have been better off had any one agent alone acted otherwise, either himself or someone else. A rational agent, interested in solving a coordination problem of a population to which he belongs, would opt for an *optimal* solution, and a convention is just such a solution of a coordination problem.

The super-maxim of Quality, viewed as a special case of a convention of sincerity, is thus derivable from rationality principles.

We turn now to the maxim of relation, *viz.* "Be relevant".

The notion of relevance is not a magic key, but rather a Gordian knot. In the absence of a conceptual sword which, with one bold stroke, would solve the perplexing problems of relevance, we have to look for relevance principles of lesser generality. The leading intuition seems to be that speech acts in a conversation should be fitted with each other, if not as well as pieces of a jigsaw puzzle, at least as well as cars in a very crowded street of an average town.

Such relevance maxims are instances of a more general principle, *viz.* "When you put your means to use for attaining a given desired end, try to utilize processes, actions or states which are occurring anyway in the context of your action, *ceteris paribus.*" No doubt, this ia a corollary of the rationality principle of effective means, in particular, of its "at least cost" clause.

Similar arguments will show that Grice's tailoring maxim — "facilitate in your form of expression the appropriate reply" — is a corollary of a similar relevance principle following from the general rationality principle.

For some time I have entertained the idea of using an additional relevance principle - "Prefer using your means in a manner which is likely to help others attaining their ends over other uses of your means, everything else being equal"[1][2] — but I am not sure anymore that such a principle can be derived from the general rationality principle without some disguised resort to required cooperation.

The cooperative principle itself is problematic mainly because it does not specify the nature of cooperation under consideration. Your contribution to a conversation should be as required "by the accepted purpose or direction of the talk-exchange in which you are engaged". What are those accepted purpose or direction of the conversation ? If the cooperative principle rests on the assumption that in all stages of any conversation it is always possible to identity its accepted pourpose or direction, then the cooperative principle is interestingly strong, grounding some maxims and super-maxims, but at the same time clearly wrong. One may use Socrates' conver-

sation with Meno's slave-boy as an example of a conversation which does not require an *accepted* purpose or direction. The conversation goes on, though Socrates and the slave-boy do not share conversational purposes or directions.

On the other hand, if what the cooperative principle requires is just a vague, general aim which involves a certain extent of cooperation, then the cooperative principle is perhaps true, but then it is too weak to sustain the conversational maxims.

If I am right, then no harm is done by the suggested circumvention of the cooperative principle, since the conversational maxims are derivable from a general rationality principle which we have put at the basis of the suggested form of the theory of implicature. Every conversational implicature which can be shown by Grice's theory to be carried by some speech act on a particular occasion, can be shown by the theory we have suggested to be similarly carried. The difference between the two forms of the theory of implicature will be reflected in the standard form of deriving a conversational implicature. Whereas a Gricean derivation rests on the assumption that there is no reason to suppose that the speaker is not observing the maxims, or at least the cooperative principle, we have suggested a derivation which rests on what we have called "the rationalization principle", *viz.* that the ends and beliefs of a speaker, in a context of utterance, supply justification of his behaviour, or put differently, that there is no reason to assume that the speaker is not a rational agent.

An objection I have heard to the suggested direct derivation of the maxims from a rationality principle is that it might blur the distinction between trivial and dramatic implicatures. In the non-dramatic case no maxim seems to be blatantly flouted. Thus, an appropriate utterance of the sentence "I have just read an interesting book" conversationally implicates that the speaker holds it true that not all the books in the world are necessarily interesting. This is clearly seen when we explain the oddity of sentences such as "I met a mortal philosopher" and the like. In the dramatic cases of implicating, the speaker seems to have blatantly fail to fulfil a maxim. Grice's example of metaphor is dramatic, since utterance of sentences such as "You are the cream in my coffee" characteristically involve categorial falsity.

I admit that derivations of conversational implicatures directly from a rationality principle of much generality blunt the distinction between conversational implicatures of two types. In cases of one type our attention is drawn to a conversational implicature by a maxim, a corollary of the rationality principle, having been apparently flouted. In cases of another type the implicature has to be worked out, on the assumption that the speaker is a rational one. But it seems that this distinction cuts no ice anyway. Actually, the non-dramatic case of the "interesting book" or the "mortal philosopher" conceals an underlying, apparent failure to fulfil some corollary of the rationality principle : the use of the adjective should be justified by the speaker's ends and beliefs at the context of utterance and this cannot be done unless we ascribe to the speaker a belief concerning the particular need or the general need to say of a certain book that it is interesting or a certain philosopher that he or she is mortal. Accordingly, the distinction made is not between what involves some dramatic traits and what does not, but between cases of manifest drama and cases of, say, undercurrent drama.

There are some additional differences between Grice's theory of implicature and the version I have suggested, but I cannot go into that now[13].

I would like to turn to a brief presentation of what seems to be an interesting application of my version of the theory of implicature.

In his 1957 paper on meaning[14], Grice himself gave a picture as a non-linguistic example of what has meaning in the nonnatural sense, and it seems that much can be learned both about paintings and about assertions from a thorough comparison of the ways they carry meaning. Presently, I would like to mention a few examples of artistic counterparts of conversational implicatures.

Many pieces of art call for explanation in terms of rational activity, intentions and means employed for expressing them. No wonder that for many years people were trying to find out what is the subject of certain paintings of, say, Titian. To take the trouble to look for the subject in that case does not seem to be essentially different from what happens in the biblical story in the book of Daniel, where King Belshazzar asked his conjurers to show him the "interpretation" of what the fingers of a human hand had marked

upon the plaster of the wall. In both cases there is an effort to attain understanding by reconstruction of ends and of uses of means.

The title of a painting points to the expressive target, while the different properties of the painting are contributions to the general effort of the artist to reach that target in his expressive act. There is no doubt in an interpreter's mind, that in a painting such as Gauguin's "Where do we come from ? Who are we ? Where do we go ?" separate details call for special explanation.

Notice that not everything a painting has to tell is directly and openly expressed. In Carpaccio's painting of St. Hieronymus in his study, there is one detail, pregnant with meaning but not immediately detected : Why is his right hand palm at the focus of perspective ?

We take a painting to be a product of a rational agent. Accordingly, we assume that no major detail of a painting is superfluous. Notice, for example, the way we use the seeming superfluity of the soldier on the right side of Manet's "The execution of Emperor Maximilian" for drawing an implicature concerning the whole painting. Similarly, we would not regard Mondrian's tree paintings as less informative than required. I think these observations are related to maxims of Quantity.

.Turning to what may be related to the maxim of Quality, let me mention just the case of a famous painting — "Tobias and the angel" — by one of Veroccio's pupils. By noticing certain discrepancies between what is depicted in that painting and the biblical story of Tobias and archangel Raphael, E. Gombrich[15] has been able to show that the figure of Tobias carries an implicated role in that painting.

For a glance at what seems to be related to a maxim of Relation think about any of those paintings which call for the viewer's walking along them. They put to an interesting use a feature of the context not commonly exploited when paintings rather than pieces of sculpture are created, *viz.* that in museums, people walk around.

A final example, one which might be related to maxims of Manner, is the way old Egyptian artists used for drawing human bodies. Nobody can really pose for an artist that way and there is

no reason to assume that the ancient Egyptians were unaware of it. The explanation rests on rendering an Egyptian drawing of a human body a drawing of a cluster of parts of a human body, each of which has to be represented in the clearest way possible.

I would like to conclude the paper by showing the relation between the suggested version of the theory of conversational implicatures and another ingredient of a Gricean theory of inference, *viz.* conventional implicature.

In his "Further Notes on Logic and Conversation" Grice reformulates in outline his position, saying that for a large class of utterances, the total signification of an utterance may be regarded as divisible into what is said, what is conventionally implicated, and what is nonconventionally implicated. It seems worthwhile to look at this distinction on the background of another one, that of the class of commitments a speaker imposes on himself upon happily performing a speech act. The division I would like to suggest for those commitments is based not on differences of content or form, but rather on the different possible grounds they have in the total system of rules, or systems of rules, operating in the context of utterance.

To every speech act we ascribe a force and a radical, or a propositional part. What governs the force is a constitutive system of rules, which defines the required end of the speech act, the means allowed to be used for serving that end, the constitutive product of the act, when happily performed, and some additional felicity conditions. A speaker performs a speech act of such a force only if he is committed to observe, at the context of utterance, all these rules. He is completely on a par with a player of a game, who is committed to following the regulations of the game, when he plays it.

A famous example of such a commitment is the one related to Moore's paradox. When I assert that the book is important I am thereby committed to its being the case that I believe the book to be important. However, such commitments are related neither to conversational implicatures nor to conventional ones. They are part of my general undertaking to play by the rules, and thus neither said nor implicated. This is also on a par with what happens when games are played. The player of Chess, when moving one of his pieces

according to the regulations of the game, neither says that he observes all the regulations nor suggests that he observes them; he simply plays by them.

Another system of rules governs the radical of a speech act, i.e. that part of it which bears truth values at possible states of affairs and possible contexts of utterance. Radicals are governed by truth conditions of different grades. Let me mention just the notion of semantic presupposition which may be taken to specify a grade of truth-conditions.

Now, the use of a radical, within a speech act of one force or another, commits the speaker not only to beliefs induced by the force of the speech act but also to ones induced by parts of the radical — words, such as "but" or "big", or structures, such as pseudo-cleft and the like. Notice that these commitments are grounded on another system of rules, the one which determines the meaning of words and the contribution of syntactic structures to meanings of whole phrases. Although on the present view, conventional implicatures are preconditions of use of radicals, they are not to be confused with pragmatic presuppositions. The main point is that pragmatic presuppositions, under one definition of the term, are already part of the common ground at the time of the utterance, whereas the existence, for example, of a contrast between the two parts of a "but"-conjunction is introduced into the conversation rather than assumed to be a given part of the common ground.

When we combine, in a certain way, the rules governing the force of a speech act, and the rules governing its radical, we are in a position of specifying what is said (in the restricted sense of the term). The nature of the function depends, indeed, on the force of the speech act.

Finally, additional systems of rules may be introduced. A person may play Chess right but very badly. When we are interested in well playing, we are using rationality considerations of a kind. When we draw conversational implicatures, we use corollaries of rationality principles, as has been shown earlier. Indeed, additional systems of rules may be introduced for regulating speech activity and by assuming that the speaker follows them nonconventional

implicatures of additional types may be derived, in a way which is similar to that we used for drawing consequences from rationality principles.

Tel-Aviv University

NOTES

[1] "Pragmatics and Presupposition", *An integrated theory of Linguistic Ability*, T. G. Bever, J. J. Katz and D.T. Langendoen, eds., Crowell, New York 1976, p. 405.

[2] "What is a Theory of Use ?", *Journal of Pragmatics* 1 (1977), pp. 105–120.

[3] *Foundations in Sociolinguistics*, Tavistock, London, 1974, p. 21.

[4] See my "Minimal Speakers, Necessary Speech Acts", *A Festschrift for Native Speaker*, F. Coulmas, ed., Mouton, The Hague 1981, pp. 53—101.

[5] *Frege, Philosophy of Language*, Duckworth, London 1973, pp. 362—3.

[6] Oxford University Press, Oxford 1939.

[7] *The Logic of Grammar*, D. Davidson and G. Harman, eds., Dickenson, Encino and Belmont 1975, pp. 64—75.

[8] "On the Universality of Conversational Implicatures", *Language in Society* 5 (1976), pp. 67–80.

[9] *Pragmatics*, Academic Press, New York 1979, pp. 54–55.

[10] "Logical Form and Implicature", *An Integrated Theory of Linguistic Ability* (see note 1), p. 340, note 29.

[11] *Convention*, Harvard University Press, Cambridge 1969.

[12] See my "conversational Maxims and Rationality", *Language in Focus*, Asa Kasher, ed., Reidel, Dordrecht 1976, pp. 197—216.

[13] See my paper mentioned in note 2.

[14] See, e.g., *Philosophical Logic*, P.F. Strawson, ed., Oxford University Press, Oxford 1967, pp. 39–48.

[15] *Symbolic Images*, Phaidon, London 1975, pp. 26–30.