2 Gricean Implicature

As we saw in Chapter 1, the logical, semantic meaning of *and* is purely truth-functional: If it conjoins two clauses, and each of those clauses is true in the world under discussion, then the conjoined sentence is also true. Thus, consider (21):

(21) Jane served watercress sandwiches and animal crackers as hors d'oeuvres. *She brought them into the living room on a cut-glass serving tray and set them down before Konrad and me . . .* (Boyle 1974)

The sentence of interest is italicized. On encountering this sentence, the reader will draw the inference that Jane brought the hors d'oeuvres into the living room first, and set them down afterward – leading to the further inference that the narrator and Konrad must be in the living room. Indeed, one would get a very different sense of what was happening if the conjuncts were presented in the opposite order:

(22) Jane served watercress sandwiches and animal crackers as hors d'oeuvres. *She set them down before Konrad and me and brought them into the living room on a cut-glass serving tray . . .*

Here the inference of bringing-before-setting is absent; instead the reader is likely to draw the inference that Jane set the hors d'oeuvres down before the narrator and Konrad and then brought them – presumably a different subset of them – into the living room, leading to the further inference that the narrator and Konrad are not in the living room. (For some speakers, *brought* indicates directionality toward the speaker, rendering (22) infelicitous on those grounds; this problem can be resolved by replacing *brought* with *took* in both examples.) Notice, however, that according to the truth-conditional semantic analysis presented in Chapter 1, both (21) and (22) are true under exactly the same set of circumstances – that is, just so long as both the setting-down and bringing-in

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events happened. It doesn't matter what order they happened in; (21) is equally true if Jane set the hors d'oeuvres down in front of the narrator and Konrad before bringing them into the living room. That is, the ordering is not part of what is **said** in (21). Where, then, does the inference of ordering come from?

This is the question that philosopher H.P. Grice set out to answer in his famous paper "Logic and Conversation" (Grice 1975). He observed that what we mean when we use a word like *and* in conversation generally goes well beyond its truth-conditional meaning of logical conjunction. Interestingly, this additional meaning is not necessarily constant; *and*, for example, can mean different things in different contexts:

(23) a. Bill opened a book and began to read.
b. Yesterday I ate three meals and took two naps.
c. Jennifer forgot to study for her algebra exam and got a D.

In (23a), we see the same inference of ordering that we saw above in (21); here, the addressee infers that Bill first opened the book and then began to read. This inference is absent, however, in (23b); here, there is no suggestion that the speaker's three meals were prior to the two naps. Finally, in (23c), there is an inference of causation in addition to the inference of ordering: Not only did Jennifer forget to study prior to getting a D, but the addressee also infers that her forgetting to study was the cause of the low grade (and indeed, the fact that the D was received on the algebra test, and not on some other assignment, is a secondary inference based on the inference of causation between the lack of studying and the low grade). These inferences, therefore, cannot be attributed to anything inherent in the word *and* alone; context affects its interpretation. Grice developed a way of addressing such contextual effects on interpretation. What Grice did was to identify a set of rules that interlocutors generally follow, and expect each other to follow, in conversation, and without which conversation would be impossible. These rules, in turn, are themselves various aspects of a single overarching principle, which Grice termed the Cooperative Principle.

2.1 The Cooperative Principle

The basic idea behind the Cooperative Principle (CP) is that interlocutors, above all else, are attempting to be **cooperative** in conversation. Grice's formulation of the CP is rather more detailed:

> **The Cooperative Principle:** Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged. (Grice 1975: 45)

This boils down to an admonition to make your utterances appropriate to their conversational context – but again, since this is a descriptive rather than a prescriptive principle, what it really means is that interlocutors consistently **do** make their utterances appropriate in context. To do otherwise would be, in a word, uncooperative. Grice's fundamental insight was that conversation can work only because both people are trying to be cooperative – trying to make their contribution appropriate to the conversation at hand. Even when one might assume the participants are in fact being utterly uncooperative – say, in the course of a bitter argument, in which neither wants the other to gain any ground – they are in fact being conversationally cooperative: They stick to the topic (or at least relevant side topics – presenting other grievances, perhaps, but not abruptly mentioning irrelevant sports scores), they say interpretable things in a reasonably concise way, and they try to complete their thoughts while not giving distracting or irrelevant details. A truly uncooperative interlocutor would be almost impossible to have a successful argument with; such an individual would comment irrelevantly on the weather, or fail to respond at all, perhaps choosing to read the newspaper instead. In short, whether the conversation is a friendly or hostile one, it is only because the participants are trying to be cooperative that the conversation can proceed. Moreover, as we will see below, it is only because each assumes that the other is being cooperative that they stand a chance of being able to accurately interpret each other's comments.

The CP consists of four "maxims," each of which covers one aspect of linguistic interaction and describes what is expected of a cooperative speaker with respect to that maxim. The maxims, with rough paraphrases of their content, are:

1. The Maxim of Quantity: Say enough, but don't say too much.
2. The Maxim of Quality: Say only what you have reason to believe is true.
3. The Maxim of Relation: Say only what is relevant.
4. The Maxim of Manner: Be brief, clear, and unambiguous.

Each of these maxims is discussed in detail in the sections to follow, but this brief list will suffice to introduce the role that they play in human language.

The general line of reasoning the hearer undergoes is to implicitly ask, "What intention on the part of the speaker would allow this to count as a cooperative utterance?" The answer to that question suggests to the hearer what the speaker's probable intention was. There are four ways in which the speaker can behave with respect to the CP; the speaker can:

- **observe** the maxims,
- **violate** a maxim,
- **flout** a maxim, or
- **opt out** of the maxims.

To **observe** a maxim is to straightforwardly obey it – that is, to in fact say the right amount, to say only what you have evidence for, to be relevant, or to be brief, clear, and unambiguous (depending on the maxim in question). To **violate** a maxim is to fail to observe it, but to do so inconspicuously, with the assumption that your hearer won't realize that the maxim is being violated. A straightforward example of this is a lie: The speaker makes an utterance while knowing it to be false (that is, a violation of Quality), and assumes that the hearer won't know the difference. Violations of maxims are generally intended to mislead. To **flout** a maxim is also to violate it – but in this case the violation is so intentionally blatant that the hearer is expected to be aware of the violation. If, after taking an exam, I tell a friend *that exam was a breeze*, I clearly don't expect my friend to believe I intended my utterance to be taken as literal truth, since an exam and a (literal) breeze are two completely distinct things. Here, the hearer's line of reasoning is something like, "The speaker said something that blatantly violates the maxim of Quality; nonetheless, I must assume that they are trying to be cooperative. What meaning might they intend that would constitute cooperative behavior in this context?" In the case of *that exam was a breeze*, the assumption of overall cooperativity might lead the hearer to appeal to the maxim of Relation and realize that the speaker's intention was to attribute a relevant property of breezes (e.g., ease, pleasantness) to the exam. (Notice, however, that in many cases, including this one, the phrase has become idiomatic and the implicature no longer needs to be "worked out" each time the phrase is used.) Finally, to **opt out** of the maxims altogether is, in a sense, to refuse to play the game at all. If I'm trying to have an argument with my husband and he responds by opening the newspaper and beginning to read, he has opted out. Similarly, the Fifth Amendment gives a defendant a way of opting out; the option to plead the Fifth Amendment allows the defendant, in principle, to opt out of the interaction in the courtroom without being taken as intending any of the implicatures that might otherwise, under the maxim of Quantity, be associated with saying too little. (Nonetheless, someone who "pleads the Fifth" frequently does give rise to an inference of guilt in the minds of their hearers, precisely by virtue of having said too little.)

Each one of these ways of behaving has the potential to license an **inference** on the part of the hearer. Thus, when I utter (23a), *Bill opened a book and began to read*, I have licensed an inference on the part of the hearer to the effect that Bill opened the book before he began to read, due to my hearer's assumption that I am being as brief, clear, and unambiguous as possible (hence observing the maxim of Manner). To state things in the opposite order of their actual occurrence would violate the maxim by being unclear.

When a speaker's utterance licenses an inference of some proposition *p*, we say that the speaker has **implicated** *p*, and the content of *p* itself constitutes an **implicature**. It's important to note here a terminological asymmetry: Speakers implicate, whereas hearers infer. Another potential terminological confusion arises between the term **implicate** (and its related noun **implicature**) and the

term **imply** (with its related noun **implication**). Logical or semantic implication is truth-conditional: If *p* implies *q*, then anytime *p* is true, *q* must also be true. This is not the case with implicature: If by uttering *p* a speaker implicates *q*, it is entirely possible that *p* is true but *q* is nonetheless false. This is precisely what we saw in (21) above; the utterance of the sentence *She brought them into the living room on a cut-glass serving tray and set them down before Konrad and me* implicates, but does not logically imply, that she brought them (i.e., the hors d'oeuvres) in before she set them down. That is, *p* (*she brought them . . . and set them down . . .*) implicates, but does not imply, *q* (*she brought them before she set them down*). It is a defining property of implicatures that they do not affect the truth conditions of a sentence. Implicatures derived via the Cooperative Principle are called **conversational implicatures**. (Another type of implicature will be discussed in section 2.2.)

The next four sections will consider each maxim in turn, giving examples of ways in which these maxims can be observed, violated, or flouted in order to give rise to particular implicatures.

2.1.1 *The maxim of Quantity*

Grice's formulation of the maxim of Quantity has two parts:

- Make your contribution as informative as is required for the current purposes of the exchange.
- Do not make your contribution more informative than is required.

The first submaxim has received by far the most attention in the pragmatics literature. Consider example (24):

(24) None of the Victorian mothers – and most of the mothers were Victorian – had any idea how casually their daughters were accustomed to be kissed. (Fitzgerald 1920)

Upon encountering the clause *most of the mothers were Victorian*, the reader is expected to draw the inference that, as far as the speaker knows, not all of the mothers were Victorian. But where does this inference come from? Notice that even if all the mothers were Victorian, the utterance *most of the mothers were Victorian* would be true. So why does saying *most* lead the reader to believe "not all?"

The first submaxim of Quantity says that one's contribution should be as informative as is required for the current purposes of the exchange. If the speaker knew for a fact that all of the mothers were Victorian, he could have said precisely that, with no additional effort expended; such an utterance would have been more informative than the one actually uttered. Under almost any assumption

that makes (25a) relevant, the equally brief variant in (25b) would be just as relevant and more informative (assuming it is true):

(25) a. Most of the mothers were Victorian.
b. All of the mothers were Victorian.

The only exception is the case in which it is not true that all of the mothers were Victorian; in this case, (25b) is still more informative than (25a), but its known falsity would constitute a violation of the maxim of Quality, hence its utterance would be infelicitous – that is, pragmatically inappropriate. Since the truth of (25b) would render the use of (25a) infelicitous (on the grounds that it is insufficiently informative), and the falsity of (25b) would render the use of (25a) felicitous (on the grounds that (25b) isn't a felicitous option), the only way for the addressee to preserve the presumption of the speaker's cooperativity in uttering (25a) is to infer that (25b) must be false – that is, that not all of the mothers were Victorian.

This is what is known as a **scalar implicature**. Scalar implicatures are based on the first submaxim of Quantity. In general, the utterance of a given value on a scale will implicate that, as far as the speaker knows, no higher value applies (since, if it did, it would have been uncooperative of the speaker not to utter that higher value). Scalar implicatures are probably the most-studied class of conversational implicature. Many types of scale give rise to scalar implicatures (see Hirschberg 1991 for a detailed account):

(26) a. It's cool outside. => It's not freezing outside.
b. I ate most of the pizza. => I didn't eat all of the pizza.
c. Half of the kids played on the swings. => Not all of the kids played on the swings.
d. I had two bagels for breakfast. => I didn't have three bagels for breakfast.
e. I understand some of the problems. => I don't understand all of the problems.

In each case, the utterance of the first sentence will in general implicate the second; that is, uttering *It's cool outside* will in general implicate *It's not freezing outside*. That is to say, the selection of a weaker value (e.g., *cool*) implicates that (as far as the speaker knows) the stronger value (e.g., *freezing*) does not hold. Notice, however, that in each case the selection of the stronger value (e.g., *it's freezing outside*) would entail the weaker value (e.g. *it's cool outside*). So consider the very small scale below:

all
|
most
|
some

For any two values in this scale, the higher value entails the lower value (that is – loosely speaking – *all* entails *most*, *most* entails *some*, and *all* entails *some*), but a speaker's choice to use a lower value will generally implicate that the higher value does not hold; thus, the use of either *I ate some of the pizza* or *I ate most of the pizza* will implicate *I didn't eat all of the pizza*, and *I ate some of the pizza* will likewise implicate *I didn't eat most of the pizza*. Scales like this one, which are defined by an entailment relation in which higher values consistently entail lower values, are known as **Horn scales** (after Horn 1972). The cardinal numbers constitute a Horn scale, since to say *I had two bagels for breakfast* entails that I had one bagel and implicates that I did not have three (or four, or five).

Scalar implicatures are not the only type of implicature that can be licensed by the first submaxim of Quantity. Grice gives the example of a student who asks a professor for a letter of recommendation. Suppose I am asked to write a letter of recommendation for Sally Smith, and my letter is as follows:

> Dear X:
> I am writing in support of Sally Smith's application for a job in your department. Ms. Smith was a student of mine for three years, and I can tell you that she has excellent penmanship and was always on time for class.
>
> Sincerely,
> Betty J. Birner

Would Ms. Smith be likely to get the job? Of course not – but why not? I have said only positive, relevant, true things about her, and I've been clear, concise, and unambiguous. The problem here is obviously that I haven't said enough. The principle is very much the same as the principle in scalar implicature: If I had three bagels for breakfast, then (assuming the number of bagels I had for breakfast is at all relevant) I should say so; if I say only *I had two bagels for breakfast*, then my hearer is licensed to infer that I didn't have three. Similarly, if Sally Smith is intelligent, insightful, and reliable, then (assuming it's relevant, as it certainly would be for a letter of recommendation) I should say so in my letter; if I don't, then my reader is licensed to infer that she has none of these properties.

The inference from *I had two bagels for breakfast* to "I didn't have three bagels for breakfast" is a straightforward instance of an implicature resulting from the speaker's observance of the maxim of Quantity. The so-called "Gricean letter of recommendation" above, on the other hand, is an instance of an implicature resulting from the flouting of a maxim. Here, the violation of the maxim is so blatant that there is very little chance of the reader failing to notice it and to draw the appropriate inference (which is that Sally Smith is probably not a very good candidate for the job). The flouting of the maxim allows the writer to implicate what they prefer not to state explicitly. A person writing a letter of recommendation might, on the other hand, choose to simply quietly violate the maxim of Quantity by saying too little, but in such a way that the reader is not expected to notice the violation. Suppose, for example, that Ms. Smith was

intelligent, insightful, and organized, but had stolen a great deal of money from my department. If my letter mentions her intellect, insight, and organization, but fails to mention her dishonesty, I will have violated Quantity by failing to say enough – and because this omission is unlikely to be noticed by the reader (who, after all, has no way of knowing about the dishonesty), the reader will draw no inference and will be misled into believing that Ms. Smith is a suitable candidate for a job.

Consider, for example, the following excerpt, in which the author is describing the label on a carton of "organic" milk:

(27) This particular dairy's label had a lot to say about the bovine lifestyle: Its Holsteins are provided with "an appropriate environment, including shelter and a comfortable resting area, . . . sufficient space, proper facilities and the company of their own kind." All this sounded pretty great, until I read the story of another dairy selling raw milk – *completely* unprocessed – whose "cows graze green pastures all year long." Which made me wonder whether the first dairy's idea of an appropriate environment for a cow included, as I had simply presumed, a pasture. All of a sudden the absence from their story of that word seemed weirdly conspicuous. As the literary critics would say, the writer seemed to be eliding the whole notion of cows and grass. (Pollan 2006)

Here, the reader comes to suspect that the writer has purposely violated the maxim of Quantity – leaving out any mention of whether the cows are allowed to graze on pastures – in order to leave the reader with the impression that they are. The information would clearly be relevant, but in order to obey the maxim of Quality (by not saying something false), they are forced instead to either admit the absence of pastures in their cows' lives or simply omit this information and thus quietly violate the maxim of Quantity. Most readers of the label would never notice the difference and would thus be misled into assuming the cows have a more pleasant life than they probably do; the reader in (27) notices the omission only in comparison with a label from another brand.

The second submaxim of Quantity is less commonly studied; this submaxim tells us not to say more than is necessary. When the Queen in *Hamlet* says "the lady doth protest too much," this is the submaxim she is implicitly making reference to: The lady in question is violating the maxim of Quantity by "protesting" (in Shakespearean English, vowing or declaring) more than is necessary – that is, by saying too much – and the extent of the protesting suggests to the hearer that the protest is not to be believed. As we will see in the next chapter, many researchers collapse the second submaxim of Quantity with the maxim of Relation, on the grounds that to say too much is essentially to say what is not relevant, and that conversely to say what is not relevant is to say too much.

The non-truth-conditional status of Quantity implicatures has been supported by no less an authority than the United States Supreme Court, in a perjury case

described in Solan and Tiersma (2005). The question at hand was whether Samuel Bronston, president of a movie production company which had petitioned for bankruptcy, had committed perjury at the bankruptcy hearing. Here is the relevant exchange (Solan and Tiersma 2005: 213):

(28) Q. Do you have any bank accounts in Swiss banks, Mr. Bronston?
A. No, sir.
Q. Have you ever?
A. The company had an account there for about six months, in Zurich.

It turns out that Mr. Bronston had had a personal account in a Swiss bank for five years, with a great deal of money in it. Thus, although he has spoken the truth (the company did have the account he describes), he has not said enough. He was initially found to have perjured himself, and the appeals court agreed; however, the US Supreme Court overturned the conviction, on the grounds that Mr. Bronston had spoken the literal truth and that it was the lawyer's responsibility to ensure that he provided the information specifically asked for (i.e., whether he himself had ever had a Swiss bank account).

The issue is trickier than it might appear, however. Imagine that a defendant says he has two children, when in fact he has three. He has spoken the literal truth – he does have two children, as well as another one – but is this sufficient to get him off the hook for perjury? Suppose he has been explicitly asked *How many children do you have?* And then suppose he responds with *I have two children*. Now would you say he has committed perjury? Or imagine that Mr. Bronston had been asked how much money he had in his bank account and he responded *5000 dollars*, when in fact the account contained 5,000,000 dollars. Would he be absolved of perjury charges on the grounds that what he said was literally true, and that the lawyer should have followed up with *Okay – and is there any more besides that?* One can imagine a fairly comical scene in which the defendant lists individual dollar amounts sequentially, with the beleaguered lawyer required to continually respond with *any more?* until the actual total is reached.

But how can we distinguish between these two situations – the actual case, in which the Supreme Court has found that it is the literal meaning and not the Quantity implicature that matters (thus, if the utterance is true, it's not perjury), and the scenario in which that same standard would allow defendants to assert that they have 5000 dollars in the bank when in fact they have those 5000 plus another 4,995,000? Solan and Tiersma argue that the nature of the question is important, and also whether the answer is relevant – that is, whether it is responsive to the question asked. In the case of Mr. Bronston, the lawyer should have noticed that the answer provided did not address the question asked. In the hypothetical case of the 5,000,000 dollars, the answer (*5000 dollars*) does respond to the question asked, and so there would be no grounds for the lawyer

to realize that the answer is incomplete; hence such a case would be liable to prosecution for perjury. The issue is an important one, and speaks to the core of what "truth" is: Does it involve only the observance or violation of the maxim of Quality, or is it broader? When a witness swears to tell "the whole truth," does that explicitly bring the maxim of Quantity into the legal arena? Here is a case in which the boundary between semantics and pragmatics – between what is literally said and what is merely implicated – is seen to be important in the real world.

2.1.2 The maxim of Quality

Grice's formulation of the maxim of Quality is composed of the following two submaxims:

- Do not say what you believe to be false.
- Do not say that for which you lack adequate evidence.

This maxim is sometimes paraphrased as "say what is true" or something along those lines, but Grice realized that of course one cannot always (or perhaps ever) be certain of what is true; the best one can do is to say only what one **believes** to be true. Why not then phrase the first submaxim as simply "say what you believe to be true" (and similarly for the second)? One reason is that we don't say **everything** we believe to be true; that would require an infinite amount of time. In observance of the other maxims, we say only those things that are not only true but also relevant, and we avoid saying too much, even if it happens to be true. The maxim of Quality, then, does not state that if the speaker believes something to be true, they must say it, but rather that if the speaker believes something to be false, they must not say it. That is, this maxim guarantees the quality (i.e., the reliability) of what has been said, while telling us nothing about what has not been said. (Compare this with the maxim of Quantity, which does in fact tell the addressee something about what has not been said.)

Inferences based on observance of the maxim of Quality are hardly noticed; these are simply inferences that what the speaker has said is in fact true. When I begin a lecture by saying *Today I'm going to talk about the Cooperative Principle*, my students straightforwardly infer the truth of that utterance – and thus that I am indeed going to be talking about the CP. The inference here is simply that the information encoded in the utterance is reliable, since the maxim leads a hearer to expect that speakers believe what they say and have adequate evidence for it.

More interesting are the cases in which the maxim of Quality is either flouted or quietly violated. Quiet violations are what we usually think of when we think of a lie. We generally think of a lie as a case of a speaker saying something false.

However, the issue is slightly more complicated than this. Consider the following cases:

(29) a. A bookstore owner tells a customer that a certain book will arrive in the shop on January 1. She believes this is so when she says it, because the publisher has assured her of it. In fact, however, the book does not arrive until January 8. Has she lied?

b. This same bookstore owner, with the same belief (and evidence) that the book will arrive on January 1, tells the customer that it won't arrive until January 8 (because she wants to be able to snap up all the copies for family members). As it happens, a delay in shipping results in the book not arriving until January 8. Has she lied?

c. The bookstore owner has no idea when the book is going to arrive, because the publisher hasn't been able to give her an estimate. Nonetheless, in a fit of pique caused by overwork, she tells a customer that it will arrive on January 1, simply to get him to stop asking her about it. As it happens, the book arrives on January 1. Has she lied? What if the book doesn't arrive until January 8?

d. The bookstore owner has been told by the publisher that the book will arrive on January 1, but she's a pessimist and doesn't believe it. So just to be on the safe side, she tells the customer it will arrive on January 8. Has she lied? And does the answer depend on the book's actual date of arrival?

Here we can see that to lie isn't necessarily to simply say something that is false. A prototypical lie satisfies at least three conditions (Coleman and Kay 1981):

(30) a. It is in fact false.

b. The speaker intends it to be false.

c. The speaker intends to deceive the hearer by uttering it.

If one or more of these conditions is missing, as in the cases in (29), there might reasonably be disagreement over whether the speaker has lied. Notice that by not including a directive such as "do not say what is false" in the maxim of Quality, Grice implicitly acknowledges that the speaker can be held responsible only for (30b), not (30a). Nonetheless, people will differ as to whether (29a) and (29b) are lies, despite the fact that the only one of the conditions in (30) that is out of sync with the others is (a). That is, in (29a) the bookstore owner fails to satisfy (30b–c), but condition (a) holds. Is the mere fact of the falsity of the utterance sufficient to render it a lie, in spite of the speaker's belief in its truth and lack of intent to deceive? And in (29b), is the ultimate truth of the utterance

sufficient to prevent it from counting as a lie despite the speaker's belief in its falsity, and intent to deceive?

One might turn the question around and ask whether condition (c), the intent to deceive, is sufficient to make an utterance a lie even if neither of the other conditions are satisfied. Take for example Bill Clinton's famous defense that "It depends upon what the meaning of the word *is* is." He was being asked about a point in a deposition in which his lawyer, Robert Bennett, had stated that "there is absolutely no sex of any kind" between Clinton and Monica Lewinsky. When Clinton was later accused of effectively having made a false statement by failing to refute Bennett's statement, he defended himself by appealing to the meaning of the word *is*, arguing, "If it means is, and never has been, that's one thing. If it means, there is none, that was a completely true statement." In a literal sense, of course, he's right; if the word *is* indicates the present tense, then the statement *there is absolutely no sex* is true if there is no sexual relationship in progress at the time the statement is made. In that sense, then, the conditions for a lie presented in (30a–b) have not been satisfied: The statement is not false, and the speaker doesn't believe it to be false. However, condition (30c) is satisfied: Clinton and Bennett clearly intend to mislead their hearers. Does this intention alone justify the conclusion that the statement is a lie? We discussed above, in the Bronston perjury case, the subtle shift from the lawyer's question about Bronston's bank account to Bronston's answer about his company's bank account. Bennett, on the other hand, makes a subtle shift from speaking about a past relationship to speaking about a present relationship.

Once again, the question of the relationship between semantics and pragmatics is seen to have important ramifications – in this case, in determining exactly what properties must hold of an utterance in order for it to count as a lie. And these properties, in turn, bring us back to the maxim of Quality and its relationship to the definition of a lie: Should a lie be defined as any failure to observe Quality – that is, any case in which a speaker utters what they believe to be false, or what they lack evidence for? Or should the status of the proposition as actually true or false, and/or the presence or absence of an intent to mislead, be factored into this question? Perhaps the word *lie* is best defined as a fuzzy set, with the prototype having all of the characteristics listed in (30), and with more peripheral members lacking one or more of these properties (Coleman and Kay 1981). But to the extent that we base our judgment of truth on the beliefs and intentions of the speaker, and not simply on the extent to which a sentence does or does not correctly describe the world, we are allowing truth to become a partly pragmatic and not a purely semantic issue.

We have seen that a lie can result from a quiet violation of the maxim of Quality. It is also possible, however, to flout the maxim – that is, to make an utterance that is so obviously contrary to any plausible belief we might hold that the literal meaning of the utterance cannot reasonably be considered to be what is intended. Such is frequently true in the case of non-literal language, such as irony or metaphor:

(31) a. If you can do most of your drinking within the first hour of the party and quickly pass out, you will have regained consciousness and be well on your way to recovery while others are still gadding about. By the time the Rose Bowl game comes on, your eyeballs will have come out from behind your nose.
b. Maybe it's time to wave the white flag. The age of supersensitivity is crushing me.
c. The truth was that he planned on lights very early. But when World War II began, materials necessary for lights were needed in the war effort. So he shelved plans for the lights, and when the war ended, he didn't bother to revive them.
d. By 1947, the year Robinson broke in, the Cubs were already pathetic doormats.
(Royko 1999)

In (31a), it's blatantly obvious that the author, Chicago columnist Mike Royko, doesn't believe anyone's eyeballs will literally move out from behind their nose. In (31b), he doesn't expect to wave an actual white flag, any more than he believes the owner of the Cubs in (31c) put an actual set of plans onto an actual shelf, or that the Cubs in (31d) turned into literal doormats. In each case, Royko is flouting the maxim of Quality – saying something so blatantly false that he must have meant something other than what he has literally said. The job of the reader is to infer that intended meaning.

The intended meaning is the implicature, and precisely how the reader comes to infer the implicature that was intended is a difficult question. Nonetheless, Grice takes it as one of the principal properties of an implicature that it is **calculable**; that is, it must be possible to calculate the intended meaning given the textual and situational context, the maxims, and the actual utterance. In (31a), for example, the context is one in which the reader is being told how best to speed recovery from a hangover. Upon encountering the phrase *your eyeballs will have come out from behind your nose*, the reader presumably first notes that this is a physical impossibility, and that Royko no doubt knows it is a physical impossibility. Therefore, he must have intended something else – something, presumably, that shares some properties with what it would be like for one's eyeballs to come out from behind one's nose. Given a hangover's well-known reputation for inducing a nasty headache, and the fact that having one's eyes behind one's nose would presumably also induce a nasty headache, one might infer that the two feelings are being equated, and that the movement of the eyeballs out from this position can be taken as parallel with the lessening of a hangover's associated headache. Thus, the metaphor *your eyeballs will have come out from behind your nose* might be taken as implicating "your headache will have lessened."

Notice, however, that saying the implicature is calculable is not the same as saying that it is in fact calculated. In (31b), *wave the white flag* is a fairly

common way of conveying "surrender," which in turn is a metaphor for ceasing to struggle against something (in this case, supersensitivity). Clearly Royko does not intend to literally surrender to anybody, and even less so to wave a literal flag. But it's also not necessary for the reader to perform a lengthy series of calculations to work out the actual meaning, that Royko thinks it might be time to stop struggling against the age of supersensitivity; the phrase *wave the white flag*, with its origins in actual white flags being waved as a signal for surrender, has become relatively standard usage to convey this meaning. Nonetheless, the usage is based on a metaphor which in turn is based on a flouting of Quality. It is not necessary to actually reconstruct the path from literal to intended meaning each time this metaphor is used, but Grice would argue that there must be such a path, and that it must in principle be capable of being reconstructed.

In some cases the metaphor has become such a fixture of the language that its original metaphorical meaning is opaque even to the users; in these cases (such as in *become a fixture of* and *its meaning is opaque*), the reader is almost certainly not performing any kind of calculation or reconstruction based on a flouting of Quality, and upon first examination would likely even say the utterance was literally true. These are known as **dead metaphors**, on the grounds that they have so fully infiltrated the language that their metaphorical origin has been lost and their metaphoricity has in effect "died" (itself a metaphor, of course). Only when the metaphorical nature of the utterance is pointed out (that, for example, literal fixtures are concrete objects, or that literal opacity has to do with levels of light permeability) is the reader likely to – perhaps grudgingly – acknowledge the non-literal aspect of the dead metaphor – and indeed there is an interesting argument to be had regarding at what point the meaning of an utterance loses all of its metaphorical force and the expression in question takes on its previously non-literal meaning as part of its literal meaning. Which is to say, at what point does *fixture* come to literally mean "integral part" without regard to concreteness? At what point can it be said that the word *raise* has changed such that *he raised my spirits* can be considered to be literally, rather than only metaphorically, true? In a Gricean spirit, one might argue that this point has been reached when the interlocutors are no longer able to discern any path at all leading from the combination of context, maxims, and (previous) literal meaning to what both parties now take the expression to mean.

Floutings of Quality can also result in irony, hyperbole, sarcasm, and similar effects:

(32) a. It takes a real genius to comment like that on an ongoing lawsuit. (http://www.radaronline.com/exclusives/2008/06/one-of-the-many-reasons.php, last accessed October 6, 2008)
b. All the world loves a clown. (Song "Be a Clown")
c. Everybody Loves a Whiner. (headline, http://www.sfbaytimes.com/index.php?sec=article&article_id=5184, March 12, 2012)

In (32a), the writer expects the reader to recognize the blatant falsity of the literal statement being made; that is, it's generally known to be a bad idea to comment on an ongoing lawsuit, so anyone doing so is clearly not a genius. The statement is instead taken to be ironic, conveying that the person in question is not only not a genius, but is in fact quite the contrary. In (32b), the author is not taken to believe that literally everybody in the world loves a clown, but rather that most people do. Notice that if even that interpretation fails, as in (32c) – where even the interpretation "most people love whiners" is implausible – the reader will then move to an ironic or sarcastic interpretation.

2.1.3 *The maxim of Relation*

The maxim of Relation is sometimes called the maxim of Relevance, because it is composed of only the following two-word dictum:

- Be relevant.

The term "relation" is appropriate for this maxim because it has to do with the relationship between the current utterance and others preceding and following it, and more generally with the relationship between the current utterance and the entire context, both textual and situational – that is, both what is occurring in the discourse and the nature of the surroundings in which the discourse is taking place. What is meant by this maxim is that the current utterance must have something to do with the context; it must be related to what has come before it in the discourse and/or what is going on in the situation. Thus, if you and I are talking about the next presidential election and I suddenly exclaim, *There's a spider on your shoulder!*, I haven't violated the maxim of Relation; I have merely uttered something that is relevant to the situational context rather than something that is relevant to the discourse context.

Observance of the maxim of Relation allows us to track meaning through an extended discourse, as seen in (33):

(33) a. Three times Della counted it. One dollar and eighty-seven cents. And the next day would be Christmas.

There was clearly nothing to do but flop down on the shabby little couch and howl. (Henry 1969a)

b. Once upon a sunny morning a man who sat in a breakfast nook looked up from his scrambled eggs to see a white unicorn with a gold horn quietly cropping the roses in the garden. The man went up to the bedroom where his wife was still asleep and woke her. "There's a unicorn in the garden," he said. "Eating roses." She opened one unfriendly eye and looked at him. "The unicorn is a mythical beast," she said, and turned her back on him. (Thurber 1945a)

In (33a), it is the maxim of Relation that allows the reader to understand why Della is howling – and, in fact, to understand that her howls are howls of despair rather than, say, howls of physical pain. Having introduced a very small amount of money, one dollar and eighty-seven cents, the author next adds a sentence that on the face of it has nothing to do with money: *And the next day would be Christmas*. Because Relation assures us that the approach of Christmas must have something to do with the amount of money Della has, and because our world knowledge tells us that Christmas often involves the purchase of gifts for others, we can infer that this is the amount of money available to Della for the purchase of gifts. Our world knowledge will also tell us that even at the time the story was written, one dollar and eighty-seven cents was not enough to buy a nice gift. When, in the next sentence, Della flops down on the couch and howls (in a sentence that says nothing explicitly about either money or Christmas), we understand that, since this howling must be related to the prior context, Della must be expressing her feelings about having insufficient money to buy a nice gift. In this way, three utterances that on the face of it appear to address three different topics – money, Christmas, and howling – and which have no explicit shared content can nonetheless be inferred to be related, and this relation allows the reader to understand the writer's intended implicatures regarding, first, the relevance of the money to the season, and second, the reason for Della's howling.

A bit more subtly, in (33b), Relation helps the reader to understand the intended meaning of the wife's utterance. Here the topic has remained the same; the man mentions having seen a unicorn in the garden, and his wife asserts a property of unicorns. However, the import of her comment in this context goes beyond merely citing a property of unicorns. By saying *The unicorn is a mythical beast* in a context in which her husband claims to have seen a unicorn, she implicates that he could not have seen, and therefore did not see, a unicorn in the garden. This effect would have been lost if she had uttered some other random property of unicorns, of course – say, if she had responded with *The unicorn has a single horn*. Notice also that the falsity of the implicature would not render the literal proposition false: The wife could have said *The unicorn is a mythical beast, so having one in our garden is amazing; I can't wait to see it*. Thus, the implicature is not, strictly speaking, entailed by the expression uttered. The status of the unicorn as a mythical beast might make it far less likely that the man has seen one, but it does not render it logically impossible (for example, creatures from myths might turn out to exist in the real world after all). One can see this perhaps more clearly in (33a), where the narrative might continue with *She was howling with laughter, because this was precisely the amount it would cost to buy the few materials needed for the gag gift she planned to make for her husband*. In this case, the implicature will have been cancelled; hence it was not entailed by the explicit linguistic content. Admittedly this would make a far worse story, but linguistically it would be entirely acceptable. Thus, relevance is a pragmatic, rather than a semantic, requirement – an expectation about how cooperative interlocutors behave.

Floutings of Relation are cases in which the speaker utters something so obviously irrelevant that the addressee will immediately recognize its irrelevance – and also recognize that the irrelevance is so blatant that the speaker must have intended to implicate something thereby. The addressee's task, as always, is to compute that intended meaning based on the context, the utterance, and the maxims. As always in the case of floutings, the question facing the addressee is how to preserve the assumption of the speaker's overall cooperativity in light of what would appear to be a grossly uncooperative – or at least, irrelevant (in this case) – utterance. Grice gives the following example:

> At a genteel tea party, A says *Mrs. X is an old bag*. There is a moment of appalled silence, and then B says *The weather has been quite delightful this summer, hasn't it?* B has blatantly refused to make what HE says relevant to A's preceding remark. He thereby implicates that A's remark should not be discussed and, perhaps more specifically, that A has committed a social gaffe. (1975: 54)

A similar situation is found when the object of the insult, unbeknownst to A, comes within earshot; in this case B's remark, which on the surface is irrelevant, is designed to cue A to change topic so as to avoid embarrassment.

Floutings of Relation can also be used to generate implicatures based on the suggestion that there is nothing relevant that can be said. Consider, for example, a variation on the so-called "Gricean letter of recommendation" above. This time, instead of praising the candidate's penmanship and promptness (which are at least relevant for a job, if not the most relevant qualifications a recommender might choose to comment on), suppose I choose entirely irrelevant attributes to praise:

> Dear X:
> I am writing in support of Sally Smith's application for a job in your department. Ms. Smith was a student of mine for three years, and I can tell you that she is a fine mother, a terrific practical jokester, and has my genuine admiration for her abilities in both table tennis and badminton.
>
> Sincerely,
> Betty J. Birner

Once again, I will have done irreparable damage to Ms. Smith's chances of getting the job – but this time it will not be merely because I haven't said enough. In fact, I could go on at quite some length in this vein, describing the candidate's skills in various other sports, for example, or giving further details about her badminton serves and how they may have benefitted from her considerable efforts at table tennis. No matter how extensive my praise, it won't do Ms. Smith any good. The problem here goes beyond Quantity. The problem is that none of the skills and virtues I attribute to Ms. Smith have anything to do with the sorts of

skills and characteristics that a prospective employer is likely to care about. Because it can be assumed that I know what sorts of skills and characteristics those would be, and because I have chosen to talk about quite distinct properties, which are blatantly irrelevant to Ms. Smith's potential job performance, the reader will assume that I am flouting Relation. In order to preserve the assumption that I am nonetheless trying to be cooperative, the reader will search for some meaning that would be relevant to the task at hand – that is, conveying Ms. Smith's suitability for the position in question. I have written an entirely positive letter, but because I have said nothing relevant, the reader will be licensed to infer that I have nothing positive to say about Ms. Smith's relevant qualifications, and thus that I intend to implicate the entirely relevant fact that Ms. Smith is unsuitable for the job.

Quiet violations of Relation can allow the speaker to induce the addressee to draw a false inference while the speaker escapes responsibility for the falsity, having said nothing untrue. These cases overlap a great deal with the cases discussed above as floutings of Quantity, since to say something irrelevant is generally to say too much, and to say too much often involves saying something irrelevant. Consider again, for example, the case of Mr. Bronston's testimony in (28), repeated in (34):

(34) Q. Do you have any bank accounts in Swiss banks, Mr. Bronston?
A. No, sir.
Q. Have you ever?
A. The company had an account there for about six months, in Zurich.

Here, Bronston violates the maxim of Quantity, certainly, by not saying enough – specifically, by not answering the particular question asked of him. But in the answer he does give, he violates Relation as well; his answer, concerning an account held by his company, is strictly speaking irrelevant to what he has been asked, concerning his own accounts. By responding with information about his company, he induces his hearers to infer that this must be the most relevant information he could have given in response to the question, and therefore that any fact that might have been more relevant – such as his having a Swiss bank account of his own – must not hold. While this inference is clearly intended by the speaker, we have seen above that he is ultimately not held legally responsible for it, since it is not part of the semantic, truth-conditional meaning of his utterance. In this way, a violation of Relation can be just as misleading as a violation of Quality, while being a safer tactic for the speaker, who is in the strictest sense innocent of having lied.

A different sort of case arises when the speaker violates Relation by making an utterance with the intention that the addressee infer a relation between this utterance and the context – in effect, causing the addressee to falsely believe some relation exists in order to preserve the belief in the speaker's overall cooperativity. Consider first Grice's example of a speaker observing Relation:

(35) A: Smith doesn't seem to have a girlfriend these days.
B: He has been paying a lot of visits to New York lately. (Grice 1975, example 2)

Assuming B believes that Smith has a girlfriend in New York, B's utterance observes the maxim of Relation, and A will be licensed to infer that Smith has a girlfriend in New York. This is exactly what we would expect, since A assumes that B is being as cooperative as possible, and therefore that B's utterance must be relevant to the question of Smith having a girlfriend. Now, however, assume that B knows perfectly well that Smith does not have a girlfriend in New York. In this case, B has violated Relation, and in doing so has given A cause to believe something false (that Smith has a girlfriend in New York). B's violation of Relation, as with the other maxim violations we have considered above, is purposefully misleading. Perhaps Smith has been carrying on with A's girlfriend and B is trying to help Smith by throwing A off the trail, or perhaps Smith has no girlfriend at all and B is trying to preserve his reputation as a lady's man. Whatever B's motive, B will be taken as having implicated via Relation that Smith has a girlfriend in New York – but, crucially, B cannot be held to have actually said any such thing.

2.1.4 *The maxim of Manner*

The last of Grice's maxims is also, ironically, the least straightforward. This maxim, the maxim of Manner, states:

- Avoid obscurity of expression.
- Avoid ambiguity.
- Be brief (avoid unnecessary prolixity).
- Be orderly.

Unlike the other three maxims, this one is a bit of a grab bag of submaxims that are neither tightly related nor opposing sides of the same coin (as with the submaxims of Quantity). For example, avoiding ambiguity and being brief, while both important to clear communication, are really quite distinct things: It is possible to be long-winded and unambiguous, or to make an ambiguous utterance in very few words (as in *Exploding things can be dangerous*). Similarly, one can present things in an orderly way while nonetheless being neither brief nor unambiguous. We will take the four submaxims one by one.

The first submaxim says to avoid obscurity of expression. Given this maxim, we can assume that a speaker has chosen the least obscure way of making their point. When this maxim is being observed, therefore, the speaker will convey both a belief that the utterance is clear and a belief that no other way of saying the same thing would be significantly clearer. This will of course depend on the

addressee's and the speaker's beliefs about what will be clear to the addressee. For example, there are terms that I would deem clear to an audience of linguists (such as *implicature*, for example) that I would never use with a gathering of family members at Thanksgiving. To do so would implicate that I assume these terms are clear to them, and would mark me as arrogant, self-centered, and out of touch with who they are and what their interests are. On the other hand, there are times when a careful violation of this submaxim can work to the speaker's benefit: I have heard beginning job-seekers encouraged to sprinkle a few obscure terms through their interview and/or job talk in order to implicate to their potential employers that they are well-versed in new and exciting concepts of which the employer is as yet only dimly aware (or unaware). Of course, if overdone, this strategy can backfire, leaving the addressees feeling that the candidate was arrogant, incomprehensible, and unable to gauge the hearer's level of understanding – not desirable qualities in a potential colleague.

More common is the strategy of flouting this submaxim, of being purposefully obscure in order to implicate that someone else within earshot should not be made aware of the content of the conversation. This can be done either with the goal of keeping information from someone or with the goal of conveying to someone that they don't belong in the conversation. The latter case, for example, might be exemplified by a conversational grouping in which three linguists launch into a technical discussion of morphophonemics in order to gently drive away the fourth member of the group, the lone non-linguist. (Lest our hypothetical group seem unkind, we'll assume they want to drive the fourth member away so they can discuss preparations for that person's surprise birthday party.) The former case, of keeping information from someone, is exemplified by any number of mediocre spy movies, in which two spies exchange information in a public space by uttering a bizarre exchange such as that in (36) to convey coded information:

(36) A: The crow flies at midnight.
B: The pomegranates are in aisle 16.

A more mundane example would be the case in which parents wish to avoid having their small child understand their conversation, and so they might, for example, spell out words such as B-I-R-T-H-D-A-Y-P-A-R-T-Y. In such a situation, part of what is conveyed by the flouting of Manner is an implicature to the effect that the information encoded by the spelled-out portion of the utterance is not to be shared with the child.

The second submaxim is rather routinely obeyed without giving rise to any particular implicature; the absence of ambiguity in an utterance does not generally convey any pragmatic meaning beyond the notion that the interpretation the addressee is assumed to have arrived at is the only one intended, and that the addressee need look no further for additional meanings. (That is, the implicature is the rather pedestrian notion that the utterance is, indeed, unambiguous.)

However, the maxim can be flouted for either literary or humorous effects. Puns are one example: When the third debate between presidential candidates John McCain and Barack Obama in 2008 focused temporarily on the business aspirations of a certain "Joe the Plumber," who hoped to buy his employer's plumbing business, I commented to a friend that Joe's plans were a pipe dream. It was a pun precisely because of its ambiguity: My utterance could be interpreted as meaning that Joe's plans were a pipe dream in the idiomatic sense, that is, a dream that would never come to fruition, or it could be interpreted as meaning that it was a dream involving pipes. Many puns involve ambiguous utterances that make sense on both readings. (Another type of pun is similar but involves an utterance that is phonetically close to but not identical to another expression – as with *weapons of math instruction* – and therefore is not truly ambiguous.) This submaxim can also, however, be flouted for literary effect: Grice cites the case of Blake's poetic lines *Never seek to tell thy love, love that never told can be*. Here there is an ambiguity between the readings "a love that can never be told" and "a love that, once told, can no longer exist"; and the use of the ambiguity allows the poet to achieve a sort of tension between the two by conveying both, yet asserting neither definitively (since the ambiguity leaves open the possibility that only one or the other reading holds, but does not clarify which).

The third submaxim, "be brief," has often been observed to be closely related to the second submaxim of Quantity ("do not make your contribution more informative than is required"). And as observed above, that submaxim – and therefore this one as well – has often been noted as closely connected with the maxim of Relation. Thus, it is frequently the case that to fail to be brief is to make one's contribution more informative than is required, as well as to say what is irrelevant. Correspondingly, to say what is irrelevant is to make one's contribution more informative than is required, as well as to fail to be as brief as one might have. For this reason, a remark that on the face of it would seem to be lengthier than necessary will carry with it an implicature of relevance – that is, an implicature that the comment is in fact as brief as it can be without violating another maxim, and therefore that its length is justified by the relevance of the information it encodes.

On the other hand, a flouting of the submaxim of brevity may carry an implicature based on the apparent unwillingness of the speaker to make the point more straightforwardly, a situation much like that discussed above with respect to the first submaxim, where an adult might choose to state something in a lengthy or purposely obscure way in order to convey that a co-present child should not be made aware of the content of the conversation. Reasons for not wanting to be maximally brief vary: Grice gives the example of *Miss X produced a series of sounds that corresponded closely with the score of "Home sweet home,"* where the speaker "wishes to indicate some striking difference between Miss X's performance and those to which the word *singing* is usually applied" (1975: 56) and thus avoids the use of the simpler word. Similarly, a speaker might also choose to flout the submaxim of brevity in order to avoid being socially

incorrect or simply too blunt: Consider a situation in which speaker A has asked speaker B, *How does this outfit look on me?* If B thinks A looks great, all is well. However, if B thinks A looks terrible, there are two choices: B can either say so directly (*You look terrible*), or flout brevity (*That's quite an outfit; I'm not sure I've seen you wear that before. The colors are certainly bright, and you've always looked good in bright colors, but then again it's awfully sunny outside and might call for something more muted . . .*). In the latter case, A is likely to make the correct inference ("you look terrible") without the unpleasantness that would likely ensue from the more blunt assertion.

In (37) we see the effect of a failed attempt to quietly violate the brevity submaxim:

(37) I travelled across country and joined the local train midway, expecting to find Sebastian already established; there he was, however, in the next carriage to mine, and when I asked him what he was doing, Mr Samgrass replied with such glibness and at such length, telling me of mislaid luggage and of Cook's being shut over the holidays, that I was at once aware of some other explanation which was being withheld. (Waugh 1946)

Here, through the length of his reply (along with its glibness), Samgrass unwittingly suggests to the hearer that there is something that he is trying to cover up.

Finally, the fourth submaxim of Manner, "be orderly," is generally taken to mean, among other things, that a narrative will present ordered events in the order in which they happened (unless the author is trying for some particular literary effect). Thus, to say (38a) will implicate (38b):

(38) a. His footsteps made the floor creak, and he coughed self-consciously. (Braun 1986)
b. He coughed self-consciously after his footsteps made the floor creak.

That is to say, a temporal ordering is imposed on the events described, with the temporal ordering corresponding to the order in which they are presented. It would not be false to utter (38a) in a situation in which the man in question first coughed self-consciously, after which his footsteps made the floor creak, since both of those things did happen. (Which is to say, the implicature is not part of the truth-conditional content of the sentence.) But it would be a distinctly uncooperative way to report them. Recall from the beginning of the chapter that this implicature is not always associated with the use of the conjunction *and*; for example, if I report that I ate bacon and eggs for breakfast, my hearer will not infer that I first ate the bacon and then the eggs. Thus, the implicature is neither truth-conditional nor context-independent. Recall also that temporal ordering is not the only implicature associated with the conjunction; in (38a), for example, there is an additional implicature of causation – that is, an implicature that the

man coughed self-consciously **because** his footsteps had made the floor creak. The two implicatures do not always co-occur, as seen in (39):

(39) I got up and left him in the restaurant and went to my car and sped off, as he came outside after me. (Smith 2010)

Here there is certainly an implicature that the listed events happened in the order presented – that is, that the narrator got up before leaving the other person in the restaurant, and that she left him before going to her car and (then) speeding off. But there is no implicature of causation – no implicature that she left him in the restaurant because she had gotten up, or that she went to her car because she had left him in the restaurant – and the statement is not false if these causal relationships do not exist. Here we again see that the inference drawn is dependent on the context, and does not affect the truth conditions of the sentence. It is therefore entirely pragmatic.

2.2 Types of Implicature

As discussed in Chapter 1, Grice makes a distinction between **natural** and **nonnatural** meaning: Natural meaning involves a non-arbitrary relationship that is independent of any purposefulness or intent, as with *Those clouds mean rain.* Nonnatural meaning is arbitrary and intentional, as with *"masticate" means "chew."* This meaning relationship is arbitrary in that any other word could have come to have this same meaning, and it is intentional in that a person uses the word "masticate" intentionally to mean "chew" (as opposed to clouds, which don't intentionally indicate rain). Within the category of nonnatural meaning, Grice distinguishes between what is **said** and what is **implicated**. What is said is truth-conditional, and what is implicated is not. What is implicated, in turn, may be either **conversationally** or **conventionally** implicated, and what is conversationally implicated may be due to either a **generalized** or a **particularized** conversational implicature. These last two distinctions are discussed in the next sections.

2.2.1 Conversational implicature

All of the implicatures discussed above in connection with the Cooperative Principle have been **conversational implicatures**. One hallmark of a conversational implicature is that its contribution to the meaning of the utterance is not truth-conditional: If it turned out that the implicature did not hold, the truth of the statement would not be affected. Another is that the implicature is context-

dependent: If the context were different, this particular form might not give rise to the same implicature. The degree to which the implicature attaches to the form varies, however. In the next two sections, we will discuss two types of conversational implicature in which the strength of the attachment differs; thereafter, we will discuss conventional implicatures, in which the implicature is in fact context-independent.

2.2.1.1 Generalized conversational implicature

A generalized conversational implicature is one which is generally attached to the form, and therefore does not need to be computed anew with each relevant utterance. Consider again example (24), repeated here as (40):

(40) None of the Victorian mothers – and most of the mothers were Victorian – had any idea how casually their daughters were accustomed to be kissed.

As discussed previously, the clause in (41a) gives rise to the inference in (41b):

(41) a. Most of the mothers were Victorian.
b. Not all of the mothers were Victorian.

However, there is nothing in particular about mothers or the Victorian age, or anything else in the context, that leads to this inference. It is entirely based on the use of the word *most*. In fact, in most cases, the use of the word *most* will implicate *not all* (including the one in this sentence!). We say therefore that the implicature from *most* to *not all* is a **generalized** conversational implicature – one that has come to be generally present when the word *most* is used. Given the linguistic form *most X*, the implicated meaning will include "not all X," and this meaning generalizes across instances of *most X*, regardless of what *X* is. This is not the same as saying that the implicature is conventionally attached to the use of the word *most*, however, since it is entirely possible to deny the implicature:

(42) Most of the mothers were Victorian; in fact, they all were.

Here, no contradiction is felt between stating that most of the mothers were Victorian (which would generally implicate "not all"), and subsequently affirming that all were. Scalar implicatures as a class are generalized; that is, as discussed above, the selection of one value on a scale will implicate that no higher value applies, all other things being equal. But there's the rub, of course; all other things needn't be equal, and one of the things that can affect the presence or absence of a scalar implicature is an explicit cancellation, as in (42). (Cancellation of implicatures will be discussed more fully below.) Another factor is the presumed relevance of other possible values, as illustrated in (43):

(43) Guests are required to be 21 years old (on embarkation day) to travel. (http://cruises.affordabletours.com/search/AgeRequirements, last accessed January 25, 2012)

Here, there is no implicature that guests must be precisely 21 years old in order to travel, that is, there is no scalar implicature to the effect that they are required to be no more than 21 years old. Why not? The reason is that 21 is the only relevant age; once that has been passed, it doesn't matter whether the individual is 22 or 92. Thus, a generalized conversational implicature will generalize to an entire natural class of linguistic expressions in the default case, but as with all conversational implicatures, whether or not the implicature is present in a specific case depends on the context.

2.2.1.2 Particularized conversational implicature

In contrast to the generalized implicatures discussed above, particularized conversational implicatures are unique to the particular context in which they occur. Consider again the examples in (33), repeated here as (44):

(44) a. Three times Della counted it. One dollar and eighty-seven cents. And the next day would be Christmas.

There was clearly nothing to do but flop down on the shabby little couch and howl.

b. Once upon a sunny morning a man who sat in a breakfast nook looked up from his scrambled eggs to see a white unicorn with a gold horn quietly cropping the roses in the garden. The man went up to the bedroom where his wife was still asleep and woke her. "There's a unicorn in the garden," he said. "Eating roses." She opened one unfriendly eye and looked at him. "The unicorn is a mythical beast," she said, and turned her back on him.

As noted above, the maxim of Relation allows us to infer that Della is howling in despair over not having enough money to buy a nice Christmas gift in (a), and that the wife means to convey that the husband did not see a unicorn in the garden in (b). These implicatures, however, do not generalize to a larger class of cases; for example, there is no natural class of utterances of the form "the X is a Y" that gives rise to a default inference of "you did not see an X." We cannot even say that in the default case *the unicorn is a mythical beast* gives rise to an inference of "you did not see a unicorn"; encountering that sentence in a textbook on mythology, for example, would give rise to no such inference. Likewise, we cannot say that the default case of an utterance describing someone flopping onto a couch and howling gives rise to an inference involving insufficient funds for a Christmas gift. The ludicrousness of such a notion is an indication of how utterly

contextually bound these implicatures are; without the surrounding context, the implicatures simply fail to arise – or other, similarly context-bound implicatures take their place. (Imagine the final sentence of (44a), for example, occurring in a story involving a neglected dog rather than a poverty-stricken woman as protagonist.)

A particularized conversational implicature, then, is one that arises due to the interaction of an utterance with the particular, very specific context in which it occurs, and hence does not arise in the default case of the utterance's use or the use of some more general class of utterances of which it is a member.

The distinction is not always as clear as it appears, however. For example, consider the case of Quality implicatures. Uttering (45a) will generally produce the implicature in (45b):

(45) a. It's going to rain tomorrow.
b. The speaker believes it is going to rain tomorrow, and has reason to believe it is going to rain tomorrow.

This would at first glance appear to be a particularized conversational implicature, given the specificity of the content of the implicature. There certainly doesn't seem to be a larger class of utterances sharing a common form and giving rise to a similar class of implicatures, as is the case with scalar implicatures, which we have argued above are generalized conversational implicatures.

However, one could also argue that (45b) arises in the default case of (45a) being uttered, just as with the generalized conversational implicature in (40), where *most of the mothers* implicates "not all of the mothers." Moreover, one could argue that there is indeed a class of utterances that give rise, in a generalized way, to a specific class of implicatures, and that this class is the class of declarative utterances. That is, one could say that uttering a declarative sentence expressing the proposition *p* gives rise in the default case to an implicature of the form "the speaker believes that *p*, and has reason to believe that *p*," and that this pairing of form and implicature generalizes to the entire set of declarative utterances. Thus, one could argue that the Quality and Quantity implicatures raised by (46a) and (47a) can both be framed either in generalized terms, as in (46b) and (47b), or in particularized terms, as in (46c) and (47c):

(46) a. It's going to rain tomorrow.
b. The speaker believes the utterance is true, and has reason to believe it's true.
c. The speaker believes it's going to rain tomorrow, and has reason to believe it's going to rain tomorrow.

(47) a. Most of the mothers were Victorian.
b. No higher value than the one explicitly uttered is believed to hold.
c. Not all of the mothers were Victorian.

The validity of the generalized/particularized distinction, then, rests on the question of whether there is a sense in which (47) involves a generalization to a larger class of utterances in a way that (46) does not. In short, is there an important difference between the so-called "particularized" Quality implicature in (46) and the so-called "generalized" Quantity implicature in (47)?

Grice's formulation suggests that scalar values as a class behave similarly with respect to conversational implicature in a way that is not paralleled by, say, the class of Quality implicatures. And indeed, one could argue that scalar values constitute a semantically coherent class in a way that declarative utterances do not – that "declarative" is just too broad a category. On these grounds, one could say that labeling the entire class of Quality implicatures as "generalized" fails to make a helpful distinction between subtypes of Quality implicatures in the same way that the generalized/particularized breakdown makes a useful distinction between subtypes of Quantity implicatures. (For further discussion of the validity of the distinction between generalized and particularized conversational implicature, see Hirschberg 1991 and Levinson 2000.)

2.2.2 *Conventional implicature*

As noted at the beginning of the chapter, it is a defining feature of implicatures that they do not affect the truth conditions of the sentence. Thus, any non-truth-conditional aspect of an utterance's meaning may be considered an implicature. Moreover, as we have seen in the previous section, conversational implicatures are further defined by their context-dependence. That is, a conversational implicature is calculated on the basis of the linguistic expression uttered, the context in which it was uttered, and the Gricean maxims. There is, however, another category of implicatures which, like conversational implicatures, are non-truth-conditional, but which, unlike conversational implicatures, are context-independent. These are called **conventional implicatures**. Conventional implicatures do not require a calculation based on the maxims and the context; instead, they are consistently attached to a particular linguistic expression, regardless of context. In this sense, they are conventional (i.e., they are conventionally attached to a linguistic form). Nonetheless, they are non-truth-conditional. For this reason, they may be seen as occupying a sort of boundary area between pragmatic meaning (being non-truth-conditional) and semantic meaning (being context-independent).

Conventional implicatures were discussed briefly at the end of Chapter 1, where it was noted that they raise a problem for the question of where to draw the boundary between semantics and pragmatics. Consider (48), taken from that discussion:

(48) Clover is a labrador retriever, but she's very friendly.

As noted in Chapter 1, there is a conventional implicature here to the effect that there exists some contrast between being a labrador retriever and being

friendly. In fact, most people who know something about dogs would find (48) to be an odd thing to say, precisely because labradors have a reputation as being very friendly dogs. This is not, however, a conversational implicature, because it is not dependent on context. Recall that the examples of conversational implicature above can disappear in certain contexts, as in (49):

(49) a. Most of the mothers were Victorian; in fact, they all were.
b. Guests are required to be 21 years old (on embarkation day) to travel.

In (49a), the normal implicature from *most* to *not all* is cancelled by the addition of the second clause (*they all were*); in (49b), the normal implicature from *21* to *not 22* vanishes in a context in which the only relevant factor is whether or not the individual in question has attained the age of 21. Conventional implicatures, on the other hand, are conventional precisely because they are conventionally attached to a particular linguistic expression, regardless of context. Thus, the implicature of contrast associated with *but* in (48) cannot be eradicated via cancellation, relevance, or other contextual means:

(50) a. #Clover is a labrador retriever, but she's very friendly, and there's no contrast between being a labrador and being friendly.
b. There's really no correlation between specific breeds and temperaments. Clover is a labrador retriever, but she's very friendly.
c. If you want photos of a really attractive dog for your pet-supply catalog, try a labrador retriever. Here's one in this photo; her name is Clover. Clover is a labrador retriever, but she's very friendly.

In (50a), the attempt to cancel the implicature in a way similar to the cancellation in (49a) fails; the utterance comes off as very odd. The attempt in (50b) to defuse the implicature prior to the relevant sentence similarly fails; here, the sense of contrast remains. Finally, in (50c), the irrelevance of the labrador/friendliness connection in the context of dog photos does nothing to eliminate the sense of contrast connected with the use of *but*.

Despite their status as context-independent, however, conventional implicatures are non-truth-conditional. Thus, (48) is true precisely when it is true that (a) Clover is a labrador retriever and (b) she's very friendly, and false in all other cases. The fact that labradors are almost always friendly – and thus that the conventional implicature of contrast does not hold – has no bearing on the truth of the utterance. To put it another way, suppose the following three propositions are true:

(51) a. Clover is a labrador retriever.
b. Clover is very friendly.
c. There is a contrast between being a labrador retriever and being friendly.

In this case, *Clover is a labrador retriever, but she is very friendly* is true. Now consider the case where all labradors are friendly – that is, in the case where (51c) is false; in this case, the utterance is still true (albeit an odd thing to say). Compare this with the situation that would hold if, say (51a) were false – if, say, Clover were a cocker spaniel. In that case, the entire utterance in (48) is rendered false. Thus, the meaning in (51a) constitutes part of the truth-conditional meaning of the utterance in (48). Since the truth of (51c) has no effect on the truth of the utterance in (48), it is an implicature; since it is conventionally attached to the use of the word *but*, it is a conventional implicature.

2.3 Testing for Implicature

As illustrated in the preceding section, one of the ways to distinguish between conversational and conventional implicatures is to see whether the implicature can be cancelled by changing the surrounding context. This is one of several tests for conversational implicature that Grice proposed (and which are discussed in significantly more detail in Sadock 1978), all of which hinge on the fact that conversational implicatures are context-dependent and non-truth-conditional. Specifically, these tests take conversational implicatures to be:

- calculable
- cancellable
- nondetachable
- nonconventional
- "not carried by what is said, but only by the saying of what is said"
- indeterminate

First, conversational implicatures are **calculable**. That means that it must be possible to work out – to calculate – the implicature based on the utterance, the maxims, and the context of utterance. This is clearest in the case of particularized conversational implicatures, of course, but generalized conversational implicatures also take context into account. Moreover, recall that Grice's point isn't that the implicature is necessarily calculated, but merely that it **could** be. For example, the scalar implicature associated with *most* is generalized, and therefore represents the default reading; therefore, there is no assumption that an addressee hearing a use of the word *most* goes through a reasoning process like this one: "Let's see. The speaker has used the word *most*, and in so doing has chosen not to use the word *all*. The maxim of Quantity says that a cooperative speaker will give as much information as possible, so if *all* were accurate, the speaker should have used *all*. Since the speaker has instead chosen to use a scalar value that falls short of *all*, it must be that *all* does not hold. Therefore, I may safely infer *not all*." Nonetheless, Grice claims that precisely such a reasoning process must be

available to the addressee, regardless of whether it actually needs to be used. Broadly speaking, generalized conversational implicatures will usually not require the calculation to be performed, whereas particularized conversational implicatures will – but as with all matters concerning conversational implicatures, it all depends on the context.

Second, conversational implicatures are **cancellable**. This is perhaps the most commonly used test for conversational implicature: If you cannot cancel it, it's not a conversational implicature. We saw above in (49a) that *Most of the mothers were Victorian* gives rise to an implicature that "not all of the mothers were Victorian," which could be straightforwardly cancelled via the addition of *in fact, they all were*. Similarly, one can cancel the Relation-based implicature in (33b) above; compare the original, repeated in (52a), with (52b), in which the implicature is cancelled:

(52) a. Once upon a sunny morning a man who sat in a breakfast nook looked up from his scrambled eggs to see a white unicorn with a gold horn quietly cropping the roses in the garden. The man went up to the bedroom where his wife was still asleep and woke her. "There's a unicorn in the garden," he said. "Eating roses." She opened one unfriendly eye and looked at him. "The unicorn is a mythical beast," she said, and turned her back on him.

b. Once upon a sunny morning a man who sat in a breakfast nook looked up from his scrambled eggs to see a white unicorn with a gold horn quietly cropping the roses in the garden. The man went up to the bedroom where his wife was still asleep and woke her. "There's a unicorn in the garden," he said. "Eating roses." She sat up excitedly and looked at him. "The unicorn is a mythical beast, and I've never seen a mythical beast before. This is wonderful; show me!" she said, running to the window.

Whereas the utterance *The unicorn is a mythical beast* in (52a) gives rise to an implicature of "you did not see a unicorn," in (52b) the implicature is cancelled by the subsequent discourse, which makes it clear that the wife agrees that her husband saw a unicorn. This property is also called **defeasibility**, meaning that conversational implicatures can be defeated in the right circumstances.

Related to the notion of cancellability is **reinforceability** (Sadock 1978). Just as conversational implicatures, by virtue of not being part of the conventional meaning of the utterance, can be cancelled without contradiction, they can also be reinforced without redundancy. Consider again the examples of the unicorn and the Victorian mothers, but with the following amendments:

(53) a. . . . "The unicorn is a mythical beast; therefore you did not see one," she said, and turned her back on him.

b. Most of the mothers were Victorian, but not all of them.

Here, the implicature in each case is made explicit, yet there is no sense of redundancy, because in a very real sense the speaker of *the unicorn is a mythical beast* has not in that clause **said** that her husband didn't see a unicorn, nor has the writer of *most of the mothers were Victorian* said, in that clause, that not all of them were. Thus, the addendum making the implicature explicit evokes no sense of redundancy. For this reason, Sadock (1978) argues that reinforceability is roughly as good a test for conversational implicature as cancellability.

Third, conversational implicatures are **nondetachable**. This means that any way of phrasing the same proposition in the same context will result in the same implicature (with the exception of Manner-based implicatures, of course); the implicature cannot be detached from the proposition. Consider (54):

(54) The woman at the admittance desk told them that Elner was in the emergency room and she had no information on her condition, but the doctor would meet them in the waiting room and give them a report as soon as he knew something. (Flagg 2007)

In (54), in the context of Elner being in the emergency room, mention of a doctor who would *give them a report as soon as he knew something* gives rise to a Relation-based implicature to the effect that the report will be a report on Elner's condition, and that *as soon as he knew something* means "as soon as he knew something about Elner's condition." Now consider (55):

(55) The woman at the admittance desk told them that Elner was in the emergency room and she had no information on her condition, but the doctor would meet them in the waiting room and provide a report to them as soon as he had information.

Notice that the last dozen words here differ from those at the end of (54), yet the propositional content is essentially the same – and the implicatures likewise remain the same. In fact, in this context there is no way to convey that the doctor would provide a report (or an update, or information, etc.) as soon as he knew something (or had information, or knowledge, etc.) without implicating that the information and the report would both be about Elner's condition. Any way of conveying the same semantic content will convey this implicature as well. Nonetheless, it is cancellable:

(56) The woman at the admittance desk told them that Elner was in the emergency room and she had no information on her condition, but the doctor would meet them in the waiting room and give them a report as soon as he knew something – but the report would unfortunately only contain very general information about the tests that would be done. For specific information on Elner's condition, they would have to wait until morning.

Here, the implicature that the report will contain information about Elner's condition is cancelled.

The fourth test for conversational implicature is based on their being **nonconventional**. That is to say, the implicature is not consistently carried by the particular linguistic expression used (which is why it can be cancelled). This is in a sense the flip side of its being nondetachable; together, nonconventionality and nondetachability follow from the fact that the implicature is calculated from the combination of the proposition, the context, and the maxims, rather than being attached to the expression. It is, in short, the proposition, and not the linguistic expression, that matters for conversational implicatures – and in this, conversational implicature differs from conventional implicature. If two different expressions carry the same semantic content (such as *and* and *but*), there is no guarantee that they will carry the same conventional implicature in a given context; however, two expressions with the same semantic content will (except in the case of Manner-based implicatures) carry the same conversational implicature. Likewise, a single expression used in two different contexts might convey two different conversational implicatures, but will always carry the same conventional implicature. Nonconventionality is the property that guarantees that changing the context in which a given expression is uttered has the potential to change the conversational implicature(s) it gives rise to. If the implicature were conventional – that is, if it were conventionally attached to the linguistic expression in question – it would be impossible to change it by changing the context in which that expression is uttered.

Fifth, Grice observes that a conversational implicature is "not carried by what is said, but only by the saying of what is said." This is somewhat more opaque than the other tests. Here, it is best to quote Grice directly:

> Since the truth of a conversational implicatum is not required by the truth of what is said (what is said may be true – what is implicated may be false), the implicature is not carried by what is said, but only by the saying of what is said, or by "putting it that way." (1975: 58)

At first glance, this would appear to be at odds with nondetachability, which says that any other way of saying the same thing would carry the same implicature – which would make it appear that the implicature is indeed carried by "what is said" and not by "putting it that way." But what Grice means is that the implicature is not carried by the semantics (if it were, it would be conventionally attached to the semantics regardless of the context), but instead by the speaker's decision to say what they've said, and to say it in that context. To clarify, consider again Grice's example discussed above as (35) and repeated here:

(57) A: Smith doesn't seem to have a girlfriend these days.
B: He has been paying a lot of visits to New York lately.

As Grice notes, the maxim of Relation will lead A to infer that B means to implicate that Smith has a girlfriend in New York. What Grice's fifth test tells us is that the proposition expressed in B's statement could be true, yet the implicature could nonetheless be false; therefore it's not the proposition itself ("what is said") that carries the implicature. Consider, for example, the case described above, in which B knows Smith has been fooling around with A's girlfriend, and therefore wants to throw A off the scent, as it were, by suggesting that Smith has a girlfriend in New York. Here, B's statement may well be true (i.e., Smith may be paying a lot of visits to New York, for some irrelevant reason) while the implicature is false. And in another context, in which B knows that A knows that Smith has been paying a lot of visits to New York to visit his desperately-ill mother, the implicature might be entirely different – for example, that Smith's obligations to his mother are preventing him from being able to cultivate a romantic life. Thus, the implicature isn't carried by the semantics – what is said – but rather by the saying of it – that is, by the speaker's decision to say this thing at this point, for a certain hoped-for effect (the implicature), whose truth or falsity is not tied to the truth or falsity of the proposition expressed.

The final test tells us that conversational implicatures are **indeterminate**. That is to say, there might be any number of possible inferences that could reasonably be drawn based on a particular utterance in a particular context. As Grice points out, the inference drawn is a supposition that is made in order to preserve the assumption of the speaker's cooperativity, and it's possible that any number of suppositions would serve the purpose in a given context. For example, consider (57) in the case where Smith is known to have a sick mother in New York. Here B has, on the face of it, said something that is not obviously relevant to the question of Smith's having a girlfriend. Therefore, A must make some inference – provide some supposition – that will preserve the assumption of B's cooperativity. The inference that Smith has a girlfriend in New York would do the trick, since then B's utterance about Smith spending time in New York is directly related to the question of his having a girlfriend. However, the second inference – that his caring for his sick mother is preventing him from having time for a girlfriend – would serve as well, since that inference, too, would provide a direct connection between Smith's time in New York and the question of his having a girlfriend. In this sense, then, the implicature is indeterminate, since it is impossible to determine for certain what the "correct" implicature is (short of asking the speaker, who might not for that matter give a truthful response).

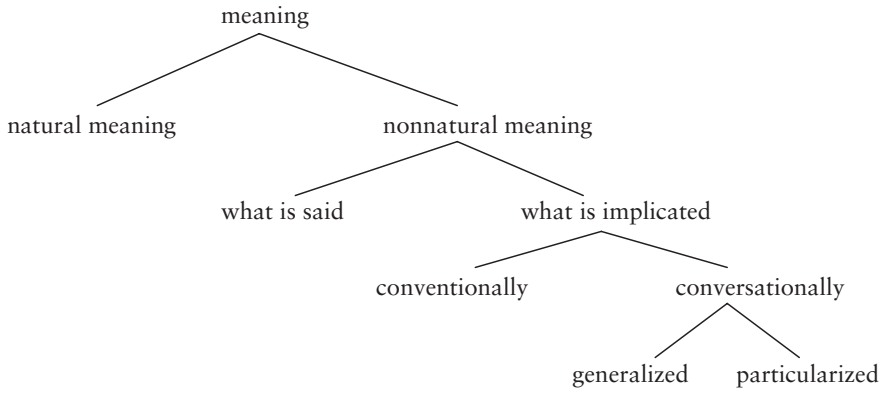
These properties provide us with a set of tests for distinguishing conversational implicatures from entailments, presuppositions (see Chapter 5), conventional implicatures, and so on. However, as Sadock (1978) points out, not all of the tests are equally valuable; for example, he notes, "Conversational implicata are by definition nonconventional and if it were possible to tell in some intuitive way what is and what is not conventional, then there would be no need for other

criteria" (284–285). The most reasonable tests, he argues, are calculability, cancellability, and nondetachability, with cancellability being the best of the batch. But none of them are flawless, he argues; none of the properties listed is both necessary and sufficient. (For example, as we have seen above, nondetachability is not a property of Manner implicatures, which by definition depend not only on what is said but also on how it is said.) Nonetheless, taken together, these tests can help us to determine whether or not a specific piece of meaning that arises in a particular context constitutes a conversational implicature.

2.4 The Gricean Model of Meaning

As described above and in Chapter 1, the Gricean model of meaning makes a number of important distinctions: between natural and nonnatural meaning, between what is said and what is implicated, and among various types of implicature. Grice draws a distinction between conventional and nonconventional implicature, and within the latter category, between conversational and non-conversational implicature. The category of nonconventional, non-conversational implicature is one he mentions in passing, noting that along with the conversational maxims discussed above, there are "all sorts of other maxims (aesthetic, social, or moral in character), such as 'Be polite', that are normally observed by participants in talk exchanges, and these may also generate nonconventional implicatures" (1975: 47). Although there has arisen a field of Politeness Theory based on the maxim "be polite" (to be discussed in more detail in Chapter 6), for the most part the category of nonconventional, non-conversational implicature has not been pursued by theorists, and so the Gricean model of meaning is typically shown schematically as in (58), with minor variations (see Levinson 1983, Sadock 1978, *inter alia*):

(58)



Recall from Chapter 1 that natural meaning involves a direct indication independent of anybody's intent, as in *That clap of thunder means rain* or *A sore throat means the onset of a cold*. Nonnatural meaning is intentional, and includes (but is not limited to) linguistic meaning. Within nonnatural meaning, we find a distinction between what is said and what is implicated, with the latter constituting the topic of this chapter. The distinction between what is said and what is implicated has been taken to correlate with the distinction between truth-conditional and non-truth-conditional meaning, and this has sometimes been taken as the dividing line between semantic and pragmatic meaning (though this assumption will be challenged in Chapter 3). Within the category of what is implicated, we distinguish conventional from conversational implicature depending on whether the implicature is conventionally attached to the expression, and within the category of conversational implicature, we distinguish between generalized and particularized conversational implicatures depending on whether the implicature generalizes to a natural class of utterances.

2.5 Summary

This chapter has presented Grice's Cooperative Principle; its maxims of Quantity, Quality, Relation, and Manner; and their submaxims. We discussed four ways of behaving with respect to the maxims: The speaker can observe a maxim, violate it, flout it, or opt out. The first three options give rise to conversational implicatures. Numerous examples showed how implicatures can arise from the observation, violation, or flouting of the maxims. Within the discussion of the individual maxims, specific types of implicature and their effects were discussed, such as scalar implicature, metaphor, and irony. Conversational implicature was distinguished from conventional implicature, and within the class of conversational implicature, generalized implicature was distinguished from particularized implicature. The properties of conversational implicature – in particular, its status as context-dependent and non-truth-conditional – led to the discussion of a number of tests for conversational implicature. The chapter ended with an overview of the Gricean model of meaning. This model of meaning will be important for the discussion in the next chapter, which will compare newer models of meaning that incorporate or challenge Grice's insights to varying degrees. In particular, this chapter's assumption regarding the boundary between semantics and pragmatics – here drawn on the basis of truth-conditionality and hence falling between the categories of "what is said" and "what is implicated" in the diagram in (58) – will be challenged by some (but not all!) of the newer theories.

2.6 Exercises and Discussion Questions

1. Explain the difference in implicatures between the following two utterances:
   a. Last week I yelled at my boss and got fired.
   b. Last week I got fired and yelled at my boss.

2. Example (28) is taken from a perjury case involving a Quantity implicature. If you were deciding the case, would you convict Mr. Bronston of having committed perjury? Why or why not?

3. For each of the cases in (29), explain which of the conditions for a lie listed in (30) seem(s) to be missing, and discuss which of the cases in (29) you would consider to be a lie. To what extent does the notion of a fuzzy set help in defining the word *lie*?

4. In what ways is the Clinton case discussed in Section 2.1.2 similar to and different from the Bronston case? Does the Clinton case involve a failure to address the question at hand, as was argued for the Bronston case? Would you come to the same conclusion in the two cases? Why or why not?

5. To what extent do you think the Bronston case, the Clinton case, and/or the examples in (29) bear on the relationship between semantics, pragmatics, and truth conditions? Explain your answer.

6. List three expressions that you consider to be clearly metaphorical, and trace the reasoning by which a hearer might calculate the intended implicature. Then list three dead metaphors, and three metaphors that you believe are on their way to being dead.

7. For 48 hours, record the instances of implicatures that you encounter in your own life. Watch especially for implicatures using each of the four maxims, including implicatures based both on the observance of the maxims and on the flouting of the maxims.

8. At the end of the story from which (44b) is taken, the wife has sent for the police and a psychiatrist to take her husband away. She tells them that he has seen a unicorn in the garden, and they ask him if this is true. "Of course not," the husband responds. "The unicorn is a mythical beast." They conclude that the wife is crazy, and they take her away. Here the husband has used the same linguistic expression the wife used earlier (*the unicorn is a mythical beast*), but the implicature is somewhat different. Explain what

the implicature is in the husband's remark, and show how it can be calculated.

9. To what extent do the truth conditions of *The unicorn is a mythical beast* depend on whether unicorns exist in the real world? To what extent do they depend on the semantic meaning of the word *mythical*? How would your answers change if instead of truth conditions, these questions were asked about truth value?

10. It has often been noted that Grice's formulation of the maxim of Manner seems to violate itself, and some have wondered whether this was intended as a bit of humor. Explain where the maxim violates itself, and which two submaxims of Manner are being violated.

11. The text describes ways of looking at scalar implicature as either generalized or particularized conversational implicature. Which analysis seems correct to you, and why? Explain why the distinction between generalized and particularized conversational implicature either does or does not seem well motivated.

12. Are there particularized Quantity implicatures? What does your answer suggest about the distinction between generalized and particularized conversational implicature? Can you distinguish generalized and particularized subclasses within the class of Quality implicatures? How about within the class of Relation implicatures?

13. Based on the discussion here and in Chapter 1, explain in your own words why conventional implicatures are said to occupy the boundary region between semantics and pragmatics. What would be the theoretical ramifications of considering them to be semantic? Pragmatic? Which strikes you, at this point, as being the more reasonable analysis, and why? Or if you don't think it matters, why not?

14. For each of the following potential implicatures, apply the tests for conversational implicature and discuss the results. ("+>" means "conversationally implicates" – or in this case, "possibly conversationally implicates.")
    a. *My dog is black* +> "I have a dog"
    b. *Only Fred likes calamari* +> "Fred likes calamari"
    c. *Sally fell and skinned her knee* +> "Sally skinned her knee when she fell"
    d. *It's raining outside* +> "The speaker has evidence that it's raining outside"
    e. *Gloria is tall; therefore, she is athletic* +> "Tall people are athletic"
    f. *Jason has few friends* +> "Jason has some friends"
    g. *Fido has a fluffy tail* +> "Fido has a tail"