CLASSIFYING CONDITIONALS

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Abstract

In this thesis I address the issue of the semantic classification of conditionals. Traditionally, conditionals have been thought to divide into two classes, 'indicative' and 'subjunctive'. I argue that this traditional classification draws the line in the wrong place, and that some of the 'indicatives' belong properly with the 'subjunctives'. In the final chapter I offer a fuller classification of the things we say with English 'if', arguing that they in fact fall into *three* main categories.

The local debate has wider implications. In the course of the argument I am obliged to defend controversial theses on such diverse topics as tense, modality, and semantic structure. Lying behind the traditional classification of conditionals, and my rival classification, are two opposing views about tense in simpler English idioms (and hence in English quite generally). Before turning to the particular issue I try to settle this background dispute. The line that I draw between conditionals, meanwhile, has modal claims on one side of it, and claims with notably different semantic structure on the other side. The local classificatory issue thus naturally leads us into these neighbouring fields.

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Contents

Introduction

1. Sentences and their interpretations

I begin with a distinction between *sentences* and the informational burdens they are uttered in order to convey. I call these latter *interpretations* of sentences, or *messages*.[1] The distinction is forced upon us by the phenomenon of ambiguity, where one string of words is found conveying two or more quite different messages. For example:

(1) *If Terry went to Waterloo, Julie would go with him.*

(1) bears both a *future conditional* interpretation (cf. "If Terry went to Waterloo this evening, …"), and a *past generalization* interpretation (cf. "In those days, if Terry went to Waterloo, …"). Or again:

(2) *They were getting married.*

(2) can convey a message pertaining to a past wedding, and another quite different message pertaining to a past *prearrangement* (cf. "They were getting married in November, but have had to postpone it now until next year"). Once more:

(3) *I had a cup of tea.*

(3) is ambiguous between a *single-event* interpretation (cf. "I had a cup of tea this morning"), and an interpretation concerning the speaker's past *habits* (cf. "I had a cup of tea with my breakfast in those days, but now I prefer to drink coffee").[2]

The phenomenon of ambiguity also indicates that it is the message that determines the sentence, rather than the other way round.[3] Natural languages are best viewed as systems for *encoding* information *into* strings of words, rather than for *extracting* information *from* strings of words. That the encoding function is

[1] I would call them *propositions*, but for the implication then of truth-aptness, and not everything we say (I will argue) is of the true-or-false variety. *Message*, then, is accordingly meant as a broader term.

[2] Notice that the habitual interpretation has a direct analogue in the present tense ("I have a cup of tea for breakfast these days") but that the single-event interpretation does not.

[3] Not that the message *completely* determines the sentence: English leaves some matters at the discretion of the speaker, notably word order—"I went to the shops yesterday" / "Yesterday I went to the shops"—and occasional stylistic variance—"If Terry went / was to go / were to go to Waterloo…"; "If Terry had gone to Waterloo…" / "Had Terry gone to Waterloo…".

not one-to-one is then the obvious explanation of the existence of ambiguous sentences.

Thus someone who overhears an utterance of any of (1)-(3) above will be able, given only a knowledge of the English language, to work out which messages could, consistently with the systematic rules of that language, have resulted in that string. In order to work out which message was in fact responsible for it on that particular occasion, meanwhile, the hearer will have to bring to bear all sorts of other knowledge (about the surrounding context). How it is that hearers almost always manage to get the right interpretation is an excellent question, but it is a further question.

As an investigator of a language and of the things that can be said in it, the semanticist should be everywhere scrupulous about the distinction between sentences and messages. Accordingly, I predicate truth and other semantic properties only ever of *messages*, and never of the sentences (whether ambiguous or not) that may be used to convey them. In particular, *conditionals*—items of considerable interest among today's semanticists, and soon to become our chief focus—are not 'if'-sentences, so much as *interpretations* of 'if'-sentences. After all, the past generalization interpretation of (1) above is not usually taken to be a conditional, though the future interpretation of the very same sentence is.[4] Thus it must be the interpretations that semanticists have in mind when they talk of conditionals.

In what follows I number all my example sentences, and refer back to them—as above—with numbers in brackets. (To prevent numbers from getting out of hand, I reset the counter at the start of each chapter.) I refer to messages with a lowercase '*m*' and a numerical subscript. Though sentences are in general ambiguous, for the most part I am interested in just one interpretation of a given sentence in the course of any particular discussion, whereupon m_n is that salient interpretation of sentence (*n*). Often one interpretation springs to the native speaker's mind ahead of any other; when this happens, I refer to this obvious interpretation as the *natural* one.

[4] Most writers in the area simply ignore the generalization interpretations of 'if'-sentences. They are explicitly discounted from the class of conditionals by Jonathan Bennett (2003, p. 5). I use the term 'conditional' here and throughout with the intention of latching on to its customary extension in the philosophical literature. I have no very pressing need to make this extension precise—examples will suffice until the very last chapter (chapter 7), when I offer what I hope to be a reasonably complete classification of the things we say with 'if', including a retrospective demarcation of the conditionals recognized by Bennett and others.

2. The particular issue

This is a thesis in the semantics of English, i.e. in the study of (some of) the messages people convey with English sentences. I am interested, in particular, in the issue of the correct classification of the things we say with 'if'.

Traditionally, conditionals have been thought to fall into two categories, 'indicatives' on the one hand, and 'subjunctives' or 'counterfactuals' on the other. The essence of this distinction has proved elusive, but the customary extensions of the terms are more readily agreed upon. In the former class, for instance, we find the natural interpretations of the following sentences.

(5) *If Oswald didn't shoot Kennedy, someone else did.*

(6) *If Oswald doesn't shoot Kennedy, someone else will.*

(7) *If Robert is here, he is invisible.*

In the latter class we find, paradigmatically, the natural interpretations of the following pair.

(8) *If Oswald hadn't shot Kennedy, someone else would have.*

(9) *If Robert was / were here, we would be able to see him.* [5]

The tradition has a long history, and finds its clearest support today in the works of Frank Jackson (1987, 1990, 1991a) and Jonathan Bennett (1995, 2001, 2003).[6]

In recent years, dissenters of two kinds have emerged. The first group believe that some of the 'indicatives'—namely, the 'future indicatives', instanced by the natural interpretation of (6) above—have been wrongly classified, and belong properly on the other side of the line, with the 'subjunctives'. This—the *relocation thesis*, as I will term it (following Bennett, 2003, §6)—finds its clearest support in the work of V. H. Dudman (e.g. 1984, 1991, 1994b) and Michael Pendlebury (1987). Other endorsers include Timothy Smiley (1984),

[5] A long-standing tradition in prescriptive grammar condemns the even longer-standing use of 'was' (as opposed to 'were') in such constructions. But both are perfectly good English, and moreover reflect no discernable difference in meaning. On this see e.g. Rodney Huddleston and Geoffrey Pullum (2002, §3.1.7).

[6] See also Ernest Adams (1970, 1975)—from whom the Oswald examples are borrowed—and David Lewis (1973). Other supporters include Wayne Davis (1979) and Robert Stalnaker (1968), though they believe the difference between the two classes to be only very slight.

D. H. Mellor (1993), and Michael Woods (1997); also Bennett (1988), before he changed his mind back again (1995). The second group of dissenters, meanwhile, believe that all conditionals are of just one unified kind, a view to be found in e.g. Brian Ellis (1978) and Dorothy Edgington (1995).

It is important to be clear that this classificatory debate is, at its heart, a debate about *tense*. This would seem to be common ground, though it is not always emphasized as such. I illustrate by example; to which end, consider the iconic Oswald-sentences and their natural interpretations:

(5) *If Oswald didn't shoot Kennedy, someone else did*.

(6) *If Oswald doesn't shoot Kennedy, someone else will*.

(8) *If Oswald hadn't shot Kennedy, someone else would have*.

The relocators' central claim—that m_6 belongs with m_8—is not just a claim about broad semantic *similarity*: Dudman's and Pendlebury's view is (very precisely) that m_6 and m_8 differ *only in tense*, with the former in the present tense, and the latter in the past past tense. ('Doesn't shoot', it will be observed, encodes presentness in non-conditional contexts, where 'hadn't shot' can encode pastpastness; and so it is, these theoreticians urge, in conditional contexts too.)

Defenders of the traditional classification are not always so forthcoming about their views concerning the tense of conditionals, but given their background views on tense in general (see §3 below), and their views about the structure of these conditionals (see chapter 5, §1), they seem to be committed to the view that it is m_5 and m_6 that differ only in tense, with (5) encoding about the *past* exactly what (6) encodes about the *future*.

Edgington, meanwhile, agrees with the relocators' central contention that m_6 and m_8 differ only in tense (*op. cit.*, §10.1). But then she goes on to say that m_5 and m_8 also differ only in tense (p. 314)—so that, by transitivity, she must be committed to the traditionalists' central contention too. The unified view, from this perspective, is then the view that the relocators and the traditionalists are *both* right (in their positive claims, that is, though not in their negative ones).

Now that we have an overview of the logical space, let me stake out my territory: I will be arguing that the relocators' central tense claim is correct, and that the traditionalists' central tense claim is not (so that the unified view is also incorrect). It follows that there is a distinction to be drawn among conditionals, with 'future indicatives' and 'subjunctives' on the same side of the divide.

3. The wider issue

I have claimed that the classificatory debate concerning conditionals is at its heart a debate about tense. But of course tense phenomena are not restricted to the things we say with 'if'. There are wider issues at stake.

Behind the traditional classification of conditionals, it seems to me, are the following two general thoughts about English: (*i*) that English has a future tense, marked by 'will', so that (e.g.) 'will shoot' encodes for the future exactly what 'did shoot' or 'shot' encodes for the past, and (*ii*) that English has something like 'indicative' and 'subjunctive' moods, the latter marked by 'would', and with tense independent of mood.[7] Behind the relocational classification, meanwhile, is the following thought: that 'will' everywhere encodes for the present exactly what 'would' encodes for the past, that English has no future tense, and marks no distinctions of mood.

My aim in this thesis is to defend not only the relocation thesis for conditionals, but also the background thought about 'will' and 'would' just advertised. Given the content of this conclusion, I should stress at the outset that my focus here is only on the English language, and on the things that can be said in it. If my conclusion is right, then it follows that talk about the future in English is notably different from talk about the present and the past. And if this is so, the philosopher will doubtless want an explanation of this arresting fact. However, speculation concerning such matters is beyond the scope of the present discussion.[8] To repeat, my focus here is on the semantics of English; nothing more or less.

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[7] I say *something like* 'indicative' and 'subjunctive' moods because many traditionalists no longer believe that the distinction is one of grammatical mood as such (however taken); see e.g. Bennett (2003, §5). The important point, however, is that there is supposed to be a semantic distinction between these two categories that has nothing to do with tense. With this qualification acknowledged, I will continue to call them moods, since no other term is forthcoming.

[8] Perhaps just on the edge of its scope is the following briefest of comments. Whatever one says about metaphysics in general, there are questions—emphasized by P. F. Strawson (1959)—of *descriptive* metaphysics, namely questions concerning the actual structure of our thought about the world. It is not implausible to think that our native conception of time best fits the 'growing block' theory, allowing facts about the past and present, but none about the future. (For a recent defence of this theory, see Michael Tooley (1997).) And if this is our native conception, it would surely be no surprise to find such a dichotomy leaving its mark on our forms of speech. Thus our languages would have evolved a means of expressing claims of past and present fact, but not of future fact. This, in outline, is exactly how I take matters to have panned out.

Chapter 1: Tense in Unconditional Messages

1. Preliminaries

Dudman, staunch relocator of conditionals, also offers a theory of tense for simple, unconditional messages, which serves as the foundation for his relocational view.[9] In the present chapter I will first outline this theory, then outline the rival view implicit in many other writers in the area, arguing that the former is preferable.

We will be needing some syntactic terminology to aid the subsequent discussion. I adopt, in all essentials, the (standard) terminology used by e.g. F. R. Palmer (1974).

Subsumed under the lexeme SHOW we find five forms: 'show', 'shows', 'showed', 'showing', and 'shown'. (Although we will see in a moment that it is convenient to distinguish *two* syncretized forms, both spelt 's-h-o-w'.)[10] These are referred to, in general, as the *V*, *V-s*, *V-ed*, *V-ing*, and *V-en* forms of the verb respectively. We may identify the corresponding forms of other verbs in the following way. The *V* form is found following a 'to': 'to *be*', 'to *eat*', 'to *sing*', etc. The *V-ing* form is found following a form of the verb BE but not HAVE: 'is *being*', 'is *eating*', 'is *singing*', etc. (but not 'has being', 'has eating', etc.). The *V-en* form is found following a form of the verb HAVE: 'has *been*', 'has *eaten*', 'has *sung*', etc. (The *V-en* form, we may observe, doesn't always end in '-en'.)

The *V-s* and *V-ed* forms, finally, are the forms that always appear first in the verb phrase of a main clause. The reader is likely to think of them as the *present* and *past* forms of the verb respectively, and these are the labels Palmer gives to them. I prefer to avoid semantically loaded terminology for matters of syntax, however, since there is no guarantee at the outset of the enquiry that such forms always register presentness and pastness respectively. (I believe, in fact, that they do, but would rather not prejudice the matter with my terminology.) Here, then, I stick instead to the theoretically neutral '*V-s*' and '*V-ed*' to refer to these forms. The *V-s* form varies slightly according to person and number, as does the *V-ed* form in the case of BE. For example:

[9] See esp. his (1985).

[10] Huddleston and Pullum (2002, §3.1.2) justify the recognition of syncretism on the grounds that it allows for a more general grammatical theory.

		BE	SING	SHOW	HAVE
V-s	I	am	sing	show	have
	we, you, they	are			
	he, she, it	is	sings	shows	has
V-ed	I, he, she, it	was	sang	showed	had
	we, you, they	were			

For every verb apart from BE, the *V-s* form is identical in appearance to the *V* form except in the third person singular (where we find the distinctive '-s' ending). It is convenient, however, to acknowledge *two* forms here, both with the same spelling. Thus 'show', for example, is both the *V* form and the *V-s* form (except in the third person singular) of the verb SHOW.

To sum up, with some more examples:

V	*V-s*	*V-ed*	*V-ing*	*V-en*
be	am, is, are	was, were	being	been
eat	eat, eats	ate	eating	eaten
kick	kick, kicks	kicked	kicking	kicked
show	show, shows	showed	showing	shown

Next, we must distinguish the *verbs* from the *secondary auxiliaries* or *modals*. The former, as seen above, come in five forms (ignoring variations for person and number in the *V-s* and *V-ed* forms). The latter come in at most two forms, and half of them only one. The modals are WILL, SHALL, CAN, MAY, MUST, OUGHT, DARE, and NEED.[11] Their forms are:

WILL	will	would
SHALL	shall	should
CAN	can	could
MAY	may	might
MUST	must	-
OUGHT	ought	-
DARE	dare	-
NEED	need	-

[11] Dudman posits a ninth modal, SHOULD, whose single inflectional form ('should') is the same as one of the forms of SHALL. This complication has no bearing on anything that follows, so I simply ignore it here.

English sentences divide into *simple* and *non-simple*. The former comprise just one clause, which breaks down into a *subject* (a noun phrase) and a *predicate* (everything else). The latter contain more than one clause.

The predicate of every simple sentence, meanwhile, always contains either the *V-s* or the *V-ed* form of a verb, or the form of a modal. If the former, the sentence belongs to the *primary pattern*; if the latter, the sentence belongs to the *secondary pattern*. Predicates containing a form of a modal always also contain the *V* form of a verb shortly thereafter: 'will *be*', 'must *have*', 'can *do*', etc.

Lastly, some predicates are *phase modified*, i.e. instead of the *V-s* or *V-ed* form of the verb (in the primary pattern), or the *V* form of the verb following the modal (in the secondary pattern), we find the corresponding form of the verb HAVE, followed by the *V-en* form of the original verb. For example:

not phase modified	*phase modified*
is	has been
was	had been
will be	will have been
would be	would have been

Therewith I have all the syntactic machinery that I will be needing.

2. Tense and the primary pattern

Considered as a part of the language system, tense is a matter of *time*—a factor of messages—determining *form*—a property of sentences. Considered as a property of messages themselves, tense is a piece of temporal information, an ingredient of the message that is encoded into the form of the verb or modal at the start of the predicate.

Suppose, for example, that I want to convey a message about a certain *notional subject*—e.g. Robert—satisfying a certain *conceptual condition*—e.g. living in France—at a certain time, present or past. My message must contain at least these three ingredients: notional subject, conceptual condition, and the time of the latter's satisfaction by the former. The message determines the sentence in the following way: (*i*) the notional subject determines the choice of syntactic subject ('Robert'); (*ii*) the conceptual condition determines the choice of predicate ('LIVE in France'); and finally (*iii*) the time determines the choice of verb form, *V-s* for present, *V-ed* for past (in this case, 'lives' for present, and 'lived' for past). If mine is a message about the present, then, the output is (1):

(1) *Robert lives in France*.

If mine is a message about the past, meanwhile, the output is (2):

(2) *Robert lived in France*.

So it plays out in this particular case. I now submit that, in sentences of the primary pattern, the choice between the *V-s* and the *V-ed* form is *always* governed in just this way by temporal information, with the *V-s* form signalling *present* satisfaction of some conceptual condition by some notional subject, and the *V-ed* form signalling *past* satisfaction of the same. (Sometimes it is *non*-satisfaction rather than satisfaction: "Robert does / did *not* live in France".) Whether or not this submission is right is of course a matter for empirical investigation.[12]

With phase modification, matters become slightly more complicated. The fact is that phase can interfere with primary messages in two different places, and the effect is different in each case. The first place it can interfere is in the conceptual condition, which, instead of the condition of, say, *eating a banana*, might rather be the condition of *having eaten a banana*. A notional subject—Robert again, say—might be said to satisfy this condition either at the present time, or at some past time. If past, the output is (3):

(3) *Robert had eaten a banana*.

If present, the output is (4):

(4) *Robert has eaten a banana*.

But phase can also interfere with the past tense, conveying thereby that the past time of the notional subject's satisfaction of the conceptual condition is itself past with respect to some other already past time: in effect, a *past past* tense. Thus, for instance, if I wish to convey a message about Robert satisfying the condition of living in France at some past time *prior* to another past time—the time, say, at which he lived in Germany—English affords me the option of 'had lived' rather than just plain 'lived'. And the output sentence is (5):

[12] For a possible counterexample, and a treatment of it that is after all compatible with this generalization, see chapter 6, §2. For a fuller discussion of the matter, see Dudman (1985, §§3-25). Space constraints forbid me from defending my submission in detail, so I refrain from using is as a premise in any subsequent reasoning.

(5) *Robert had lived in France (before he lived in Germany).*

In confirmation of the claim that phase modification is signalling here something different from what it signals in (3) and (4) above (on their intended interpretations), notice that (6) below is not a sentence of English:

(6) * *Robert has lived in France before he lived in Germany*.

Yet (6) stands to (5) as (4) stands to (3).

I stress that phase modification in (5) is signalling something different from phase modification in (3) *only on the latter's then interpretation*. For it will be observed that (3) is in fact ambiguous between its originally intended past tensed 'perfective' interpretation, and a past past tensed interpretation, akin to m_5 (cf. Otto Jesperson, 1931, p. 81; Palmer, *op. cit*., pp. 54f.). And so it is for whole swathes of simple primary pattern sentences with 'had *V-en*' at the start of the predicate:

(7) *I had tried to tell you*.

(8) *He had given her a present*.

(9) *They had got married*.

Once again we see that, if these ambiguities are to be accounted for, it must be the message that determines the sentence, the time that determines the form.

Temporal information can be very specific, and very unspecific. The present is an instant, and so encoded into the *V-s* form of the verb we find a precise piece of temporal information. The past, however, is a *region*, and so encoded into the *V-ed* form is only a very *imprecise* piece of temporal information. As for the salient past point behind which the sponsor of a past past tensed message wishes to retreat, this too is not encoded into the formal choice.

We have seen that, for some interpretations of primary pattern sentences, at least, the time registered by the formal choice between *V-s* and *V-ed* is the time of the conceptual condition's satisfaction (or non-satisfaction) by the notional subject. I will call messages for which this is the case *statements*. My position, in these terms, is that *all* interpretations of primary pattern sentences are statements, though I cannot defend this claim here in full (cf. n. 12 above). I trust it is uncontroversial that statements in this sense are all *propositions*, i.e. messages of the true-or-false variety. They are *claims of fact*.

3. Tense and the secondary pattern

Interpretations of secondary pattern sentences, on the relocators' view, are of three kinds. There are *statements*—just like those messages discussed above—and then there are *judgements*. The latter divide further into *practical* judgements and *projective* judgements.[13] Their defining characteristics will be given in due course. For now, suffice it to say that (as it turns out), practical judgements concern actual matters of fact, present or past, while projective judgements concern situations (possibly future) that can only be imagined.

Despite this diversity, tense in the secondary pattern is likewise a matter of time determining form, but in this case it is the form of a modal rather than of a verb. Mindful both of space constraints, and of the immediate concerns of the present debate about conditionals, I focus here almost exclusively on WILL. Comments on the other modals will be only as detailed as I need for this limited purpose, and far too brief to satisfy anyone with an interest in how they work.

Consider, first, the natural interpretations of (12)-(14) below:

(12) *(These days,) I will often be found in the library*.

(13) *(In those days,) I would often be found in the library*.

(14) *(Before my graduation,) I would often have been found in the library*.

The proponent of each of these three messages affirms the satisfaction of a certain conceptual condition by a certain notional subject at a certain time—present in the first case, past in the second, and past past in the third. The notional subject (the speaker) is responsible for the choice of syntactic subject, 'I'; the conceptual condition is responsible for the choice of predicate, 'WILL often be found in the library'; and the temporal information is responsible for the formal choice between 'will', 'would', and 'would' plus phase modification.

[13] See Dudman e.g. 1991, §4. Dudman uses 'proposition' where I use 'statement'. To clarify: by a *proposition* I mean a claim of fact, a message of the true-or-false variety; and by a *statement* I mean a message for which the time of the conceptual condition's satisfaction is encoded in the formal choice at the start of the predicate (as illustrated in the previous section, and in contrast to judgements, which I turn to in this section). Dudman, meanwhile, makes no use of 'statement', and uses 'proposition' to refer to any message for which *both* of these things hold. There is no real disagreement here—for I take it that all statements are propositions and that all propositions are statements. But, recognising how controversial this claim is, I prefer not to build it into my terminology.

These messages, then, are clearly *statements*, akin to the interpretations of primary pattern sentences that we were examining in the previous section. Their tense (time registered by form) is the time of the conceptual condition's satisfaction by the notional subject. (Statements are also found encoded in secondary pattern sentences where the modal is *not* WILL. For example: "These days, I may occasionally be found in the library"; "In those days, I might occasionally be found in the library"; "Julie can swim very well"; "Julie could swim very well (in those days)"; "I can hear someone upstairs"; "I could hear someone upstairs just now".)

Not all interpretations of WILL-sentences are statements, however. Some, I have said, are *practical judgements*. The defining characteristic of these messages is that the time of the conceptual condition's putative satisfaction by the notional subject is signalled by the presence or absence of phase modification. Examine, by way of example, the natural interpretations of (15) and (16) below:

(15) *Julie will be at work at the moment*.

(16) *Julie will have been at work yesterday*.

The absence of phase signals *present* satisfaction, while the presence of phase signals *past* satisfaction. (Here, then, is a third use of this versatile syntactic device; cf. pp. 12-13.)

I discern in these messages, just as in statements, a notional subject (Julie), and a conceptual condition (being at work). There is yet a *further* piece of information in these messages, however, that we do not find in statements—namely, whatever it is that is responsible for the selection of one modal rather than any other; compare:

(17) *Julie will / may / must / ought to / needn't / daren't be at work at the moment*.

Following Dudman, I call this informational factor a *verdict*.

To my mind, the verdict of a practical judgement is a *subjective* thing, corresponding to nothing out there in the world. I see no reason, therefore, to treat these messages as of the true-or-false variety. They are not *claims of* past or present fact, but *judgements concerning* past or present fact. They are not *propositions*, then. Perhaps the reader will resist this claim; in the present context I have no need to press it further.

We come now to a very interesting question concerning the English language, namely, what does the choice between 'will' and 'would' encode in such sentences as (18) and (19) below, on their practical judgement ('judgement concerning present fact') interpretations?—

(18) *Robert will know the result of the football*.

(19) *Robert would know the result of the football*.

I submit that, just as in (12)-(14) on their statement interpretations, this choice encodes *temporal* information: present for 'will' and past for 'would'. Of course, this information is not the time of the conceptual condition's satisfaction (as in statements), but I suggest that it is temporal information nonetheless—namely, the time of the latest fact or facts upon which the inference is based. Thus she who says that Robert *will* know the result of the football is typically basing her judgement on *up-to-the-minute* information: here he is in the pub, say, glued to the television. She who says that Robert *would* know the result of the football, meanwhile, is *waiving* such present facts, thereby giving her audience to believe that her judgement is premised on previously-established truths about Robert's character—his general interest in the sport, perhaps.

The difference effected by selection of 'will' rather than 'would' in such cases is a very subtle one, but noticeable nonetheless. The present proposal has the virtue of being able to account for this difference. It also has the virtue of doing so by extending the account already given of the difference effected by this same choice in the encoding of *statements* into WILL-sentences.

Practical judgements, by definition, are those for which the time of the conceptual condition's putative satisfaction is signalled by phase. But phase does not signal this temporal information in all judgements. Those for which it does not are called *projective* judgements, and are instanced by the natural interpretations of the following sentences.

(20) *Terry will go to Waterloo tomorrow*.

(21) *(Given half the chance,) Terry would go to Waterloo tomorrow*.

(22) *(But for Julie's accident,) Terry would be at Waterloo right now*.

(23) *(Given half the chance,) Terry would have gone to Waterloo tomorrow*.

(24) *(But for Julie's accident,) Terry would have been at Waterloo right now*.

(25) *(But for the weather,) Terry would have gone to Waterloo yesterday*.

With projective judgements there is an arresting pattern between the time of the conceptual condition's putative satisfaction and the formal choice at the start of the predicate, as illustrated by the above examples: when 'will' is selected, the condition's satisfaction is always future, when 'would' is selected it is always present or future, and when 'would have' is selected it may be past, present, or future. This pattern demands an explanation, and I will offer one presently.

First, however, let us take a moment to examine the ingredients of m_{20}-m_{25}. As with practical judgements, we discover in the above projective judgments a notional subject (Terry), a conceptual condition (going to Waterloo, or being at Waterloo), and a verdict (will). This last, again, is responsible for the choice of modal; compare:

(26) *Terry will / may / should / must / needn't / daren't go to Waterloo tomorrow*.

Finally, there is whatever mysterious ingredient it is that is responsible for the formal choice between 'will', 'would', and 'would' plus phase modification. The tenor of the discussion so far suggests that we seek a *temporal* account of this ingredient, with 'will' encoding presentness, 'would' encoding pastness, and 'would have' encoding pastpastness. Just such a temporal explanation, I will now argue, is capable of accounting for the data with remarkable success.

Consider the following three sentences, and their natural interpretations.

(27) *Terry will make a fine husband for Julie*.

(28) *Terry would make a fine husband for Julie*.

(29) *Terry would have made a fine husband for Julie*.

Observation reveals that (27) is the appropriate thing to utter when Terry and Julie are engaged, while (28) is fitting when there is no such engagement, and (29), finally, will be uttered when, for example, Terry has just married someone else. On Dudman's semantics, these messages are all judgements concerning imagined developments out of perceived historical realities, realities of the *tense*, i.e. of the

time registered by the formal choice at the start of the predicate: thus *present* realities in m_{27}'s case, *past* realities in m_{28}'s case, and *past past* realities in m_{29}'s case.[14]

This semantic proposal accounts for the above observations as follows. When Terry has just married someone else, the speaker must begin her imaginative exercise at some point past with respect to this already past wedding, in order that Terry may be innocent of bigamy in the envisaged scenario. With Terry and Julie presently engaged, meanwhile, the imaginative exercise is happily begun from *present* realities. And while both parties remain single, the safe point from which to leave off is the simple past, in order to allow the pair to find their way into wedlock, in the imagined situation, from whatever unhurried beginnings. (Note that the *present* tensed judgement commits the speaker to Terry becoming Julie's husband *as things presently stand*, and thus to the judgement that Terry and Julie *will* get married.)

This proposal also accounts for the intriguing pattern exhibited by (20)-(25) on their natural interpretations. Since these are judgements concerning imagined *developments* out of certain realities of the tense, the time of the conceptual condition's satisfaction in each case must be *later* than the tense.

Projective judgements, like practical judgements, are not propositions. They are *subjective* messages. Facts *guide* such judgements, certainly, as do nomological apprehensions about the world and its ways (the laws of nature, etc.). But the judgements themselves do not concern any matter of fact. I see no reason, accordingly, to give them a truth-conditional treatment. Indeed, there is good reason *not* to, for they do not enjoy the same logical entailments that propositions enjoy. A proposition, once affirmed, is taken to hold *regardless*. Thus she who affirms the natural interpretation of

(30) *Robert had cereal for breakfast this morning*.

is thereby also committed to, among other things, the natural interpretation of

(31) *Robert had cereal for breakfast this morning even if there was no milk left in the fridge*.

m_{31} is an entailment of m_{30}: one cannot consistently affirm m_{30} while denying m_{31}. By contrast, she who affirms the natural interpretation of

[14] See, e.g., Dudman (1994a).

(32) *Robert will have cereal for breakfast tomorrow morning*.

is *not* thereby committed to the natural interpretation of

(33) *Robert will have cereal for breakfast tomorrow morning even if there is no milk left in the fridge*.

m_{33} is *not* an entailment of m_{32}: one can consistently affirm m_{32} while *denying* m_{33}. (Indeed, this is a very natural stance to take.) Projective judgements, then, are not meant to hold *come what may*; they are meant to hold merely *in the normal course of events*. They are quite different from propositions.

4. Tense and the tradition

It is commonly supposed among philosophers that English has both a future tense and a subjunctive mood.[15] These suppositions, I suggested in the introduction, are the general thoughts lying behind the traditional classification of conditionals. If the above story is correct, however, there is no room for either of these things in a theory of how English works. For tense, on the above story, is a piece of temporal information—an ingredient in the message that is encoded into the form of the verb or modal at the start of the predicate. It is only ever present, past, or past past. Of course we can talk *about* the future, but we do so by means of projective judgements that are themselves in the present, past, or past past tense. The difference between 'will' and 'would', meanwhile, is merely one of tense. 'Would' cannot be a marker of some semantically distinct category, the 'subjunctive mood' (or whatever). The fundamental semantic distinctions are between *statements* and *judgements*, and then between *practical* and *projective* judgements, and 'will' and 'would' are both found in all three categories.

If the relocators' account of tense is to be rejected, and the traditional beliefs in the existence of a future tense and an indicative/subjunctive distinction maintained in its place, then a reasonably complete theory of tense and mood in English in accordance with those beliefs will need to be developed, and its superiority over the theory outlined above made plain.

I surmise that such a traditionalist theory would agree with the above story as regards statements. Practical judgements I will simply lay to one side.

[15] The consensus among grammarians is that English has neither. See e.g. Huddleston and Pullum (2002, §§3.1, 3.10).

Whatever they say about statements and practical judgements, however, it is plain that the traditionalists will have to disagree with the above account of *projective* judgements. For if anything constitutes the English 'future tense', it is to be found in projective judgement interpretations of 'will'-sentences; e.g. those encoded in

(20) *Terry will go to Waterloo tomorrow*.

(27) *Terry will make a fine husband for Julie*.

(34) *It will be sunny tomorrow*.

And if anything constitutes the 'subjunctive mood' in simple messages, it is to be found in projective judgement interpretations of 'would'-sentences; e.g. those encoded in

(28) *Terry would make a fine husband for Julie.*

(29) *Terry would have made a fine husband for Julie*.

It would be surprising, surely, to find 'will' and 'would'—morphologically just two forms of the very same lexeme, as intimately related as 'eat' and 'eats'—serving such different semantic roles. But the possibility cannot be ruled out *a priori*; we must examine the data.

It is difficult to know how to assess the claim that m_{28} and m_{29} are in the 'subjunctive mood', for the essence of subjunctivity has proved elusive. A defender of this claim is surely obliged to state, in clear terms, what subjunctivity is, so that the hypothesis may be brought into contact with the observable facts. (Compare the temporal account developed above of the difference between 'will', 'would', and 'would have', which explains both the similarity of and the differences between m_{27}, m_{28}, and m_{29}, and can be tested against the facts of what people say, and when.)

The essence of the 'future tense' is easier to grasp. The idea is that the natural interpretations of the following differ only in the time they assign to its being sunny:

(34) *It will be sunny tomorrow*.

(35) *It is sunny today*.

(36) *It was sunny yesterday*.

In the terms developed above, the idea must be that these three messages all break down into a notional subject (here just the dummy *it*), a conceptual condition (being sunny), and a piece of temporal information—a *tense*, future, present, and past respectively—concerning the time of the notional subject's satisfaction of the conceptual condition (i.e. the time of its being sunny). The present tense demands the *V-s* form of the verb, the past tense demands the *V-ed* form, and the future tense demands 'will *V*'.

It would perhaps be surprising to find a modal doing the work of a verb form. But maybe that is after all how English works: as noted above concerning the alleged difference between 'will' and 'would' (p. 20), nothing can rule it out *a priori*. However, this hypothesis—the *future tense* hypothesis, as I will call it—does not accord with the facts, as I now argue.

My argument is premised on a thesis and an observation.[16] The thesis is about reported speech: that, when reporting someone's speech (indirectly), we change their words in order to preserve the objective substance of what they said. For example, suppose a speaker affirms the natural interpretation of (37) on a Monday:

(37) *I am in Oxford*.

A different speaker may report her claim, on Tuesday, with (38):

(38) *X said that she was in Oxford*.

'I' is changed to 'she', and 'is' is changed to 'was', the intention thereby being to preserve the content of the original speaker's claim under the changed circumstances of communication (different speaker, later time).

The observation concerns reports of messages about the future encoded using 'will'. Suppose, for example, that a speaker affirms the natural interpretation of (34) on a Monday:

(34) *It will be sunny tomorrow*.

A different speaker may report this, on Tuesday, using (39):

(39) *X said that it would be sunny today*.

[16] Cf. Dudman (1992).

The future tense hypothesis has it that, in sentences such as (34), 'will be' encodes for the future exactly what 'is' and 'was' encode for the present and the past respectively. But if this hypothesis were right, a different speaker could report an utterance of (34) the next day thus:

(40) *X said that it <u>is</u> sunny today*.

As a simple matter of observation, this is not how we report such claims. Furthermore, if anyone did report *X*'s claim in this way, *X* could justly retort that that is *not* what she said; she said that it *would be* sunny. The hypothesis, then, gives the wrong predictions, and should therefore be abandoned.

This argument is not irresistible: perhaps the traditionalists, instead of accepting its conclusion, would prefer to abandon the thesis about reported speech, insisting instead that the relationship between m_{34} and m_{39} establishes that 'indicative' messages in the 'future tense' are reported, in English, using the 'subjunctive mood'.[17] But why this switch between moods, when on the traditionalists' account there is a fundamental semantic distinction between them? There ought to be an explanation. And in the absence of one, I think we should be sceptical—especially when there is an alternative theory on the market that leaves no such explanatory gaps. (On the relocators' account, note, English speakers report 'will' with 'would' in order to preserve the objective substance of what *X* said, exactly as we do everywhere else: the present tense of the speaker's earlier projective judgement is later past.)

In any case, against the temptation to view 'will' as encoding futurity in the supposed 'future tense' cases, observe the *range* of auxiliaries available to the English speaker:

(41) *The doctor will / may / can / must / should / needn't see you tomorrow*.

'Will', in these sentences, doesn't say *future*: it says *will* (as opposed to *may, can*, etc.) *about* the future. This *verdict*, as I have been calling it, is an informational ingredient of the message, for which there is simply no room on the traditional account.

The theory of tense outlined in §§1-3 above is simple, elegant, and widely applicable. As far as I can see, it leaves no relevant facts unexplained. By way of

[17] So says Adams (1975, p. 103).

further evidence in its favour, I end this chapter with a little dialogue. Imagine that, with Terry and Julie recently engaged, someone says:

(27) *Terry will make a fine husband for Julie.*

And now imagine that, before the wedding, Terry passes away. To cope with this tragedy, the speaker now says instead:

(29) *Terry would have made a fine husband for Julie.*

Now, in one very important respect, the speaker has said nothing less than *the same thing* on these two occasions: same Terry, same conceptual condition (making a fine husband for Julie), same verdict (will). And, on the relocators' view, *the same temporal information* encoded into the formal choice at the start of the predicate—past past later, when earlier it was present, but chosen in each case to pick out precisely the same point in time.

At the funeral, someone might say to our imaginary speaker, "You said that Terry would make a fine husband for Julie." And our speaker might reply, "Yes, and I meant what I said: he would have made a fine husband." The evidence, to my mind, is remarkably compelling. The difference between 'will' and 'would' in these cases—indeed, in *all* simple WILL-sentences—is a purely temporal one. Though many of the things we say with 'will' are about the future, not all of them are. And even when they are, that futurity is not encoded in the word 'will' itself.[18]

[18] It is an interesting question whether English is in any way *peculiar* in this regard—that is, whether other languages *do* have a means of encoding about the future exactly what the 'present' and 'past' forms of the verb encode about the present and the past respectively. If the evolutionary explanation gestured at in the introduction (n. 8) is right, then we would expect other languages to be broadly the same as English in this regard—unless human conceptions of time are different across the globe, which seems unlikely. We need not be deterred by the fact that Romance and some other languages have a form of the verb that textbooks often label 'future'. For these forms are *also* used in the expression of inferences to present fact (just like the English 'will *V*')—as Edgington confirms for "all the dozen-or-so languages I have asked native speakers about" (2003, p. 398). Perhaps, then, these 'future' forms are after all really *judgement* forms, much like 'will'. However that may be, I must restrict the scope of my conclusions here to my native tongue.

Chapter 2: The Relocation Thesis

1. Introduction

According to the view developed in the previous chapter, the natural interpretations of the following three sentences differ only in tense:

(1) *Terry will make a fine husband*.

(2) *Terry would make a fine husband*.

(3) *Terry would have made a fine husband*.

The first is in the *present* tense, a judgement concerning (future) developments out of *present* realities. The second is in the *past* tense, a judgement concerning developments out of *past* realities. The third, finally, is in the *past past* tense, a judgement concerning developments out of *past past* realities.

These judgements can all be complicated with an *if*-condition, whereupon the sentential output may become, for example:

(4) *If he stops drinking, Terry will make a fine husband*.

(5) *If he stopped drinking, Terry would make a fine husband*.

(6) *If he had stopped drinking, Terry would have made a fine husband*.

We are now firmly in the territory of the relocation thesis. The traditional classification of conditionals, recall, treats m_4 differently from m_5 and m_6—the former, they say, is an 'indicative' conditional, while the latter pair are 'subjunctives' or 'counterfactuals'. The relocators, however, insist that all three are akin, differing only in tense—just like their simpler counterparts m_1-m_3.

Inspecting m_4-m_6, we discern all the same ingredients as were found in m_1-m_3: the same notional subject (Terry), the same conceptual condition (making a fine husband), the same verdict (will), and the same temporal information (present, past, and past past respectively). In the conditionals, however, there is plainly much *more* information: *another* notional subject (as it happens, in this case, Terry again), *another* conceptual condition (stopping drinking), and *another* piece of temporal information, responsible for the choice between 'stops',

'stopped', and 'had stopped'.[19] Finally there is the *if* operator, responsible for the output of 'if'.

m_4-m_6 are more complicated than m_1-m_3, therefore, but they are still, I suggest, basically the same *type* of message. They are likewise judgements about imagined developments out of perceived historical realities. In *these* imagined developments, however, there is something else: the satisfaction of another conceptual condition by another notional subject. This intrusion serves as a *restriction* on the application of the judgement. While m_1 is a judgement about what will happen *simpliciter*, m_4 is a judgement about what will happen *in the event of Terry's abstaining from drink*—and similarly for the other two pairs. (I pursue this in more detail in chapter 6, §3.)

Some motivation for the relocation thesis has been provided by the previous chapter and the above brief remarks. I turn to a defence of the view (against the tradition's objections) in the next two chapters. In the present chapter, meanwhile, my aim is to provide further support for the view by demonstrating its ability to account for the linguistic data.

Notice, before we go any further, that the dialogue with which I ended the previous chapter could equally occur with conditional clauses. The result would be, for example, a speaker saying, "If he stops drinking, Terry will make a fine husband". When the excessive lifestyle has led to Terry's untimely demise, someone else may now remind the speaker of her earlier judgement with the following words: "You said that if he stopped drinking, Terry would make a fine husband." And the speaker may reply: "Yes, and I meant what I said: if he had stopped drinking, Terry would have made a fine husband." The tradition would have it that certain 'indicative' conditionals are later reported, and subsequently reaffirmed, in the 'subjunctive' mood. Why this might be, they do not say. On the relocational view, however, all this evidence is readily explicable, along precisely the lines that I laid out in the previous chapter when discussing the simpler case: the present tense of the speaker's original judgement is later past.

[19] We may note that the temporal information encoded in the main clause and the temporal information encoded in the 'if'-clause are the same in each case. And so it is for such WILL-sentences in general. Not so MAY or COULD, however; e.g. "If he stops drinking, Terry might / could make a fine husband". I would very much like an explanation for this discrepancy, but at present can offer none.

2. Counterfactuality

It has often been supposed that the proponent of a 'subjunctive' conditional thereby implies (if not strictly, then at least conversationally) that the *if*-condition was *not* in fact satisfied. Indeed, 'subjunctive' conditionals have often been called *counterfactuals* for this very reason. Thus David Lewis: "It is conversationally inappropriate… to use the counterfactual [i.e. 'subjunctive'] construction unless one supposes the antecedent false" (1981, p. 72).

It is easy to see the attraction of this view. The proponent of m_{10}—

(10) *If Oswald hadn't shot Kennedy, someone else would have.*

—is commonly understood as conceding or suggesting that Oswald *did*, in fact, shoot Kennedy. Similarly, the proponent of m_{11}—

(11) *If Robert was here, we would be able to see him.*

—is not implausibly taken to confide belief in Robert's present absence. This initial attraction notwithstanding, however, the view that counterfactuality has anything to do with the semantics of these conditionals is quite mistaken, disproved by counterexamples such as the natural interpretation of (12):

(12) *If Jones had taken arsenic, he would have shown just exactly those symptoms which he does in fact show.*

(The example is borrowed from Alan Ross Anderson (1951, p. 37), who uses it to make the same point.) And after all, it makes perfect sense to say

(13) *Whether or not Oswald shot Kennedy, if he hadn't, someone else would have.*

Thus the speaker's epistemic attitude towards the actual historical satisfaction of the *if*-condition in 'subjunctive' conditionals can have nothing to do with the semantics of such messages.

If the relocators' tense proposal is correct, the facts here are exceedingly simple. Someone who ventures a 'subjunctive' conditional—i.e. a past or past past tensed conditional judgement—must have some *motivation* for diverging from actuality at some past or past past point. Very often this will be that some present or past fact thwarts the *if*-condition's satisfaction in the imagined scenario—as it might be, the speaker believes that Robert is *not* here ("but if he

was…"), or that Oswald *did* shoot Kennedy ("but if he *hadn't*…"). Whence the suggestion, in such cases, of counterfactuality. But of course this *needn't* be the motive. It may just be that the speaker wants to *waive* the point in question: Jones *may or may not* have taken arsenic; either way, if he *had*….

Waiving the point in question is a common enough activity in reconstructive reasoning: "If he had taken arsenic, Jones would have shown exactly these symptoms. So perhaps he did take it." — "If he had come this way, he would have left footprints. And here are footprints just his size, so perhaps…". It is also common in disproofs, where a prior commitment to counterfactuality would beg the question: "If he had come this way, he would have left footprints, and there are no footprints. So he can't have come this way."

The point, then, is not that 'subjunctive' conditionals entail counterfactuality, but that counterfactuality demands conditionals of these forms. And the conditional message itself, I should stress, is the *same* message said either way. The speaker's epistemic attitude towards the actual satisfaction of the *if*-condition is irrelevant as far as English is concerned—as evidenced by the sayability of (13). The truth is that disbelief in its actual satisfaction is sometimes (only *sometimes*) read in by the hearer in order to make sense of the speaker's decision to affirm a conditional of that form. I consider it a significant advantage of the relocators' view of tense that it is able to account for the phenomena here so successfully.

3. Subjectivity

There are two aspects to this unified account of what have traditionally been called 'future indicative' and 'subjunctive' conditionals. The first concerns the temporal information encoded into the formal choice between 'will', 'would', and 'would' plus phase modification: that it is the time at which history stops and imagination takes over in the speaker's reasoning. The second aspect is that the judgement reached on the back of this reasoning is a *subjective* message, unfit to be given truth-conditions.

The two aspects are independent. For those who prefer a truth-conditional account of modal discourse in terms of close possible worlds, there is an easy way to mould such an account to the tense aspect of the relocators' view. This has been done in some detail by Pendlebury (1987), but the essential point is easily introduced, and suffices for present purposes. The tense of these messages, on such an account, is the time at which the relevant close possible worlds are

allowed to diverge from actuality. In Bennett's terms (who endorses a possible worlds account for the 'subjunctives', but not for the 'future indicatives'), this is the time of the admissible 'forks' from actuality (see his 2003, ch. 13)—not that Bennett has anything like Pendlebury's attendant views about tense.

In the context of the classificatory debate, the tense aspect is the more important, since this establishes the relocation thesis all by itself. I insist on both aspects, however, and on the latter for the following reason. In thinking about *what would happen if something were the case*—to take the middle of the three cases by way of example, but with the intention of establishing a point about all three—we are obliged to keep fixed certain aspects of the reality out of which the imagined scenario develops. Otherwise we will have no way of answering any such questions one way or the other. However, there is no obligation to keep one aspect fixed rather than any other: there is in all these cases simply a free choice at the reasoner's end. It is in precisely this that the subjectivity subsists.

For example, here we are at Terry's bachelor party. Eyeing the depravity, I say to you:

(15) *If Julie was here, she would be appalled.*

And you, thinking of everyone's unfailing respect for Julie's sensitivity, reply:

(16) *Not at all: if Julie was here, we would none of us be behaving so.*

We are disagreeing, certainly. But our disagreement concerns nothing objective: we simply have different conversational aims. In my imagination it is the present depravity and Julie's fastidiousness that are allowed to persist; in yours, it is Julie's fastidiousness and everyone else's eminent politeness. Neither of us can be accused of having chosen the *wrong* things to keep fixed, for it is not a matter of right or wrong. The choice is entirely free.

The point may be put as an explicit objection to a possible worlds semantics for such messages. Any such account will have to place some restrictions on which 'antecedent' worlds are to count as suitably 'close'. In the present example, which worlds are 'closer'—those at which we are engaged in the present festivities, or those at which we are respectful of Julie's sensitivity? There seems no way to answer the question. The very idea of a 'closeness' metric is ill-conceived: it would have us place on a single, objective scale the answers to what is after all a *subjective* question. We are free to reason in such matters howsoever we chose, and for whatever conversational ends.

E. J. Lowe (1990, 1991) agrees with almost all of this (as does Jackson, 1991a; cf. chapter 4 below, §3), but seeks to save the truth-conditional treatment in the following way. He insists that which worlds one is treating as 'close' in one's thinking is itself a *factor* of one's message, so that (15) and (16) above are each ambiguous. (15), in particular, is ambiguous between my obviously intended interpretation (true), and an interpretation on which the worlds at which we are respectful of Julie's sensitivity are 'closer' than the worlds at which we are engaged in the present festivities (false). It seems to me that this cannot be the right diagnosis. The postulation of ambiguity is after all entirely *ad hoc*, made for no other reason than to rescue truth (at any cost). To the native English speaker, meanwhile, the obvious reaction will surely be that what Lowe insists on building into the message *itself* here is rather a part of the reasoning lying *behind* it. (I take Bennett as in agreement on this point; 2003, pp. 351f.) And how is Lowe to explain the apparent fact that you, in your affirmation, are *disagreeing* with me in mine (albeit about nothing objective)? On his view, we are simply talking past one another—and by his own admission, too (1991, p. 128)—making it very strange that you should see fit to prefix your assertion with 'Not at all'.

Both of our messages are readily intelligible. And neither one of us is guilty of any intellectual error. So certainly *falsehood* is out of the question in both cases. But why go further and insist on *truth*? All that is needed for communication is that the hearer twigs what the speaker is up to, and that is perfectly possible without the speaker having to be understood as affirming a (putative) *claim of fact*.

4. Tense differences

The tense of a message, on the view that I am defending, is a piece of temporal information. Thus messages that differ only in tense cannot require a different semantic treatment. After all, if messages that differ only in tense are affirmed at suitably different times, the objective substance may after all be identical. To borrow McTaggart's terminology (1908), a difference in tense means a different location in the A series (past, present, future), but that may yet be the *same* location in the B series (earlier, later).

To take a simple example, suppose I affirm the natural interpretation of (7) on a Monday:

(7) *I am in Oxford (at the moment).*

Let Tuesday come, and now suppose that I want to reaffirm my earlier message. I will of course produce (8):

(8) *I was in Oxford (yesterday).*

My later message comprises the same notional subject (me), and the same conceptual condition (being in Oxford). The tense is different—past rather than present—but chosen precisely so as to locate the same (B series) point in time.

Tight connections will accordingly be observed to hold between messages that differ only in tense. In particular, any argument for one of some such pair will be an equally good argument for the other (modulo tense in the premises). For example, consider the following line of reasoning:

> Terry is in Oxford (at the moment).
> Julie is in Oxford (at the moment).
> Therefore, at least two people are in Oxford (at the moment).

And now consider the following line of reasoning, entertained the next day:

> Terry was in Oxford (yesterday)
> Julie was in Oxford (yesterday)
> Therefore, at least two people were in Oxford (yesterday).

The native English speaker readily discerns in these later words none other than the very same argument as before. The purely formal differences in the words are there merely to allow for the difference in time—a difference which is of course quite irrelevant as far as the reasoning is concerned.

Consider now the following line of reasoning, entertained on the morning of the 22nd November, 1963 (the day of Kennedy's assassination):

> Oswald is poised to shoot Kennedy, but there is also a back-up shooter behind the grassy knoll, and several CIA agents on the overpass with the same intention.
> Therefore, if Oswald doesn't shoot Kennedy, someone else will.

And now consider the following line of reasoning, entertained on any subsequent day:

> Oswald was poised to shoot Kennedy, but there was also a back-up shooter behind the grassy knoll, and several CIA agents on the overpass with the same intention.
>
> Therefore, if Oswald hadn't shot Kennedy, someone else would have.

If the relocators' view is right, then we have here—just as in the Oxford case above—the very same reasoning as before. The purely formal differences in the words, again, are there merely to allow for the difference in time.

I should like to be able to say, on independent grounds, that we *do* have the very same reasoning in these two passages. Certainly it is not uncommon for native English speakers to surmise as much. But if I take this claim as a premise, I will doubtless appear to be begging the question. I will settle for a weaker argument, then: that the *prima facie* similarity between the arguments in these two passages is just so much *prima facie* evidence in the relocators' favour. To put it another way, the present consequence of the relocators' view—that we have nothing less than the *same* argument in each case (indeed, in *all* such pairs of cases)—is an extremely welcome one. For as the relocators conclude, so the native speaker strongly suspects prior to any such careful investigation.[20]

Though I have acknowledged that this argument is inconclusive, I do not mean to be suggesting that it is a weak one. Quite the contrary. The *prima facie* similarity of the before and after reasoning above is *very* striking, and it is only for fear of seeming to beg the question that I refrain from asserting identity outright. It is incumbent upon anyone who would deny the relocation thesis, meanwhile, to point out some salient difference (beyond the acknowledged temporal one) between the two cases. For my part, I can discover none. This is a theme that will recur in the next two chapters.

[20] Something like this argument has been around in the literature for while. See e.g. Ellis (1984), Strawson (1986), Bennett (1988).

Chapter 3: Stand or Fall

1. Preamble

I now turn, in this chapter and the next, to a defence of the relocation thesis against the attacks of Jackson and Bennett. It will help the discussion to have some theoretically neutral labels for the three kinds of conditionals upon which the controversy centres. Recall our now familiar Oswald exemplars:

(1) *If Oswald doesn't shoot Kennedy, someone else will.*

(2) *If Oswald hadn't shot Kennedy, someone else would have.*

(3) *If Oswald didn't shot Kennedy, someone else did.*

Following Bennett, I will call m_1 a *Does-will* conditional, m_2 a *Had-would* conditional, and m_3 a *Did-did* conditional (ignoring variations of negation in this terminology).

Bennett was himself briefly a relocator, classifying Does-will conditionals with Had-woulds rather than Did-dids. At the time, he wrote:

> If it is now true to say
>
> If Booth hadn't killed Lincoln, someone else would have
>
> then at some time before the killing it would have been true to say
>
> If Booth doesn't kill Lincoln, someone else will.
>
> Furthermore, if the latter 'indicative' were never correct, then the former 'subjunctive' is not correct. So they stand or fall together; they are equivalent except for the difference of temporal standpoint…
>
> (1988, p. 522)

Later (2003, §6), he phrases this same point in terms of 'conditions of acceptability' (because, I surmise, he no longer believes that Does-will conditionals have truth-values). He labels the point 'Stand or Fall'. (The reader may note the similarity with the argument of the previous chapter, §4.)

In this later work, Bennett sets out to prove that the relocation thesis is false, and to re-establish the traditional classification. His arguments against the former are presented in the form of objections to 'Stand or Fall'—three smaller

objections in §94, and one larger one in chapter 22. One reviewer of the book writes that these arguments constitute the most significant contribution of the work (the rest being mainly, as its author intended, a guide to existing literature), and reports his belief that they are convincing (John Burgess, 2004, p. 570). I remain unconvinced, and aim, in what follows, to prove that none of them is successful.

Before proceeding with the particulars, it is worth mentioning a general point: nowhere in his published writing on the topic does Bennett even state, let alone engage with, the relocators' views about tense—either in general or in the particular context of conditionals. As a result, his treatment of the relocation thesis remains unhelpfully superficial—both when he endorsed it and when he later recanted. First and foremost, the relocation thesis is not a claim about truth-conditions or acceptability-conditions, but a claim about *tense*—as I hope to have shown in the previous two chapters.

2. Bennett's preliminary attacks

In §94 of his 2003 book, Bennett launches three small-scale attacks on Stand or Fall. For exegetical reasons, the first—which concerns the phenomenon of Gibbardian stand-offs—will not be addressed until the next chapter (§4). For now, I tackle the second and the third.

The third objection, first, is easily met. Bennett writes:

> The third warning about Stand or Fall arises from the discussion of §89, which shows how [a Had-would conditional] can be true even though at no time was [the corresponding Does-will] even slightly plausible for any reasonable person. If you had bet on heads you would have won, but there was never any basis for accepting 'If you bet on heads, you will win'.
>
> (p. 243)

Given the premise that the coin landed on heads, it follows that if you had bet on heads, you would have won. Before the event, no one has been given this premise, and so no one is in a position to infer the corresponding Does-will. This is perfectly consistent with the claim that such conditionals differ only in tense. The difference in acceptability is explained by the innocent fact that we know something after the event that we didn't (and couldn't) know beforehand.

I should have thought it obvious that this consideration does not establish any semantic difference between the two conditionals. Indeed, *it is in Bennett's own interests* that this be so, for otherwise it would *equally* establish that Does-wills and their parallel Did-dids are semantically distinct, contrary to his own classificatory doctrine: given the premise that the coin landed on heads, one can also justly infer that *if you did bet on heads, you did win*; thus the Did-did conditional is justified afterwards, although at no time was the Does-will—that *if you do bet on heads you will win*—even slightly plausible for any reasonable person.[21]

Bennett's second objection can likewise be met. Here is the worry in full:

> The second warning concerns cases where Stand or Fall does not apply for a reason to which Mark Lance has drawn my attention. When there are two recent inconspicuous forks from actuality to [the antecedent], the slightly later one leading to [the consequent] while the earlier does not, we do not count [the relevant Had-would conditional] as true. We *could* award the 'closest' palm to the world with the more recent of the forks—we could but we do not, as Pollock's example showed (§83). However, at a moment between the two forks there is a sound basis for accepting [the corresponding Does-will]. Here is an example. Sheep are checked first for weight and then for health; if they fail for weight they go into the meadow, if for health into the barn; if they pass both they go to the slaughter-house. Consider now a sheep that squeaks through on weight and on health; we do not say that if it hadn't been picked for slaughter it would have gone to the barn; yet during the minute between the two checks there is a sound basis for saying that if it isn't picked for slaughter it will go to the barn, and no basis for saying that if it isn't it won't.
>
> (p. 243)

This objection can in fact be turned on its head: far from posing any threat to the relocators' tense proposal, these sorts of cases show up the inability of Bennett's alternative theory to account for the full range of phenomena.

Everyone can readily make sense of the following piece of reasoning:

[21] Such considerations would also establish a difference between the natural interpretation of "The coin landed on heads" and the future interpretation of "The coin will land on heads"—the former being true afterwards although the latter is quite implausible beforehand. Now while I believe that there *is* a difference here (though not for this reason), it is a tenet of the traditional view that there is *not* (recall chapter 1, §4). Here is another reason, then, why Bennett cannot consistently deploy this form of reasoning here.

The sheep had passed on weight.
So, the slaughter-house and the barn were the only remaining possibilities.
Therefore, if it hadn't been picked for slaughter, it would have gone to the barn.

Indeed, we can all see that this argument is *impeccable*. (Bennett's factual claim, meanwhile, that we 'do not say' its conclusion after the event, is simply untrue.) Also impeccable is the following argument:

The sheep had yet to go through the weight check.
So, the slaughter-house, the barn, and the meadow were all still possibilities.
Therefore, if it hadn't been picked for slaughter, it would have gone either to the meadow or to the barn.

Bennett is committed to there being only *one* Had-would conclusion after the event, only *one* legitimate place from which to fork from actuality. He happens to opt for the earlier fork; but whichever one he chooses, he will be unable to account for one of the above pieces of reasoning.

Bennett presents this unfortunate consequence of his view as a difficulty for his opponents. Not only is this attack question-begging, but the ready intelligibility of the two pieces of reasoning above provides extremely compelling evidence in his opponents' favour. Clearly there are, after the event, *two* salient past points behind which one might wish to retreat: the health check and the weight check. Thus a Had-would conditional—a past past tensed projective judgement, on the relocators' story—will be taking into account all of history up until just before one or other of these two points, whence the intelligibility of *both* pieces of reasoning.

And of course *at the time* one can run exactly the same pieces of reasoning in the present tense:

The sheep has (just) passed on weight.
So, the slaughter-house and the barn are the only remaining possibilities.
Therefore, if it isn't picked for slaughter, it will go to the barn.
The sheep has yet to go through the weight check.
So, the slaughter-house, the barn, and the meadow are all still possibilities.
Therefore, if it isn't picked for slaughter, it will go either to the meadow or to the barn.

Appreciation of the full range of reasoning available after the event, therefore, provides further evidence in the relocators' favour, and a difficulty for Bennett's rival view.

3. Bennett's main attack

In his chapter 22, Bennett argues that *some* bases for accepting Does-will conditionals do not support the corresponding Had-woulds after the event—so that, although Stand or Fall may seem plausible at first sight, it is nevertheless quite mistaken. He attempts to justify this conclusion with the following example.

> We are watching a black earth-to-sky pillar of cloud approaching your villa outside Marrakesh; I ignorantly remark 'I hope it doesn't rain—that would make our picnic uncomfortable', and you—knowing more—reply sardonically:
>
> If (A) it doesn't rain, (C) the picnic will be impossible.
>
> …
> Your [evidence] is what you see to the east, and some general views implying that the two best diagnoses of what you see are that a rain-cloud approaches and that a sandstorm approaches; that, conjoined with (A) the hypothesis that it will not rain, implies that the best explanation for the cloud part of [your evidence] is that a sandstorm approaches, which implies that (C) we cannot have a picnic. …
> In this case, the corresponding [Had-would] conditional has no support. If it does rain, none of us will think 'If it hadn't rained, the picnic would have been impossible'. Given that it does rain, the closest worlds at which it doesn't rain contain no dark cloud with that trajectory; they don't contain one with that trajectory but carrying sand. If at the relevant time the weather god had been flipping a mental coin to decide whether to afflict us with a rainstorm or a sandstorm, and it did rain, it *would* have been true that if it hadn't rained the picnic would have been impossible because of the sandstorm. But what would make that true is not the basis on which you accepted your [Does-will] conditional. My thesis is not that if the [Does-will] is acceptable the corresponding [Had-would] is false, but rather that [the present] basis for the [Does-will] does not support the corresponding [Had-would].
>
> (pp. 345f.)

My contrary position is that the given basis supports either *both* the Does-will conditional *and* the Had-would, or *neither*. It is my further belief that it supports *both*, but I need not press this here—the important point is just that Bennett has provided us with no counterexample to Stand or Fall, one way or the other. I concede, then, that there may be a question about whether these conditionals both stand or both fall, but that they stand or fall together is, I contend, undeniable.

Let us take the case *against* the conditionals first. Bennett's objection to the Had-would, after the event, is based on considerations of physical possibility. He phrases it in terms of the possible worlds semantics that he favours, but one needn't put it in this (controversial) way. The worry is just this: given that the approaching cloud was rain and not sand, there quite simply *couldn't* have been a sandstorm, *whether it had rained or not* (setting aside unlikely worries about coin tossing weather gods and the like). Bennett concludes, on the strength of this objection, that the Had-would conditional is untenable.

This worry, however, applies just as much to your Does-will conditional before the event: given that the approaching cloud is rain and not sand, there quite simply *can't* be a sandstorm, *whether it rains or not*. If the Had-would conditional is untenable, then so is this Does-will.

Now let us turn to the case *in favour* of these conditionals. The argument in support of your Does-will, before the event, reads something like this:

> The approaching cloud is either rain or sand.
> Either way, the cloud will get here.
> So, if it doesn't rain, it will be because it wasn't a rain-cloud approaching, but a sandstorm.
> So, if it doesn't rain, there will be a sandstorm.
> The picnic will be impossible in a sandstorm.
> Therefore, if it doesn't rain, the picnic will be impossible. [22]

[22] This may not be quite the reasoning that Bennett has in mind in support. Recall his words: "Your [evidence] is what you see to the east, and some general views implying that the two best diagnoses of what you see are that a rain-cloud approaches and that a sandstorm approaches; that, conjoined with (A) the hypothesis *that it <u>will</u> not rain*, implies that the best explanation for the cloud part of [your evidence] is that a sandstorm approaches, which implies that (C) we cannot have a picnic" (my emphasis). If we take him at his word, Bennett is here offering a slightly different argument from the one just given. Crucially, however, it is also for a *different* conclusion—namely, the conclusion that *if it <u>will</u> not rain, the picnic will be impossible*. This is not, after all, the relevant Does-will conditional; it is not a Does-will conditional at all, but (to continue the terminology in the natural way) a *Will*-will conditional.

For my part, I fail to see what is wrong with this reasoning. It is, as Bennett says, somewhat sardonic. But it is readily intelligible, and each step is surely quite unobjectionable. (This is not to say that I see anything wrong with the case *against* discussed above. The truth of the matter, it seems to me, is just that there are different ways one might wish to reason, from different premises, and with different overall communicative intentions—recall the previous chapter, §3. I do not share what would seem to be a background belief of Bennett's here: that there is one and only one *right* or *acceptable* thing to say.)

Whatever one thinks about the propriety of this reasoning, it is perfectly possible to entertain it after the event as well as before. To ensure no unwanted distractions, let us keep our epistemic situation constant across the times. Suppose then that, while still uncertain as to whether the approaching cloud is rain or sand, we decide to cut our losses and cancel the picnic. We remain, instead, holed up in your villa for the day—in the basement, let us say, so as to remain wholly ignorant of the weather outside.

At the end of the day, you may recast the reasoning in favour of your earlier Does-will conditional as an argument—now—in support of the corresponding Had-would; thus:

> The approaching cloud was either rain or sand.
> Either way, the cloud would have got here.
> So, if it hadn't rained, it would have been because it wasn't a rain-cloud approaching, but a sandstorm.
> So, if it hadn't rained, there would have been a sandstorm.
> The picnic would have been impossible in a sandstorm.
> Therefore, if it hadn't rained, the picnic would have been impossible.

If the earlier argument was acceptable, how can it be that this argument is not? I cannot see that we have anything other than the same reasoning both times, as impeccable after the event as it was before.

Examination of the text reveals two reasons why Bennett might have been moved to this asymmetric treatment. In his discussion, unlike in mine above, our

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The difference between "If it *does* not…" and "If it *will* not…" is a subtle one, perhaps, and easy to miss. But there *is* a difference (cf. Edgington, 2003, p. 399; my chapter 6 below, §§1-3). Supposing that it *will* not rain is tantamount, in the present scenario, to supposing that rain is not on the way, i.e. that the approaching cloud is not rain—and hence, by an easy inference, that it is sand. Thus Bennett's argument for this *different* conclusion certainly seems quite reasonable. But this is not the argument that we should be interested in.

epistemic situation does not remain constant across the two times: after the event, but not before, we know that the approaching cloud was in fact rain and not sand. Given this knowledge, we are no doubt very unlikely to want to use the first premise of the above argument—that the approaching cloud was either rain or sand—in any piece of reasoning, for we now have much fuller information. This asymmetry, however, is plainly an artefact of Bennett's way of describing the scenario, and can afford us no conclusions of semantic significance. It is better, I submit, to insist that our epistemic situation remains unchanged throughout, to avoid any such unwanted differences complicating the discussion.

The second reason emerges from the following comment at the end of the next section:

> As I feel the rain falling, I may think: 'Thank God the other diagnosis was wrong! If it hadn't been—if the cloud hadn't been bringing rain—we would now have sand flaying the skin off our faces.' That, though, is playing with a fantasy, not asserting a subjunctive conditional about what would have ensued if the world had gone differently.
>
> (p. 350)

Bennett's objection to the argument propounded above, then, would seem to be that it is *playing with a fantasy*. I am quite happy with describing it thus. But now, it is no less fantastic after the event than it was before. In each case sand enters the picture only through a *thought of ours* (to borrow Bennett's phrase; *ibid*.). The sandstorm is imaginary both times: the facts are that there is / was no sand cloud anywhere in sight. And in any case, *what can be wrong* with thus playing with a fantasy? Why is this an *objection* to the reasoning? I repeat my conviction that the argument, both before and after the event, is intellectually unassailable. And however that may be, no objection that applies later could fail to apply earlier—and Bennett has given us no reason to suspect otherwise.

4. Summary

In the remainder of chapter 22, Bennett defends a number of other claims concerning the types of bases for accepting conditionals of the various kinds, though in fact it is only the single rain-sand example discussed above that poses any threat (via Stand or Fall) to the relocation thesis. Towards the end of the chapter, Bennett sums up his response to the thesis thus:

> The relocation thesis says that the Does-wills among indicative conditionals ought to be classified with the subjunctives on the grounds—first and foremost—that each such indicative stands or falls with the corresponding subjunctive: " 'If P were the case, Q would be the case' is true if and only if at some earlier date . . . 'If P is the case, Q will be the case' was assertible" (Woods 1997: 84). This bold biconditional has turned out to be false in each direction. The 'nearby forks' phenomenon yields Does-wills that do not go with Had-woulds (§94), and an even richer harvest is provided by the multitude of Does-wills that have explaining-E bases[23]. And Had-woulds that do not go with Does-wills are provided by the 'indeterminacy and actual truth' phenomenon (§94). Further trouble is made for the relocation thesis, though not for Woods's biconditional, by the existence of indicatives that stand or fall with the corresponding subjunctives but are not of the Does-will form. The relocation thesis lies in ruins.
>
> (p. 350)

I sum up my counter-response as follows. The relocation thesis says, first and foremost, that Does-wills and their corresponding Had-woulds differ only in tense—thoughts about truth and assertibility (as in Woods' formulation quoted by Bennett above) are peripheral to this central issue. Even so: Firstly, the 'nearby forks' phenomenon does *not* yield Does-wills that fail to go with their corresponding Had-woulds; see my discussion of Bennett's sheep example above (§2). In fact, this phenomenon provides a serious objection to Bennett's theory, which insists that we are entitled to fork from only one place after the event. Secondly, when Bennett talks of the multitude of Does-wills that have 'explaining-E' bases, he is referring back to the lone rain-sand example, discussed in the previous section, with which he purports to establish this general claim. Bennett's objection here hangs entirely upon the thesis that such bases do not support the corresponding Had-woulds; as we have seen, the example does not justify this conclusion.

Had-woulds that do not 'stand or fall' with their corresponding Does-wills, thirdly, may after a fashion be provided by the 'indeterminacy and actual truth' phenomenon (e.g. the coin toss example; §2 above), but this has a semantically

[23] I.e. bases like that in the rain-sand example discussed above. Bennett distinguishes three types of bases for accepting conditionals (§§132-133), of which 'explaining-E' bases are just one. The other two have no bearing on the present discussion, however, and are ignored here for the sake of simplicity.

innocent explanation. Indeed, if it didn't, Bennett's own rival classification would be defeated too, since the Did-did conditionals here sometimes 'stand or fall' with the Had-woulds. Fourthly and finally, the existence of 'indicative' conditionals not of the Does-will form that, in this way, 'stand or fall' with the parallel Had-woulds is no threat whatsoever to the relocation thesis: Did-dids and their parallel Had-woulds clearly differ in meaning, even though sometimes (only sometimes) some such pairs follow from the same set of premises. We can conclude nothing from this about the relationship between Had-woulds and Does-wills.

The relocation thesis, therefore, far from lying in ruins, emerges from this attack without a scratch, and even having delivered its assailant a powerful blow along the way.

Chapter 4: Gibbardian Stand-Offs

1. Introduction

The phenomenon to be discussed in this chapter was first introduced into the literature by Allan Gibbard (1981), whence the name. I shall introduce the point with his original Sly Pete story, but once one grasps the recipe it is easy to generate more examples of the same kind.

Sly Pete and Mr Stone, the story goes, are playing poker aboard a Mississippi riverboat. Mr Stone has just bet up to the limit of the hand, and it is now up to Pete to call or to fold. Informant A does not know what is in either player's hand, but knows that Sly Pete is determined to win, and, moreover, that he is privy by stealth to the contents of his opponent's hand. Informant B, by contrast, knows nothing of the cheating, but does know the contents of both hands. He knows that Pete's hand is the weaker.[24]

Consider now the following three pieces of reasoning—the first two entertained by someone in informant A's position (not that anyone in such a position will entertain both at the same time), and the last entertained by someone in informant B's position.

(*i*) Sly Pete is determined to win, and knows whose hand is better.
So, if he does not hold a winning hand, he will not call.
Therefore, if he does call, it will be with a winning hand:
If he calls, he will win.

(*ii*) If Pete calls with a losing hand, he will lose.
He may well hold a losing hand.
Therefore, if he calls, he may lose.

(*iii*) Sly Pete holds a losing hand.
So, if he calls, it will be with a losing hand:
If he calls, he will lose.

[24] The labels 'informant A' and 'informant B' are from Frank Jackson (1990, 1991a), and I borrow them here to facilitate engaging with his discussion—since it is to Jackson's views and arguments that this chapter is primarily opposed. The labels strike me as potentially misleading; what distinguishes A from B is the information that they each *have*, rather than the information they *impart*.

For my part, I am unable to see anything wrong with any of these arguments. The premises are given to us from the set-up, and every one of the inferences seems impeccable. Yet the conclusions of (*ii*) and (*iii*) each seem to contradict the conclusion of (*i*): thus there is a stand-off between the conclusion of (*i*) and the conclusions of each of the other two.

If this is right, then it follows that there is no one right answer to the question of what will happen if Sly Pete calls. Eyeing (*i*) and (*iii*), we can see that different people, with different information, can quite reasonably reach opposite conclusions. Comparison of (*i*) with (*ii*), meanwhile, establishes that even people with the *same* information may yet reach contradictory conclusions. I explain this by repetition of my earlier result (chapter 2, §3): that Does-will conditionals are *subjective* messages, unfit to be given truth-conditions. Here, then, is further support for that earlier claim. The present example, in fact, is in all essentials just like the example that I used there: the proponent of argument (*i*) is keeping fixed Sly Pete's illicit knowledge and determination to win, while the proponents of arguments (*ii*) and (*iii*) are instead keeping fixed the contents of the hands (known in the case of (*iii*), but unknown in the case of (*ii*)). As before, we are obliged to keep *something* fixed, but we are not obliged to keep one thing fixed rather than any other. It is not *wrong* to choose the hands rather than the cheating, or the cheating rather than the hands: the choice is entirely free.

Suppose now that Pete is shot dead before he has had the chance to call or fold. And consider the following three pieces of reasoning as entertained following this dramatic turn of events—the first two, again, by someone in informant A's position, and the last by someone in informant B's position.

(*i′*) Sly Pete was determined to win, and knew whose hand was better.
So, if he hadn't held a winning hand, he wouldn't have called.
Therefore, if he had called, it would have been with a winning hand:
If he had called, he would have won.

(*ii′*) If Pete had called with a losing hand, he would have lost.
He might well have held a losing hand.
Therefore, if he had called, he might have lost.

(*iii′*) Sly Pete held a losing hand.
So, if he had called, it would have been with a losing hand:
If he had called, he would have lost.

The natural thought here is surely that we have, in each of these three cases, the exact same reasoning as before, the formal differences there merely to allow for the difference in time. And so it pans out on the relocators' story: the premises and conclusions of (*i*)-(*iii*) are all present tensed, while the premises and conclusions of (*i′*)-(*iii′*) are all past tensed (or rather past past), and otherwise identical (cf. chapter 2, §4). Had-would conditionals, then, are likewise subjective and lacking in truth-conditions.

The phenomenon of Gibbardian stand-offs has been taken—by both Jackson and Bennett—to provide evidence *against* the relocators' classification. These authors agree with me that stand-offs can occur with Does-will conditionals, and Bennett, like me, concludes from this that such messages are subjective and lacking in truth-conditions. The apparent similarity between (*i*)-(*iii*) and (*i′*)-(*iii′*) notwithstanding, however, both authors deny that stand-offs can occur with Had-would conditionals. If this were right, it would surely be compelling evidence against the relocators' view. I believe it is not right, however, and it is with the defence of this belief that the present chapter is concerned.

2. Jackson on Does-will conditionals

Jackson (1990) frames the discussion in terms of justified assertion: if informant A says that *if Sly Pete calls, he will win*, it will on his view be "with full justification" (p. 143), and likewise for informant B and the opposite conditional (that *if Pete calls, he will lose*). For my part, I do not know what it is for an assertion to be fully justified, but I trust we all have a firm grasp on what it is for a conclusion—asserted or not—to follow from a set of premises. Thus I am happier discussing matters in terms of the reasoning.

In these terms, Jackson's position is just that arguments (*i*) and (*iii*) above are impeccable—and on this matter we are in agreement. But what of argument (*ii*)? Jackson does not consider it in this earlier article, but touches on it in a later one (1991a). Here his position would seem to be that there is something wrong with it (though he does not tell us what), for he writes: "For me it is clear that someone who knows that Sly Pete is cheating while having no opinion on whether Pete's hand is the stronger [i.e. someone in informant A's position] has only one way to answer the question, What will happen if Pete calls? namely, by saying that Pete will win." (p. 142) If argument (*ii*) was as impeccable as argument (*i*), however, then someone in informant A's position would have *two* ways to answer

this question; thus I take Jackson to be maintaining that argument (*ii*) is not on so firm a footing as the other.

For this position to be maintained, we must be told what is wrong with argument (*ii*), something which Jackson nowhere attempts to do. The argument, meanwhile, continues to strike me as quite unassailable. What is more, when Gibbard conducted "informal polls" concerning whether or not someone in informant A's position assents to the claim that *if Sly Pete calls he will win*, he found that people *disagreed*. Most, he reports, did assent, but some demurred (*op. cit.*, p. 228). I surmise that those who assented were doing so on the grounds of something like argument (*i*), and that those who did *not* were moved by something like argument (*ii*). (Recall that on my view there is simply a free choice here of how to reason.) However that may be, Jackson has it that the members of the latter group are all somehow *in error*—either in their reasoning or in their understanding of English. But where, to repeat the challenge, is the supposed error? Knowing nothing about the hands, I am surely free to consider, before the event, that Sly Pete may well have a losing hand, and that if he does, he will lose if he calls. I cannot see that I am deploying any false premises, or making any faulty inferences, if I withhold assent from the winning conditional on these grounds.

3. Jackson on Had-would conditionals

The previous section is meant to provide a dent in Jackson's argument, but now we come to the real crux of the issue. When we switch to the Had-would conditionals, Jackson's attitudes towards the various arguments in question (as set out on p. 42 above) change. In his 1990 article, his position was in effect that arguments (*ii*′) and (*iii*′) are impeccable, but that argument (*i*′) is not.

Again, Jackson does not frame the point in terms of the reasoning: he writes that the information about the hands "warrants the assertion" that *if Pete had called he would have lost*, but that the information about the cheating does *not* warrant the assertion that *if Pete had called he would have won* (p. 143).

Jackson's objection to argument (*i*′) runs thus:

> … consider the matter from the perspective of informant *A* who is in possession of … the information that Sly Pete is cheating by knowing his opponent's hand. … this information is neutral concerning who has the stronger hand, so let us suppose that *A* gives equal credence to the

> hypothesis that Sly Pete's hand is stronger, and to the alternative hypothesis that it is weaker than his opponent's. What *A* can be sure about though is that Sly Pete will do the right, in the sense of the most rewarding, thing. … But what is the right thing for Sly Pete to do? The answer depends on whether or not he has the stronger hand. If he has the stronger hand, the right thing to do is to call; if he has the weaker hand, the right thing to do is to fold. Hence, informant *A* gives a 50 per cent credence to calling being the right action for Sly Pete, and 50 per cent to folding being the right action for Sly Pete. But what makes calling the right action for Sly Pete? [**X**] Well, he had two options – to call or to fold, and calling is best if it had or would have had the better consequences of the two. But that is the case precisely if had Sly Pete called, he would have won. That is to say, the right credence for informant *A* to give 'if Sly Pete had called, he would have won' is the same as the credence he gives to calling being the right thing for Sly Pete to have done, which is 50 per cent. The upshot is that although informant *A*'s information that Pete is cheating makes 'if Sly Pete called, he won' very highly assertible, it leaves the credence of the corresponding past subjunctive unchanged at 50 per cent.
>
> (pp. 143f.)

This argument is in all essentials just argument (*ii′*)—the intermediate notion of 'the right thing' for Pete to do can be dispensed with without any cost to the reasoning. And it is, I take it, a faultless argument. But how does the possibility of this reasoning establish that there is anything *wrong* with argument (*i′*)? That the conclusions cannot both be true I allow—that, after all, is in the very nature of a stand-off. If we keep fixed Pete's illicit knowledge and determination to win we get one answer, and if we keep fixed the contents of the hands we get another (agnosticism if, like informant A, we are ignorant of said contents, and a losing conditional if, like informant B, we know Pete's hand is the weaker). Thus it is not enough for Jackson merely to lay out argument (*ii′*), or any variant thereof: he needs to show us *directly* that there is something wrong with argument (*i′*).

This need is all the more keenly felt when we turn back to the Does-will conditionals. Jackson begins his argument against the relevant Had-would in the present tense. At the point I have marked above with an '**X**' in square brackets, however, he suddenly switches, without warning, to the past tense. Knowing his desired conclusion, we can see why he does this; but there is no *intellectual* basis for the switch. And notice what happens if we remain in the present tense:

> But what makes calling the right action for Sly Pete? Well, he HAS two options – to call or to fold, and calling is best if it WILL have the better consequences of the two. But that is the case precisely if, if Sly Pete CALLS, he WILL win. That is to say, the right credence for Zack to give 'if Sly Pete CALLS, he WILL win' is the same as the credence he gives to calling being the right thing for Sly Pete to DO, which is 50 per cent.

Thus Jackson's argument for giving only 50 percent credence to the Had-would conditional after the event is an equally good argument for giving only 50 percent credence to the Does-will before the event. There is no difference beyond the purely temporal one.

My reaction in the Does-will case is the same as my reaction in the Had-would case: There is nothing wrong with argument (*ii*), nor with Jackson's more complicated version of it. But that doesn't prove that there is anything wrong with argument (*i*). The reasoner is free, before the event as after, to keep fixed either the hands or the cheating. And that is why, as Gibbard noticed, reactions to informant A's Does-will conditional vary.

In his 1991a, Jackson changed his position to one perhaps even more startling. He maintains there that whether one is keeping the hands fixed or the cheating fixed is an informational ingredient of one's conditional message, so that sentence (1) below is ambiguous:

(1) *If Pete had called he would have won.*

(1), on Jackson's later story, tolerates both a cheating-fixed interpretation (true) and a hands-fixed interpretation (false). He was moved to this position by Lowe (1991), and I have already said everything I am going to say against that view in the context of an earlier discussion (chapter 2, §3).

However that may be, it should by now be clear that any reason for postulating such ambiguity in (1) is an equally good reason for postulating such ambiguity in (2):

(2) *If Pete calls he will win.*

For everyone in informant A's position faces, before the event, the exact same choice of what to keep fixed: the cheating or the hands. (Lowe is at least consistent in postulating the same ambiguity both times.) At several places and in diverse ways, Jackson asserts that the case is different before the event, and

concludes that the relocators' classification is wrong. But I can discover no arguments in support of any of these assertions.

4. Bennett on the difference between Does-will and Had-would

The situation is much the same with Bennett's argument for the same conclusion. To see this, we must first familiarize ourselves with his novel stand-off scenario:

> Top Gate holds back water in a lake behind a dam; a channel running down from it splits into two distributaries, one (blockable by East Gate) running eastwards and the other (blockable by West Gate) running westwards. The gates are connected as follows: if east lever is down, opening Top Gate will open East Gate so that the water will run eastwards; and if west lever is down, opening Top Gate will open West Gate so that the water runs westwards. On the rare occasions when both levers are down, Top Gate cannot be opened because the machinery cannot move three gates at once.
>
> Just after the lever specialist has stopped work, Wesla knows that west lever is down, and thinks 'If Top Gate opens, all the water will run westwards'; Esther knows that east lever is down, and thinks 'If Top Gate opens, all the water will run eastwards'.
>
> (2003, p. 85)

I agree that we have a genuine stand-off here: in considering what will happen if Top Gate opens we are obliged to keep fixed either east lever's position or west lever's position, but there is no obligation to keep one fixed rather than the other.[25] Esther is free to reason her way, and Wesla is free to reason her way. Neither has made any error. Be that as it may, the important point here is that these Does-will conclusions form a genuine stand-off pair if and only if there is likewise a stand-off between the corresponding Had-would conditionals after the event.

Bennett denies this consequence of the relocation thesis, and this is precisely his first objection to Stand or Fall (discussion of which was postponed in §2 of the previous chapter):

[25] I am assuming, tacitly, that we will all keep the workings of the machinery fixed, since that is built into the scenario as Bennett intends it. But we needn't, of course: there is nothing to stop someone with knowledge of both levers' positions keeping them both fixed, and concluding that if Top Gate opens, it will be because the machinery has unexpectedly moved three gates at once, so that the water will flow in *both* directions.

> First, do not infer from Stand or Fall that [Had-would] conditionals can enter into stand-offs such as we found in §34 [the passage just quoted] with Does-will indicatives. …
>
> Return to the gates and the dam, at a time when both levers are down. Because they are both down, Top Gate cannot open; but later there may be truths of the form 'If Top Gate had opened . . . '. Their truth requires a recent inconspicuous divergence from actuality—this is deliberately and healthily vague. Suppose we find several A-worlds are about equally close to actuality: each diverges inconspicuously from exact likeness to α shortly before T_A—the time to which A pertains. If C obtains at all those worlds, the conditional is true. But there might instead be several suitably close worlds with C obtaining at only some of them; in which case neither A>C [the Had-would in question] nor A>¬C is true. In one scenario, west lever has been rusted into the down position for months, while well-oiled east lever was moved at 11.55 a.m.; so that 'If Top Gate had been opened at noon, all the water would have run westwards' comes out as true. We can easily devise a story in which Opened>Eastwards is true instead; or one where neither is true. Never can both be true or fully acceptable, as conflicting indicatives in a Gibbardian stand-off can be.
>
> (p. 242)

The asymmetry here, just as in Jackson's discussion of the Sly Pete case, is merely in Bennett's treatment of the two conditionals, not in any features of the conditionals themselves. To assess the Had-would conditional, Bennett insists that we think about close possible worlds, but he makes no such insistence in the case of the corresponding Does-will. But why, we may fairly ask, must we treat the two cases thus differently? (On Pendlebury's semantics, after all, they are *both* given this possible worlds treatment.) Bennett offers us no reason, and for my part I can see none.

Here is Esther's reasoning (I assume) before the event:

> Top Gate can't open when both levers are down.
> Whenever Top Gate opens, all the water runs in the direction of the gate whose lever is down.
> East lever is down.
> Therefore, if Top Gate opens, all the water will run eastwards.

Ask anyone to reconstruct this reasoning some time in the future, and they will surely produce words to this effect:

Top Gate couldn't open when both levers were down.

Whenever Top Gate opened, all the water ran in the direction of the gate whose lever was down.

East lever was down.

Therefore, if Top Gate had opened, all the water would have run eastwards.

If (as I believe) there is nothing amiss with this reasoning before the event, then there remains nothing wrong with it afterwards. Either we have a stand-off in both cases or in neither.

We have seen that Bennett rejects the Had-would conclusion after the event, even though he is happy with the Does-will beforehand. His worry, avoiding the vocabulary of possible worlds, is just this: that the situation may be such that west lever has been rusted into the down position for months, while well-oiled east lever was moved at 11.55 a.m.—so that (one assumes, though Bennett does not make this explicit) if Top Gate had opened at noon, it would have been because east lever had raised itself beforehand, causing all the water to run westwards; thus if Top Gate had opened, all the water would have run westwards, not eastwards. Bennett concludes that in such a situation Esther's Had-would belief will be false.

Whatever one thinks about this worry of Bennett's,[26] it should be clear that any conclusion it establishes in the Had-would case applies *equally* to the Does-will. Let us place ourselves at some point between 11.55 a.m. and twelve noon. Well-oiled east lever, to repeat the set-up, has only just been moved, while west lever has been rusted into the down position for months—so that, according to a consistent Bennett, if Top Gate opens at noon, it will be because east lever has raised itself beforehand; thus if Top Gate opens, all the water will run westwards, not eastwards. And so, a consistent Bennett must conclude, Esther's Does-will belief before the event is likewise false.

[26] I myself am not moved by it to abandon my belief that there is a genuine stand-off here. I maintain that we are under no obligation to keep the position of one lever fixed rather than the other. In telling us more about the set-up, it should be clear that Bennett is trying to give us just such an obligation. Learning that west lever has been rusted into its down position for months, while east lever, though presently down, is well-oiled, will naturally make many of us more *inclined* to keep the position of the former fixed rather than the latter; but I see in this natural inclination nothing so strong as an *obligation*. The reasoning underlying the opposing conclusion remains as comprehensible as ever, and I continue to see nothing wrong with it.

Bennett is evidently anxious to launch his objection at the Had-would conditional afterwards, to avoid the unwanted conclusion that such conditionals can enter into stand-offs (and must therefore lack truth-conditions)—but given his endorsement of it there, on what basis does he rule out this objection in the corresponding Does-will case? No reason is given. Examining the cases myself, moreover, I can find none. Bennett simply *treats* the two cases differently, by applying his possible worlds semantics to one and not to the other, and then presents the differences thus *inferred* from his classificatory doctrine as evidence in favour of that very doctrine. But this procedure is clearly question-begging. Thus no argument has been given against the relocators' classification.

Chapter 5: Compound Conditionals

1. Message structure

I have argued that 'future indicatives' and 'subjunctives' differ only in tense, so that these traditionally distinguished conditionals do not, after all, require a different semantic treatment. This—the relocation thesis—was then defended, in the last two chapters, against the attacks of Bennett and Jackson. I turn now to some matters of detail, with particular emphasis on questions of semantic structure. The relevance of these questions to the classificatory debate will be made plain presently.

It is commonly supposed that conditionals have a ternary structure: at the outermost level, there is an antecedent, a consequent, and an *if* operator. Indeed, this ternary analysis enjoys the status of an axiom in contemporary literature. Bennett, for example, appeals to it even in his *definition* of conditionals (2003, §2). Stalnaker asserts it in the very first sentence of his 1968: "A CONDITIONAL sentence expresses a proposition which is a function of two other propositions". The first sentence of Jackson's 1987, similarly, speaks of 'if' as a 'dyadic sentential connective'. Further examples are too numerous to mention. The analysis is enshrined in all the standard formalizations of conditionals: 'A $\supset$ C', 'A $\rightarrow$ C', 'A > C', 'A $\Box\!\!\rightarrow$ C'.

My position, to be defended in this chapter and the next, rejects this axiom. I believe that conditionals are structurally of two different kinds, neither of which has this ternary structure. 'Future indicative' and 'subjunctive' conditionals, I will argue, contain no antecedent messages (and thus nothing appropriately termed a 'consequent' either), while the remaining 'indicative' conditionals are *binary* in outermost structure, comprising (*i*) a consequent, and (*ii*) everything else (*if* operator plus antecedent). It follows that 'future indicatives' and 'subjunctives' on the one hand, and the other 'indicatives' on the other, differ in *more* than just tense. And this is my main argument against both the traditional classification and any unified treatment (e.g. that of Edgington, 1995).

My position on these matters of structure is heavily informed by Dudman's, and in the case of 'indicatives' not of the Does-will form—which will be the exclusive focus of the present chapter—is exactly in line with his. I take a slightly different line regarding the 'future indicatives' and 'subjunctives', but that must await the next chapter (see esp. §3, n. 34).

It is worth taking a moment to be clear about exactly what is at stake. It is agreed on all sides that the objects of our semantic theories have complex structures, and that one of the tasks of semantic theory is to uncover these structures.[27] Indeed, more than this, any semantic theory necessarily presupposes some such structure in the messages it deals with, and its success depends on getting that structure right. Of course, information may be divided up in all sorts of ways and for all sorts of different purposes, but as empirical investigators of, say, the English language and the things that can be said in it, we are interested in the structure imposed upon English messages *by the language itself*. More precisely, it is the structure imposed upon these messages as the price of being encoded into sentences. Our aim is to see the messages *articulated by* the sentences that encode them.

2. Compound conditionals

Consider the natural interpretation of (1):

(1) *If Socrates was a man, Socrates was mortal.*

Intuition clamours that there are, lurking somewhere very close to the surface of m_1, two component propositions—an antecedent and a consequent, namely, the natural interpretations of (2) and (3) below.

(2) *Socrates was a man.*

(3) *Socrates was mortal.*

The evidence clearly supports this intuition. Firstly, (2) and (3) are themselves component strings found in (1). More importantly, they are parsed *as sentences* in (1) under its natural interpretation—i.e., they convey in (1) exactly what they convey standing alone between full-stops (as any English speaker will readily confirm).

[27] Perhaps this structure is what some philosophers have in mind when they speak of the *logical form* of a sentence (or message). In so far as it is, however, the common ground is logical form in the *descriptive* rather than *revisionary* sense (cf. Jason Stanley, 2007, pp. 30f.)—i.e., the *intrinsic* form of the message, rather than a form imposed upon it by the logician in order to capture its entailments in a formal language. According to Stanley, "Talk of Logical Form in this [descriptive] sense involves attributing hidden complexity to sentences of natural language, complexity which is ultimately revealed by empirical enquiry" (p. 31). I don't believe that I have anything different in mind—except of course that I insist it must be a complexity borne by *messages* and not the one-dimensional sentences that convey them (recall my introduction, §1).

Likewise the natural interpretations of each of the following, and many other conditionals besides—

(4) *If Oswald didn't shoot Kennedy, someone else did*.

(5) *If Robert is here, he is invisible*.

(6) *If the rumours are true, you are not to be trusted*.

Plainly, then, these sorts of conditionals break down into an antecedent proposition, a consequent proposition, and an *if* operator. They are *compound* messages, i.e. messages compounded out of *prior* messages.

But how exactly are these three factors—antecedent, consequent, and *if* operator—combined? As we have seen, the standard assumption is that the operator acts on *both* prior messages, giving us something of the form *If*-(A,C). But why should we prefer this analysis over, say, something of the form *If*-A, C, where the *if* operator acts directly on just *one* message, making a whole unit that is then combined with the consequent?

Dudman (1986, §2) undertakes to establish this second analysis over the first, and on the following grounds. In the sentences used to convey these sorts of conditionals we find the 'if' not standing *between* the component sentences, but firmly glued to the front of just *one* of them; observe, by way of example, the stylistic variants (6)-(8) below (identical in meaning).

(6) *If the rumours are true, you are not to be trusted*.

(7) *You are, if the rumours are true, not to be trusted*.

(8) *You are not to be trusted, if the rumours are true*.

The *if* operator, Dudman concludes, attaches to just *one* of the component messages (the antecedent). The structure of these messages, at the outermost level, is therefore binary rather than ternary: *If*-A, C.

I can find only one attempt in the literature to respond to this argument. It is from Bennett (2003, §3), and is short enough to be quoted in full:

> Dudman… denies that 'if'-sentences (as he calls them) mean something of the form O_2 (A,C). Rather than seeing 'If the bough breaks, the cradle will fall' as having a 'ternary' structure in which one item ('if') links two other items (constituent sentences), Dudman argues for its being a two-

> part item, the first part of which is ‘If the bough breaks’, which he calls ‘a string beginning with “if”’, or an ‘“if”-string’, for short…
>
> Dudman writes that ‘the commonplace ternary structure would sunder this undoubted constituent’, namely the ‘if’-string. Would it? That depends on what you mean by ‘sunder’. When we regard the string as consisting of two constituents—‘if’ and a sentence we call the ‘antecedent’—we need not deny that in certain transformations the string holds together. However strong its integrity, there are things to be said about its ‘if’ component, and others to be said about the remainder of the string; it would be astonishing if there were not. The things that are separately sayable constitute much of the literature on ‘conditionals’, as we call them; all of that could not be destroyed by Dudman’s point about the ‘integrity’ of ‘if’-strings.
>
> (pp. 6f.)

The first thing to note here is that the example with which Bennett illustrates the point, being a ‘future indicative’ or Does-will conditional, is from exactly the *wrong* class. The position he is considering is not Dudman’s view of the structure of *those* conditionals, but his view of the structure of *compound* conditionals.

Amending for this detail, what Bennett goes on to say still does not address the issue. It is not in dispute that compound conditionals comprise, apart from their consequents, an antecedent and an *if* operator, and that there are things to be said about each one separately—and similarly for the sentences that encode these compounds. What is in dispute is how these three factors are combined in the outermost structure of the overall message. Is the structure of these messages—to borrow Bennett’s notation—O_2 (A,C) or O_1 (A), C? The ternary analysis sunders the constituent—here represented as O_1 (A)—that defenders of the binary analysis descry.

The question, then, remains very much an open one. For my part, I incline towards Dudman’s answer, but I think there is more to be said in defence of it than the above point about the integrity of ‘if’-strings. To this end, let us first compare ‘if’ with the coordinating conjunctions, of which English has but two: ‘and’ and ‘or’. Consider, then, (9) and (10), and the messages they encode:

(9) *Socrates was a man and Socrates was mortal*.

(10) *Either the rumours are false, or you are not to be trusted*.

Just beneath the surface of these messages we likewise find component messages, conveyed on their own by (2) and (3), and (11) and (12):

(2) *Socrates was a man*.

(3) *Socrates was mortal*.

(11) *The rumours are false*.

(12) *You are not to be trusted*.

As observed above in the cases of (1) and (6), these shorter sentences are found in the longer ones, and found there, moreover, conveying exactly what they convey standing alone between full-stops. In (9) and (10), however, in striking contrast now to (1) and (6), we find 'and' and 'or' standing *between* the pairs of prior sentences, and unable to be placed elsewhere. *These* messages, therefore, do seem to be ternary in structure. But in this regard they differ from compound conditionals.

We may put the point in the following way. If 'and' is just like 'if' in its structural implications, why do the two words have such a strikingly different syntax? That the *if* operator attaches to just *one* message, while the *and* operator combines *two* messages, is the obvious explanation for these syntactic facts.

It seems to me, however this may be, that the really decisive considerations are directly semantic. They come down, ultimately, to questions about the *meaning* of 'if'—and, since things are often made clearer by contrast, how this differs from the meaning of 'and'. First, the meaning of 'and' plainly has something to do with *combination*—whatever one says about the details. Second, the meaning of 'if', however this works out in the fine print, has something to do with *supposition*. (Here I think Edgington is quite right.) But now, the idea of *combination* essentially requires *two* things alongside it: the very two things that are being combined. The idea of *supposition*, by contrast, essentially requires just *one* thing to saturate it: the thing being supposed.

Add to this Dudman's syntactic evidence, and we have a very powerful case. 'If' attaches to just one sentence, unlike 'and' which stands between two. Likewise at the level of the message: the *if* operator combines with just one message (the antecedent), forming a whole unit that is then joined to the consequent to make a conditional message—unlike the *and* operator, which joins two messages directly. So firmly entrenched is the ternary analysis, that I fear this

conclusion may be resisted simply because it goes against that analysis. But I cannot see why anyone should treasure it over the present evidence.

3. The semantics of compound conditionals

Compound conditionals are just one instance of a general class of English message; compare the natural interpretations of the following:

(1) *If Socrates was a man, Socrates was mortal.*

(13) *Because Socrates was a man, Socrates was mortal.*

(14) *Since Socrates was a man, Socrates was mortal.*

(15) *Although Socrates was a man, Socrates was mortal.*

(16) *Whether or not Socrates was a man, Socrates was mortal.*

The overall similarity here is unmistakable, and it is natural to hope that widening our focus will aid our understanding of the local case.

Dudman's semantics for the messages of this wider class is refreshingly simple, comprising just two claims: (*i*) the consequent message is always *presumptively affirmed*, i.e. affirmed unless there is rational reason otherwise, and (*ii*) the operator (*if*, *because*, *since*, etc.) accords the antecedent message a certain *status*—exactly what status depending, of course, on the operator in question. In the case of 'because', the antecedent message is given the status of an *explanatory truth*. In the case of 'although', the status conferred is that of a *conceded but discounted truth*. With 'if', the status accorded is that of a *supposition* or *hypothesis*: 'if' announces that the speaker is *treating* the antecedent as true (or, if it is not truth-apt, as *accepted*), *whether or not it really is*.

Notice how common it is, in the wider class, for the consequent message to be affirmed outright. Of the five examples above, it is only the conditional for which this is not so—and we will see in a moment that this is not even a general feature of compound conditionals. Dudman's account is thus economical in deeming that the consequent is always presumptively affirmed.

Compound conditionals are a remarkably heterogeneous bunch. This is accounted for, on Dudman's theory, by the fact that there are all sorts of motives one might have for encumbering one's consequent message with a hypothesis. Here is a small sample:

(16) *If the Mayor is married, his wife did not accompany him*.

(17) *The dog, if it was a dog, ran off*.

(18) *If she wasn't angry before, she is now*.

Is the case of m_{18}, note, the consequent is affirmed outright, for the hypothesis presents no rational reason otherwise. The hypothesis is merely *concessionary* (cf. "Regardless of whether she was angry before, she is now"). More often than not, however, the consequent of a compound conditional is *not* affirmed outright, because being conditional upon an unaffirmed hypothesis is for the most part ample reason for a message not to count as such. What exactly *is* affirmed outright will vary from case to case. In affirming m_{17}, for example, the most a speaker can be committed to is that the *creature*—dog or no—ran off, the hypothesis being there merely to waive a possible scruple about the description. The endorser of m_{16}, meanwhile, incurs a commitment to something like the thought that none of the Mayor's female companions was (or could conceivably have been) married to him. The hypothesis that he is married is there simply to ensure a reference for the subject of the main clause.

One class of compound conditionals stands out against all the others as of especial interest to philosophers, namely the class of those in which the hypothesis is introduced so that the consequent may then be *inferred*—as, for example, in each of the natural interpretations of (1), (4), (19), and (20):

(1) *If Socrates was a man, Socrates was mortal*.

(4) *If Oswald didn't shoot Kennedy, someone else did*.

(19) *If Robert passed, everyone who took the exam passed*.

(20) *If Terry was there, then at least one person was present*.

Let us call these *inferential* conditionals.

Sometimes the inference in an inferential conditional follows directly, as with m_{20} above. Usually, however, a further implicit premise is needed. Ask the proponent of any such message *why* they say as much, and they will produce this implicit premise—presumably, in the case of m_1, that men are by nature mortal, and in the case of m_4 that someone shot Kennedy. As the case of m_{19} illustrates, sometimes there are several further premises that would get us there: that

everyone apart from Robert passed, that everyone else did better than Robert, or perhaps even that Robert was the only candidate.[28]

When an inferential conditional has a propositional antecedent and a propositional consequent, the inference in question is typically *deductively valid*: enquire after the implicit premise, and add it to the antecedent, and we will find a valid argument with those as its premises and the consequent as its conclusion. These messages, accordingly, enjoy a number of noted logical accomplishments, involving *modus ponens*, *modus tollens*, contraposition, antecedent strengthening, and transitivity. The explanation of all these accomplishments, meanwhile, is that these messages are themselves *deductive arguments* from antecedent to consequent. If there is a valid argument from P to Q, for example, then there is also a valid argument from not-Q to not-P; thus these inferential conditionals contrapose. Similarly, if there is a valid argument from P to Q, then there is also a valid argument from P and R to Q; thus antecedent strengthening holds for these conditionals. If there is a valid argument from P to Q, and another one from Q to R, then there is a valid argument from P to R; thus transitivity.

The present proposal can in fact do more than account for these logical accomplishments: it can even account for the cases in which they fail. For example, the natural interpretation of (21) below does *not* follow from m_4 (that if Oswald didn't shoot Kennedy, someone else did):

(21) *If Oswald didn't shoot Kennedy and no one shot Kennedy, someone else did.*

We have, then, a counterexample to conditional antecedent strengthening. It is readily explicable on the present theory, however. Backing up the inference in the case of m_4 was evidently the implicit premise that someone shot Kennedy. Negate this premise—as in the 'strengthening' of the antecedent in m_{21}—and the grounds for the original inference fail.

[28] Perhaps now is as good a time as any to highlight that a consequence of this view is that the Ramsey test has no relevance to these conditionals. The Ramsey test, in Bennett's words, runs thus: "To evaluate A → C I should (1) take the set of probabilities that constitutes my present belief system, and add to it a probability = 1 for A; (2) allow this addition to influence the rest of the system in the most natural, conservative manner; and then (3) see whether what results from this includes a high probability for C" (2003, p. 29). But on the present proposal, belief is strictly irrelevant, as is the constitution of one's entire belief system. The two notions involved are rather those of adopting a hypothesis and inferring a conclusion. Neither has anything to do with belief, and the only aspect of one's belief *system* that is remotely involved is the (occasional) implicit premise. So much the better, I submit, for this proposal, if only on grounds of economy. (It also avoids the notorious vagueness of Bennett's step (2).)

Consider, to a similar end, the natural interpretation of (19) below, affirmed on the basis that everyone else who took the exam passed:

(19) *If Robert passed, everyone who took the exam passed.*

And consider the natural interpretation of (22), affirmed on the basis that Robert didn't pass:

(22) *If everyone who took the exam passed, Robert didn't take the exam.*

Given the stated implicit premises (both of which can be true together), each of the above inferences is valid. By transitivity, then, we would expect (23) below to likewise encode a valid argument:

(23) *If Robert passed, Robert didn't take the exam.*

On the classical definition of validity, (23) *does* encode a valid argument (given the stated implicit premises behind m_{19} and m_{22}). But however that may be, it is patently not a *good* argument, and the present account enables us to pinpoint what is wrong with it: the implicit premise of m_{22}—that Robert didn't pass—contradicts the antecedent of m_{23}—that Robert passed. Thus the inferences of m_{19} and m_{22}, each impeccable on its own, cannot consistently be joined together in m_{23}.

It is also worth noting that, its iconic status among logicians notwithstanding, *modus ponens* does not seem to occur outside philosophical circles. It is not that there is anything wrong with it, but rather that it is strictly redundant. To see this, observe the natural interpretation of (24):

(24) *If, as we now know, Oswald didn't shoot Kennedy, someone else did.*

The proponent of m_{24}, inspection will confirm, is *already* committed to the proposition that someone else shot Kennedy. No application of *modus ponens*—indeed, no further inference of any kind—is required to get her there. In inferential conditionals, then, the inference is actually *performed*.[29]

[29] This is the key to stopping Lewis Carroll's infamous tortoise regress (1895). We stop it at the very first step: when the tortoise, who has already committed himself to the truth of propositions A and B, then commits himself to the conditional message that *if A and B are both true, Z is true*, he *ipso facto* commits himself to the truth of Z. No *further* inference is required to 'detach' the consequent, for the inference is already contained in the compound.

4. The Equation

According to perhaps the most popular account of inferential conditionals on offer, the 'assertibility' or 'acceptability' of *If*-A, C equals the conditional probability of C given A (cf. Adams, 1975; Anthony Appiah, 1985; Edgington, 1995; Bennett, 2003, ch. 4). Following Bennett, I will refer to this as *the Equation*.

The first thing to note is that, even on its own terms, the Equation cannot be right: the natural interpretation of (25) below is surely acceptable by anyone's lights, but the conditional probability of the consequent given the antecedent is undefined:

(25) *If 0 = 1, then there's something wrong with Peano's axioms*.

The failure of the Equation in cases where P(A) = 0 is readily acknowledged, of course, and the thesis is often modified accordingly, to accommodate only those cases where P(A) > 0. For my part, however, I fail to see how this can be a legitimate response: m_{25} is semantically *no different*, in any relevant respect, from other inferential conditionals. In each case, the antecedent is hypothesized, and the consequent inferred. That the Equation has to treat these unexceptional cases where P(A) = 0 as exceptions is clear evidence that it is wrong.

Bennett sees the inability of the Equation to account for these cases unexceptionally as, of all things, an advantage of the conditional probability approach. It follows from the Equation, he writes, "that someone for whom P(A) = 0 cannot find A → C in any degree acceptable, whatever C may be" (p. 55). He goes on: "There is abundant intuitive evidence that *nobody has any use for A → C when for him P(A) = 0*" (*ibid*.). The reasoning here seems puzzling or even confused. Suppose there is someone for whom P(A) = 0. What follows from the Equation about the acceptability of *If*-A, C for this person? Depending on whether or not we allow zero as a denominator, either nothing follows at all, or it follows that the conditional is *infinitely* acceptable (whatever that might mean). It certainly does not follow—as Bennett appears to presume—that such a person cannot find the conditional in any degree acceptable.

Bennett's subsequent claim, meanwhile, that no one has any use for such conditionals, seems both false and in any case irrelevant. That someone may have no use for a given message plainly proves nothing whatsoever about its semantics. And in any case I can think of several uses for m_{25}, even in the mouth of one who believes its antecedent to be impossible: for example, it is a perfectly decent way

of saying, indirectly, that 0 = 1 is contrary to Peano's axioms, which in turn might serve as an appeal to mathematical authority in response to someone maintaining that 0 *does* equal 1 after all. Moreover there are plenty of cases in which conditionals with impossible antecedents can be used in reasoning by *reductio ad absurdum*, in which the whole point is to prove that the antecedents have probability zero.

The Equation also suffers from difficulties in the cases to which it does apply (i.e. where P(A) > 0). Acceptability is a *normative* matter, and the Equation, furthermore, presupposes that it is a matter of *degree*. All we can observe empirically, meanwhile, is *whether or not* people accept certain messages in certain contexts. How exactly these binary data about acceptance are supposed to map onto theses like the Equation is far from clear. Presumably, however, if the scalar notion is to do any work at all, it must be that people (if they are fully rational, in full possession of the relevant facts, etc.) *do* accept a certain message when the normative acceptability of that message is *very high*.

But as a matter of observation, people do *not* accept compound conditionals whose acceptability is *any* less than 1 by the Equation's lights. Suppose, for example, that Robert owns a box containing many white balls—as many as we like—together with a single black ball. By adding more white balls, we may make the conditional probability of the natural interpretation of (26) below as high as we like (but still, of course, just shy of 1):

(26) *If this ball is from Robert's box, it is white*.

But no matter how high we make the conditional probability, people will be found to *reject* m_{26}. Ask them *why* and they will say it is because of the single black ball. They will accept that if this ball is from Robert's box then it is *very probably* white—indeed, *almost certainly* so—but yet still insist that it *might not be*, and withhold assent from m_{26} on precisely those grounds. (I have tried this experiment myself on several native speakers.)

I conclude that conditional probability has nothing to do with the semantics of inferential conditionals. And I take the above data to confirm that their standard is, at least in cases like those discussed here, nothing short of *deductive validity* (for some other cases, see chapter 7, §2). The single black ball, no matter how many white balls there are around it, renders the inference of m_{26} invalid, which, given the above account, explains why people demur.

Chapter 6: Conditional Judgements

1. Introduction

Consider the future conditional interpretations, m_1 and m_2, of (1) and (2) below:

(1) *If it doesn't rain, the picnic will be impossible.*

(2) *If it won't rain, the picnic will be impossible.* [30]

Native English speakers all have a vague sense that these messages differ, but the semanticist seeks a precise articulation of the difference.

As the considerations deployed in chapter 5 (§2) will readily confirm, m_2 is a compound message, compounded out of prior messages, with its antecedent (m_3) and consequent (m_4) conveyed, respectively, by (3) and (4) below.

(3) *It won't rain.*

(4) *The picnic will be impossible.*

Essentially the same treatment as was given to the compound conditionals discussed in the previous chapter ought to apply to m_2. Accordingly, I submit that the proponent of this message is hypothesizing m_3: that it will not rain. She is then inferring from this that the picnic will be impossible.[31] m_2 is another of the *inferential* conditionals discussed in §3 of chapter 5 (although in this case the inference is not deductive).

On the traditional analysis, m_1 also comprises an antecedent and a consequent—the *same* antecedent and consequent as found in m_2. Examination of the literature discovers no arguments for this claim. It would simply seem to be a consequence, readily embraced, of the axiom that all conditionals have antecedents and consequents—whereupon m_3 is chosen for m_1's antecedent simply because there is none better. Holding onto the axiom immediately raises a

[30] The example sounds odd out of context, I fear, but recall Bennett's rain-sand example, discussed in chapter 3, §3. Cf. especially n. 22.

[31] I say *essentially* the same treatment, but there is a slight difference. The antecedent of this message, we have seen, is not a future-tensed proposition, but a present-tensed judgement—concerning imagined developments out of present realities. Since judgements are not truth-apt, treating them as hypotheses is necessarily slightly different from treating them *as true* whether or not they really are. Rather, it is a matter of treating them *as accepted* whether or not they really are. For a further discussion of this matter, see §2 of the next chapter.

number of difficult questions, however. Why, if m_3 is an ingredient of m_1, does the string (3) appear nowhere in sentence (1)? And how do m_1 and m_2 differ? Since they have the same antecedents and consequents, they must presumably have *different if* operators. But the suggestion that 'if' means something different in (1) from what it means in (2) is surely implausible.

There is something *prima facie* intriguing about (1) as a choice of words to express m_1. Plainly the *if*-condition concerns a *future* dry spell, but the verb form in the 'if'-clause—'doesn't'—signals *presentness* (at least in ordinary, non-conditional contexts). Matters become more intriguing still when we discover that m_1 is an instance of a general pattern, exhibited by the examples in the following table.

verb form	*time about*	*example*
present	future	*If Oswald DOESN'T shoot Kennedy, someone else will*
past	future	*If Terry WENT to Waterloo this evening, Julie would go with him*
	present	*If Robert WAS here now, we would be able to see him*
past past	future	*If the auditors HAD COME tomorrow, they would have found everything in order*
	present	*If Robert HAD BEEN here now, we would have been able to see him*
	past	*If Oswald HADN'T SHOT Kennedy, someone else would have*

The system underlying this pattern is plain: the time of the conceptual condition's (supposed) satisfaction in the *if*-condition is always *later* than the time registered by the form of the verb. Because of this, and following Bennett, I call this the *forward time shift* phenomenon.

This phenomenon was first called to philosophers' attention by Gibbard (1981). There remains no consensus as to its explanation. Few philosophers discuss it, while Bennett mentions it only to concede that he has not got to the bottom of it (2003, p. 15). I believe that it has considerable significance, not least for the classificatory debate concerning conditionals: it may immediately be noted that the phenomenon occurs with 'future indicatives' and 'subjunctives', but not with the other 'indicatives'. I believe, to be precise, that the only way to explain it requires us to concede (*i*) that the relocation thesis is correct, and (*ii*) that the conditionals that exhibit the forward time shift phenomenon contain no antecedent messages. This last conclusion was already advertised in the previous chapter (p. 50); in the present chapter I undertake to establish it.

2. Superficial explanations of the phenomenon

Before venturing my preferred explanation, a rival explanation needs dispensing with. In their 1989, A. J. Dale and A. Tanesini conjecture that the explanation of the present tense form of the verb in conditional clauses about the future (e.g. "If Oswald *doesn't* shoot Kennedy, someone else will") may have something to do with a phenomenon to be found in simple sentences:

> What then is the 'survival value' of the irregularity in English which Dudman claims is not even conjectured by those who see the PRESENT-FUTURE structure [e.g. 'If it rains tomorrow…'] as a 'perverse idiosyncracy' of English? We can only note that it would also seem to be a perverse idiosyncracy of English that it commonly allows the present tense in simple non-compound sentences which clearly express propositions about the future: John is taking his exam tomorrow, John takes his exam tomorrow, I am leaving my job at the end of the term, etc. etc. Perhaps the existence of such sentences in isolation from conditionals may go some way to explain the existence of such sentences within them.
>
> (1989, p. 194)

The mere suggestion hardly shows that this is the case, but Edgington pursues this line of thought further:

> The future tense typically plays two roles which are usually coincident: it indicates that we are speaking about the future; and it indicates that we are making a prediction or inference. It is interesting to note when these roles come apart. When something can be taken as a fixed datum, the present tense is natural: 'Term begins on October 12th', 'The sun sets at 7.03 tomorrow', 'Christmas day is on Sunday this year'. …
>
> Now, when we make a *supposition* about the future, as I claim we do with *if*: 'If it rains tomorrow, . . .', 'Suppose England lose tomorrow, . . .', we are not predicting or inferring rain or defeat. Nor are we supposing that these things are predictable: there is nothing amiss in 'If it rains tomorrow, I'll be very surprised'. We are taking something, hypothetically, for the sake of argument, for granted, as a datum. To make clear that we are not, even hypothetically, in the business of inferring the antecedent, the present tense is in order.
>
> (2003, pp. 398f.; cf. 1995, p. 312)

This line of explanation, however, will not work, for it brings to bear on our target phenomenon a faulty appreciation of another, demonstrably different one.

Let us begin with the different phenomenon first. English affords its speakers two importantly different kinds of predication (among others): *direct* and *futurate* (cf. Palmer 1974, pp. 35, 43; Herman Wekker 1976, pp. 79f.). Which kind of predication is at work is nowhere signalled in the sentence; witness, for example, (5):

(5) *They are getting married.*

(5) is ambiguous between a *direct* interpretation (they are at the altar as we speak) and a *futurate* interpretation (they are engaged to be married). The latter, note, is no proposition about the future (*contra* Dale and Tanesini); it is a proposition about the *present*, exactly as its formal tense suggests. What gives the sense of futurity is that the claim in question concerns a present *prearrangement for the future*.

Should this semantic hypothesis be doubted, note the past tensed equivalent, borne by (6):

(6) *They were getting married.*

(6) is ambiguous in exactly the same way as (5). One interpretation concerns their past wedding (direct predication); but the one we are presently interested in moots a past prearrangement to marry (futurate predication)—as in, for instance, the natural interpretation of, "They were getting married in November, but there was a problem with the venue and now they've had to postpone it until next year".

And so for Dale's and Tanesini's examples, all of which tolerate *futurate* interpretations, *viz*., interpretations concerning (present) prearrangements for the future, but not direct interpretations:

(7) *John takes / is taking his exam tomorrow*.

(8) *I am leaving my job at the end of the term*.

Notice, again, how clear the element of prearrangement is when we shift to the past tensed equivalents:

(9) *John was taking his exam tomorrow (but we couldn't find an invigilator, so we've had to move it forward to Thursday).*

(10) *I was leaving my job at the end of the term (but then they offered me a pay rise, and so…)*.

For one of Edgington's examples—"The sun sets at 7.03 tomorrow"—it is *predetermination* rather than *prearrangement* that best describes the underlying semantics, but the basic trick is the same.[32, 33]

Futurate predication is demonstrably different from our target phenomenon. For notice that the former can occur in conditional clauses as well as on its own, and the semantic effect in such cases is quite different from that discerned in a present tensed 'future indicative' conditional:

(11) *If the lecture doesn't start till twelve, this timetable is wrong*.

(12) *If the lecture doesn't start till twelve, it'll finish late as well*.

In m_{11}, a present plan is hypothesized; in m_{12}, by contrast, the lecture's not starting till twelve is a future contingency, and its *scheduled* starting point is neither here nor there—indeed, to make the point clearer, I have chosen a main clause that suggests it was scheduled to start *earlier*. Dale and Tanesini conjectured that futurate predication might explain the curious feature of conditionals like m_{12}, and Edgington is explicit in insisting that this is the case. Attention to m_{11} and m_{12}, however, and the difference between their *if*-conditions, shows that the two phenomena are quite distinct.

It is also worth remembering that the present-future case that Edgington and Dale and Tanesini consider is in any case just one instance of a general pattern (recall the table in §1, p. 64). We should be seeking an explanation that accounts for every case at once, and the failure of the above explanations to do so counts significantly against them.

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[32] Though not necessary for the argument, it is nevertheless worth noting that futurate predication is by no means a perverse idiosyncrasy of English, as Dale and Tanesini suggest. As Bennett attests (2003, p. 15), the same occurs in (at least) Spanish, French, German, and Turkish. We may also add to this list Tanesini's native Italian (see Anna Proudfoot & Francesco Cardo, 1997, p. 48).

[33] Futurate messages are the messages that I had in mind when, in chapter 1 (§2, n. 12), I foreshadowed a possible counterexample to the general claim that the choice between the *V-s* and *V-ed* form of the verb always signals the time of some conceptual condition's satisfaction. As the present account confirms, these are after all no counterexamples to that claim (though if Dale's and Tanesini's account were right, they would be). For there are *two* conceptual conditions ambiguously encoded into the predicate 'BE getting married', one direct, one futurate; and in both cases the formal choice at the start of the predicate does indeed register the time of the conceptual condition's satisfaction.

3. The structure of conditional judgements

Let us try out a simple line of reasoning, using the words of (1) and (2) as our guide to the messages they encode. Recall (1) and (2):

(1) *If it doesn't rain, the picnic will be impossible.*

(2) *If it won't rain, the picnic will be impossible.*

The natural thought, it seems to me—given the structural conclusions of the previous chapter—is that m_1 and m_2 are alike *binary* in outermost structure, with the comma in each case cleanly marking the division of the two parts. They each have a judgement for an immediate factor: the judgement (m_4) that the picnic will be impossible. And alongside this judgement they have an *if*-condition, encoded into "If it doesn't rain" in the first case, and into "If it won't rain" in the second.

Encoded into "If it won't rain" in the wider context of (2), I have already said, is a *hypothesis*. The hypothesis itself is the prior message m_3 (that it won't rain—encoded, naturally enough, as "it won't rain"), while the *if* operator is what accords this message its hypothetical status. By contrast, encoded into "If it doesn't rain" is—let us say—a *complication*. Such complications as these are not *hypotheses*, for there is no prior message to be hypothesized. The supposing in this case does not amount to the hypothesizing of any *message*; rather, we have the supposition *of something's (not) happening*. "In the event of its not raining" seems to capture the idea perfectly.

How does such a complication affect the original judgement (in this case, m_4, that the picnic will be impossible)? Plainly enough, it restricts its application: not, now, a judgement that the picnic will be impossible *simpliciter*, but a judgement that the picnic will be impossible *in the event of its not raining*.

As for 'future indicatives' like m_1, so for 'subjunctives' like m_{13} and m_{14}, the conditional interpretations of (13) and (14) below:

(13) *If it didn't rain, the picnic would be impossible.*

(14) *If it hadn't rained, the picnic would have been impossible.*

These messages likewise break down into a *judgement*—that the picnic would be impossible, or that the picnic would have been impossible—and a *complication*. The complications in each case involve no prior messages (no antecedents), but are rather just restrictions on the application of the judgement: not, now, that the

picnic would be (or would have been) impossible *simpliciter*, but that it would be (or would have been) impossible *in the event of its not raining*.

English speakers will not be found venturing such projective judgements as that *the picnic would be impossible* or that *the picnic would have been impossible* without some qualification like the above *if*-condition. Considered on their own, such judgements feel somehow *incomplete*. This should not count against the present analysis, however, for this incompleteness is not after all an intrinsic feature of judgements of this kind. Other messages of the same form will be found quite complete on their own—recall the natural interpretations of the following:

(15) *Terry would make a fine husband for Julie*.

(16) *Terry would have made a fine husband for Julie*.

The incompleteness must be explained, then, not by any infirmity in the *form*, but by particularities of the case.

I explain it as follows. In order to make sense of a past or past past tensed projective judgement, the hearer must grasp the speaker's motive for beginning her imaginative exercise at some past or past past time. Saying that the picnic would be or would have been impossible *simpliciter* leaves this motive unclear, while saying that it would be or would have been impossible *in certain eventualities* usually clarifies it. Alongside some such qualification, the motive for retreating to the simple past is often just to discount present particularities, thereby conveying a sense of generality. Another common motive (but by no means an invariant one; recall chapter 2, §2) is that the speaker believes that the eventualities in question do not or did not actually obtain. And notice, before we move on, that an *if*-condition is by no means the only way of specifying the eventualities in question:

(17) *The picnic would be impossible <u>in a sandstorm</u>*.

(18) *<u>Without these plates</u>, the picnic would have been impossible*.

(19) *<u>But for this dry spell</u>, the picnic would be impossible*.

This simple and direct line of reasoning seems to get us to exactly the right structural analysis. The picture we have ended up with—on which the conditionals in question break down into a judgement and a complication

restricting its scope (but not via the hypothesizing of any prior message)—accounts for the perceived difference between m_1 and m_2 admirably (and does so without having to postulate any ambiguity in 'if'). It also accounts for the words with which English encodes all 'future indicative' and 'subjunctive' conditionals. The forward time shift phenomenon, meanwhile, is explained as a particular instance of the characteristic tense-time relationship in projective judgements in general, whether conditional or not (recall chapter 1, §3). Nothing remains to be accounted for.[34] The cost is that we are obliged to abandon the axiom that every conditional has an antecedent and a consequent; but then there was no motivation for this axiom to begin with.

Or rather, there was *some* motivation for this axiom, but it is to be found in the traditional classification of conditionals. The 'indicative' conditionals examined in the previous chapter plainly *do* have antecedent messages. And so if, as the tradition maintains, 'future indicatives' like m_1 belong in the same semantic bracket, then they too had better have antecedent messages. And if 'future indicatives', why not 'subjunctives' as well? The fact that the sentences that encode these antecedent messages in non-conditional contexts do not appear in the conditional sentences no longer seems to be any obstacle. Relieved of the burden of the traditional classification and all that it entails, however, we are free to pay closer attention to the facts about English sentences, and to use these as our guide to the underlying structural realities.

4. Further evidence

I end this chapter with some further evidence that conditional judgements have no antecedent messages. This evidence alone, it seems to me, is quite decisive.

Messages, whether statements or judgements, can all be *believed*. And we can of course *say* that someone believes them—even while hypothesizing them in a compound conditional; observe:

[34] My analysis of these messages is very similar in spirit to Dudman's, but differs in one key respect. For me, the outermost structure of these messages is *binary*, with the complication being appended to a whole judgement. For Dudman, however, their outermost structure is *simple*, with the complication rather a *component part* of the overall judgement (see e.g. his 1986, §3, 1991, §5). In effect, where I have the complication qualifying the judgement as a whole, Dudman has it qualifying the *verdict*: the picnic *will-if-it-doesn't-rain* be impossible. This latter diagnosis seems unnatural, however. What is said of the picnic is simply that it *will* be impossible, not that it *will-if-it-doesn't-rain* be impossible. But it is not said that it will be thus in *every* eventuality; only that it will be thus in cases of no rain.

(15) *If, as Terry believes, Oswald didn't shoot Kennedy, someone else did.*

But now examine (16) below:

(16) *If, as Terry believes, Oswald doesn't shoot Kennedy, someone else will.*

In trying to make sense of this sentence, the English speaker is obliged to parse "Oswald doesn't shoot Kennedy" *as a sentence*, whereupon a (somewhat peculiar) habitual message springs to mind—"If, as Terry believes, Oswald doesn't shoot Kennedy these days, …". It is impossible for that string to encode in (16) what it is naturally taken to encode in our familiar (17):

(17) *If Oswald doesn't shoot Kennedy, someone else will.*

The reason is that m_{17}, the natural interpretation of (17), contains *no antecedent message* fit to be believed. And likewise all 'subjunctive' conditionals; as will be confirmed by examination of (18) and (19):

(18) ***** *If, as Terry believes, Robert was here now, we would be able to see him.*

(19) ***** *If, as Terry believes, the auditors had come tomorrow, they would have found everything in perfect order.*

If there are antecedent messages in these conditionals, why can't we say that we believe them in such contexts? And why doesn't English encode them in the usual way? How are we to explain the pattern governing the way in which it *does* encode them (with the time registered by form always earlier than the time of the conceptual condition's satisfaction)? The belief in antecedent messages here, for which no positive arguments have been given, leaves too much to be explained. I prefer the economical account of §3 above that leaves no such explanatory gaps.

Chapter 7: Interpretations of 'If'-Sentences

1. Outline

The classification of conditionals, I believe, has very little to do with 'if'. The distinctions to be drawn among the things we say with this little word are quite general distinctions marked by English. It just so happens that—like so many English conjunctions—'if' shows up on several sides of these general lines.

The first distinction is between *simple* and *compound*. Compound messages are compounded out of two (or more) prior messages. Simple messages are not. The next set of distinctions are those to be made among simple messages: into *statements*, *practical judgements*, and *projective judgements*. Compound conditionals can have antecedents and consequents of all three types. Projective judgements, meanwhile, and also certain statements (see §3 below), can all be complicated with an *if*-condition. Thus, in outline, the three broad categories of the things we say with 'if':[35] compound conditionals, conditional statements, and conditional judgements. Now let us explore all this in more detail.

2. Compound conditionals

There are many subdivisions to be made among compound conditionals. I hope the following survey is reasonably complete.

Compound conditionals, to repeat, can have antecedents and consequents of all three types. I have already said something concerning conditionals with *propositions* for both antecedent and consequent, and in particular the *inferential* conditionals, in which the consequent is deduced from the antecedent (chapter 5, §3). Another very common combination is that of an antecedent proposition with a consequent practical judgement, as in the natural interpretations of each of the following:

(1) *If the door was locked, he must have gone in through the window*.

(2) *If Robert is here, we ought to be able to see him*.

(3) *If he came this way, he will have left footprints*.

[35] There are other things we say with 'if' that I am here ignoring—notably, the things we say beginning, "He / she wondered *if*…", and perhaps one or two others. But these pose questions for another day.

These are likewise inferential conditionals, but in their case the inference is not deductive. It is only when antecedent and consequent are alike propositions that the standard of the inference is deductive validity.

I have suggested, in line with Dudman, that when 'if' is prefixed to a (component) sentence, it announces that the speaker is treating the then interpretation of that sentence as a hypothesis. When that interpretation is a proposition, this amounts to treating it *as true* whether or not it really is. When it is a judgement—a subjective thing, I have argued—it necessarily amounts to something slightly different, as I now explore a little further.

We frequently take ourselves to be *in control* of certain aspects of the future. They are thought of as somehow *up to us*. Now, when the substance of a projective judgment about the future is up to the speaker, a verdict of *will* usually has a strong flavour of intentionality; e.g. the natural interpretation of (4):

(4) *I will follow you*.

(Of course, there are situations in which the flavour of intentionality is not read into this message: when the speaker, say, is in a car being towed by the hearer, and has no choice but to follow. These are all and only those occasions on which the matter in question is *not* up to the speaker, however.) Similarly, the natural interpretation of (5) sometimes has the flavour of command:

(5) *You will follow me*.

When m_5 is hypothesized, however, a striking change is effected; observe:

(6) *If you will follow me, I will show you to your room*.

As the antecedent of m_6, m_5 loses all flavour of command. Instead, the verdict—inevitably the *speaker's* verdict in unhypothesized contexts—becomes the *hearer's* (hypothetical) verdict. The overall effect is of the speaker hypothesizing some facet of the hearer's intentions: in short, the judgement gets a new owner.

When a judgement concerns matters that are not taken to be within anyone's control, hypothesizing it would seem to have the effect of making it no one's judgement in particular. The proponent of m_7, the future interpretation of (7) below, is venturing her *own* prediction:

(7) *It won't rain*.

But whose verdict is it when m_7 is hypothesized, as in the natural interpretation of (8) below?

(8) *If it won't rain, the picnic will be impossible*.

Plainly there is no one around who might own the hypothesized judgement here any more than anyone else. The overall effect, in this particular case, is of supposing that rain is not presently on the way—a matter of objective fact, fit to be hypothesized in a straightforward way. Thus the distinctive sense of ownership that goes along with such judgements in unhypothesized contexts vanishes in the antecedent of a compound conditional.

It would seem to be a common reaction that conditionals with projective judgements for antecedents are somehow odd, atypical (see e.g. Dale & Tanesini, 1989, p. 192; Edgington, 2003, p. 399). I concur with this sentiment, and accordingly seek its explanation. The subjectivity that I diagnose in projective messages, and the fact that the distinctive sense of ownership that ordinarily goes along with them cannot survive in hypothesized contexts, seems to capture the felt oddity exactly.

Two kinds of compound conditionals deserve special mention, for they are both, but for different reasons, counterexamples to the general claim that 'if' announces, in such compounds, that the antecedent message is being treated as a hypothesis.

The first is instanced by the natural interpretation of the following.

(9) *If you're thirsty, there's some juice in the fridge*.

Such messages as these are extremely common. And yet I seem to hear in them a *misuse* of 'if': the pedant who replies that there's juice in the fridge *whether he's thirsty or not* may be many things, but he is not wrong. The fact that these are counterexamples to the general claim, therefore, seems to me no evidence against it: they really are exceptional cases, and deserve to be treated as such.

Of course, we can readily reconstruct the speaker's intention in encumbering some piece of information with a *faux*-hypothesis of this kind: the hypothesis is there to explain the principal affirmation. Strictly speaking, however, it has no business serving as this explanation. The explanation is not *that you are thirsty*, but that *the thought that you might be* is somewhere in the air (so to speak).

There has been much interest lately in (the natural interpretation of) the 'Harlem'-sentence and its kin:

(10) *If you want to go to Harlem, you have to take the A train*.

(See e.g. Kjell Sæbø, 2001.) It seems to me that the use of 'if' here is exactly as in (9) on its natural interpretation. For of course in *that* case you have to take the A train (to get to Harlem) *whether you want to go there or not*. That you want to go there is not a hypothesis from which the consequent follows, or upon which it in any way depends: rather, it serves as the explanation (*faux*-explanation, as above) of the principal affirmation.

The second class of exceptions to the general claim is instanced by the natural interpretation of (11):

(11) *If he had been saddened by her illness, he was delighted at her speedy recovery*.

These distinguish themselves from all other compound conditionals in that, in their case only, the 'if'-clause cannot be placed after the main clause: perhaps (12) below has an interpretation, but it certainly isn't the natural interpretation of (11) above:

? (12) *He was delighted at her speedy recovery, if he had been saddened by her illness*.

In these compounds, the idea governing the relationship between the two prior messages is (not that of inference but) that of *apposition*. The antecedent is there to draw up some *contrast* with the consequent. Notice that the consequent, in such cases, is always affirmed outright.

So far I have been restricting my focus to antecedents and consequents of the simplest kinds—i.e. messages encoded into simple sentences (i.e. sentences with no subordinate clauses). However, compound conditionals can also have conditional judgements as antecedents; e.g. the natural interpretation of (13):

(13) *If she won't come if I'm there, then I won't come*.

They can also have conditional judgements as *consequents*; e.g. the natural interpretation of (14):

(14) *If Sly Pete holds a losing hand, then he will lose if he calls*.

They can also have *compound* conditionals as consequents; e.g. the natural interpretation of (15):

(15) *If Julie was there, then if Terry was there, at least two people were present*.

In these last cases, the antecedent of the embedded conditional is acting as a *second* hypothesis upon which the principal message (the consequent of the consequent) depends. It is in effect just as if the speaker had said:

(16) *If Julie was there and Terry was there, then at least two people were present*.

And, very occasionally, a compound conditional is itself the *antecedent* of a compound conditional. For example, the natural interpretation of (17):

(17) *If someone else shot Kennedy if Oswald didn't, then Kennedy was shot by someone*.

In the *if*-condition here, an argument from antecedent to consequent is hypothesized, so that its implicit premise may be inferred. We needn't, I take it, suppose that the argument in question is truth-apt to account for these cases (any more than we need to do so for the cases in which the antecedent is a projective judgement). And after all, I think I hear something cumbersome in these conditionals, an awkwardness which I take to be explained by the embedded reasoning. Notice how comfortable the natural interpretation of the following sentence is by comparison:

(18) *If the proposition that someone else shot Kennedy follows from the proposition that Oswald didn't, then Kennedy was shot by someone*.

In the case of m_{17}, the inference in question is hypothetically *performed*, while in the case of m_{18} the speaker simply hypothesizes (propositionally) *that the inference in question is valid*—an eminently less cumbersome hypothesis from which to infer the same consequent.

Two more special cases, finally, seem worthy of mention. The first emerges when there is a certain indefiniteness in the antecedent, in which cases a certain generality can be added in the hypothetical context. For example, consider the natural interpretation of (19) below:

(19) *He said something of interest*.

The indefiniteness I have in mind here is that for which 'something' is responsible. When m_{19} is hypothesized, English affords us the option of switching to 'anything', encoding thereby a sense of generality that is not accessible to the proposition when it is affirmed outright; thus:

(20) *If he said anything of interest, I didn't hear it*.

A second kind of generality is found in such interpretations as of (21):

(21) *If doing a thing is bad, getting your little brother to do it is bad*.

This message is a generalization from such particular messages as the natural interpretation of (22):

(22) *If tormenting the cat is bad, getting your little brother to do it is bad*.

Unlike the element of generality in m_{20}, which was restricted in scope to the antecedent, the generality in m_{21} encompasses the *whole* compound message—the form of the whole may be represented thus:

$\forall x$ [if doing x is bad, getting your little brother to do x is bad]

Such messages as these, then, have no antecedents or consequents. The messages of which they are generalizations do, but these prior antecedents and consequents are swallowed up, so to speak, by the generality.

It is not clear exactly how wide the tradition intends its 'indicative' class to extend across the things we say with 'if'. Assuming the 'future indicatives' to have been relocated, the remainder comprises certainly nothing *less* than compound conditionals with statements for both antecedent and consequent, and certainly nothing *more* than compound conditionals as a whole. But whether *all* the compound conditionals in between are supposed to be a part of this class, I do not know. Generalization interpretations such as m_{21} seem borderline, as do the 'apposition' interpretations like m_{11}. And I have already noted the common

sentiment that conditionals with projective judgements for antecedents are somehow atypical. Conditionals with conditional antecedents or consequents (either simple or compound) also often seem to be thought of as special cases.

However that may be, I hope the present catalogue is reasonably complete as regards compound conditionals. And I hope that the possibility of giving such a thorough catalogue, and of explaining the felt oddity of some of the cases, provides further confirmation of the general distinctions—into simple and compound first, and into statements, practical judgements, and projective judgements second—upon which this catalogue is premised.

3. Conditional statements

Among the class of English statements as a whole we find *habitual* messages, such as those encoded by the following sentences.

(22) *Adam usually wears shorts*.

(23) *I will often be found in the library*.

(24) *Terry meets Julie at Waterloo station every Friday night*.

These can ordinarily be elaborated with an *if*-condition:

(25) *If it is sunny, Adam usually wears shorts*.

(26) *If I have work to do, I will often be found in the library*.

The role of the 'if'-clauses in (25) and (26) is much like the role of 'every Friday night' in (24), or 'in summer' in (27) below:

(27) *In summer, Adam usually wears shorts*.

It encodes a restriction on the domain of the generalization. It is quite implausible to recognize antecedents and consequents here, but I trust no one has thought otherwise.

No one writing on conditionals seems to count these messages among that much-debated class. As noted in my introduction, most writers simply ignore them. It was Dudman, I think, who first drew them to the attention of philosophers in the area, with the result that Bennett now explicitly sets them aside (2003, p. 5). If one is interested in how 'if' works in English, however, I

can think of no reason why they should not be included in one's account. There is no doubt much of interest to be said about habitual messages in general, including those complicated with an *if*-condition in particular. Suffice it to say here that they are all statements—propositions, no less, claims of past or present fact—and that they require a propositional treatment accordingly.

There is another class of propositional interpretations of 'if'-sentences, which Dudman, too, seems not to have noticed. Like the above, they are statements elaborated with an *if*-condition. The messages in question are not habituals, however, but what I shall informally label *future directed* messages. These messages take many forms, and I shall only gesture at them here by example; to which end, examine the natural interpretations of the following.

(28) *They are getting married next year*.

(29) *We are going to have a party*.

(30) *I have to speak to them*.

(31) *I want to speak to them*.

(32) *I am thinking of speaking to them*.

The messages that I have in mind here are all claims of present or past fact, but facts that, in one way or another, reach towards a later time. (They include, but are by no means limited to, futurate messages, such as that borne by (28); recall chapter 6, §2.) These messages can all be elaborated by an *if*-condition; whereupon English outputs, for example:

(33) *They are getting married next year, if her father doesn't object*.

(34) *If we can get enough people to come, we are going to have a party*.

(35) *If they come to the meeting this evening, I want to speak to them*.

Again, there is doubtless much of interest to be said about future directed messages in general, and those complicated with *if*-conditions in particular. Suffice it to say here that they are propositions—claims of past or present fact—and that they require a propositional treatment accordingly. And like the 'future indicatives' and 'subjunctives' discussed in the previous chapter, they have no antecedents. Should these messages count as conditionals, then—and I see no

reason why they should not—they would provide further counterexamples to the received ternary analysis.

4. Conditional judgements

Projective judgements may themselves be divided according to their *verdict*: projective *will* judgements, projective *can* judgements, projective *must* judgements, and so on. All these judgements, meanwhile, can be complicated with an *if*-condition, yielding such conditional judgements as those encoded in the following sentences:

(36) *If Otto behaved himself this evening, he would be ignored*.

(37) *If Oswald doesn't shoot Kennedy, someone else will*.

(38) *If Oswald hadn't shot Kennedy, someone else would have*.

(39) *If the auditors had come tomorrow, they would have found everything in perfect order*.

(40) *If Claire was here, we could ask her*.

(41) *If you had asked them, they might have said yes*.

(42) *If he does it again, you must tell me immediately*.

I have already said everything that I am going to say about these kinds of messages—recall chapters 2, 3, 4, and 6. I have focused, as is the present philosophical custom, exclusively on those where the verdict is *will*. A full treatment would require much more to be said about the other modals, and about the meanings of each, but these are matters for further down the line.

Conclusion

I have insisted throughout the preceding discussion on being scrupulous about the distinction between sentences and the propositions or messages that they are uttered in order to convey. I have insisted, furthermore, that it is with *messages* that semanticists are primarily concerned, in the sense that it is to messages that semantic properties (truth, entailment, etc.) properly apply. However, this is not to say that we can afford to ignore the sentences. Far from it: the sentences provide us with invaluable evidence as to both the structure and content of the messages they encode.

I have been concerned above with the question of the classification of the things we say with 'if'. Burgess writes, near the beginning of his review of Bennett's 2003 book on conditionals: "Chapter 1 [of the book] divides conditionals into two classes. Like others, Bennett prefers a division based on tangible differences in sentences rather than intuited differences in propositions expressed. He draws the line between conditionals expressible in English by sentences that have 'would' in the consequent, which following tradition he labels 'subjunctive', and others, labeled 'indicative'." (2004, p. 565)

I agree wholeheartedly with what Burgess here describes as Bennett's preference: as a basic methodological principle, we must attend to tangible differences in sentences rather than just intuited differences in propositions expressed (for me, *messages encoded*), for such intuitions are apt to lead even the most careful of thinkers astray. I intend all of the classificatory conclusions reached above to be backed up by observations about such tangible differences. All the evidence, however, points overwhelmingly in the relocators' favour. Bennett's decision to treat conditional messages encoded into 'would'-sentences differently from those encoded into 'will'-sentences is like a decision to treat messages encoded into 'was'-sentences differently from those encoded into 'is'-sentences. There is a tangible difference, certainly, but upon investigation it turns out to reflect nothing more than a difference in tense.

I began my investigation of the things we say with 'if' in a quite different quarter, exploring tense phenomena in simple sentences (chapter 1). I argued that, in such simpler cases, English marked no distinctions of mood, and exhibited nothing appropriately described as a 'future tense'. Rather, 'will' turned out to encode for the *present* exactly what 'would' encodes for the *past*. The contrary beliefs, which I suggested lie behind the traditional classification of conditionals,

were shown to leave many linguistic facts unexplained, in particular concerning reported speech. In chapter 2 I then extended this account of simple messages in the most natural way to certain conditionals, namely those traditionally termed 'future indicatives' and 'subjunctives'. The upshot was that these messages, like their simpler unconditional counterparts, differed only in tense, just as the relocators maintain. The emerging semantic theory was then shown to account for the linguistic data admirably.

In chapters 3 and 4 I switched to a defensive tack, critically examining Bennett's arguments against the relocation thesis that centre on the point he labels 'Stand or Fall' (that 'future indicative' or Does-will conditionals 'stand or fall' with their corresponding 'past subjunctive' or Had-would conditionals), and then both Jackson's and Bennett's arguments for the traditional classification premised on the phenomenon of Gibbardian stand-offs. In each case, the arguments were found wanting, and in the course of the discussion further evidence for the relocators' theory presented itself (in particular its ability to account for cases in which there are *two* salient past points behind which one might wish to retreat in venturing a conditional projective judgement; as in Bennett's sheep example, discussed in chapter 3, §2).

In chapter 5 I was concerned to say more about the semantics of compound conditionals (and again in chapter 7, §2). The main conclusions sought in chapters 5 and 6, however, were structural: 'future indicatives' and 'subjunctives', I argued (chapter 6), contain no antecedent messages—just as the sentences that encode them contain no antecedent sentences—while other 'indicative' conditionals do. This constituted my main argument against the traditionalists' claim (to which endorsers of the unified view are also committed) that 'future indicatives' and 'past indicatives' differ only in tense.

The relocators' classification of conditionals, it seems to me, is backed up by compelling evidence in every quarter. I hope to have laid out the most significant parts of this evidence clearly in the above. The claims to which I am opposed, by contrast, seem to enjoy axiomatic status in much of the literature, by which I mean both that evidence *in favour* of them is not forthcoming, and that the evidence *against* them is simply ignored—I am thinking here particularly of the belief in something like a future tense in English, and something like indicative and subjunctive moods, and of the belief in antecedent and consequent messages in all conditionals.

I am bold enough to believe that the taxonomy of the things we say with 'if' given in chapter 7, if not already complete, at least covers most of the ground, and provides the framework in which to place any further *if*-messages that I may have missed. It goes beyond the relocation thesis, but it is quite impossible without that thesis behind it. And that by itself would be enough to recommend the thesis, even if the arguments of chapters 1-6 had not already made a powerful case. The relocation thesis, therefore, is not only supported by direct arguments, but it is also vindicated by its results.

References

E. W. Adams (1970), "Subjunctive and Indicative Conditionals", *Foundations of Language*, vol. 6, pp. 89-94

—— (1975), *The Logic of Conditionals*, Dordrecht: Reidel

Alan Ross Anderson (1951), "A Note on Subjunctive and Counterfactual Conditionals", *Analysis*, vol. 12, no. 2, pp. 35-38

Anthony Appiah (1985), *Assertion and Conditionals*, Cambridge: Cambridge University Press

Jonathan Bennett (1988), "Farewell to the Phlogiston Theory of Conditionals", *Mind*, New Series, vol. 97, no. 388, pp. 509-527

—— (1995), "Classifying Conditionals: The Traditional Way is Right", *Mind*, New Series, vol. 104, no. 414, pp. 331-354

—— (2003), *A Philosophical Guide to Conditionals*, Oxford: Oxford University Press

John P. Burgess (2004), "Review: A Philosophical Guide to Conditionals, by Jonathan Bennett", *The Bulletin of Symbolic Logic*, vol. 10, no. 4, pp. 565-570

Lewis Carroll (1895), "What the Tortoise Said to Achilles", *Mind*, vol. 4, no. 14, pp. 278-280

A. J. Dale & A. Tanesini (1989), "Why Are Italians More Reasonable than Australians?", *Analysis*, vol. 49, no. 4, pp. 189-194

Wayne A. Davis (1979), "Indicative and Subjunctive Conditionals", *The Philosophical Review*, vol. 88, no. 4, pp. 544-564

V. H. Dudman (1984), "Conditional Interpretations of 'If'-Sentences", *The Australian Journal of Linguistics*, vol. 4, no. 2, pp. 143-204

—— (1985), "Towards a Theory of Predication for English", *Australian Journal of Philosophy*, vol. 5, no. 2, pp. 143-196

—— (1986), "Antecedents and Consequents", *Theoria*, vol. 52, pp. 168-199

—— (1991), "Interpretations of 'If'-Sentences", in Jackson (ed.)

—— (1992), “A Popular Presumption Refuted”, *The Journal of Philosophy*, vol. 89, no. 8, pp. 431-432

—— (1994a), “On Conditionals”, *The Journal of Philosophy*, vol. 91, no. 3, pp. 113-128

—— (1994b), “Against the Indicative”, *The Australian Journal of Philosophy*, vol. 72, pp. 17-26

Dorothy Edgington (1995), “On Conditionals”, *Mind*, New Series, vol. 104, no. 414, pp. 235-329

—— (2003), “What if? Questions About Conditionals”, *Mind & Language*, vol. 18, no. 4, pp. 380-401

Brian Ellis (1978), “A Unified Theory of Conditionals”, *Journal of Philosophical Logic*, vol. 7, pp. 107-124

—— (1984), “Two Theories of Indicative Conditionals”, *Australasian Journal of Philosophy*, vol. 62, pp. 50-66

Caroline Féry & Wolfgang Sternerfeld (2001) (eds), *Audiatur Vox Sapientiae: A Festchrift for Arnim von Stechow*, Akadmie Verlag

Otto Jesperson (1931), *A Modern English Grammar on Historical Principles, Part IV*, London: Allen & Unwin

Allan Gibbard (1981), “Two Recent Theories of Conditionals”, in Harper et al. (eds)

R. E. Grandy & R. Warner (eds) (1986), *Philosophical Grounds of Rationality*, Oxford: Oxford University Press

W. L. Harper, R. Stalnaker, & G. Pearce (eds) (1981), *Ifs*, Dordrecht: Reidel

Rodney Huddleston & Geoffrey K. Pullum (2002), *The Cambridge Grammar of the English Language*, Cambridge: Cambridge University Press

Frank Jackson (1987), *Conditionals*, Oxford: Blackwell

—— (1990), “Classifying Conditionals”, *Analysis*, vol. 50, no. 2, pp. 134-147

—— (1991a), “Classifying Conditionals II”, *Analysis*, vol. 51, no. 3, pp. 137-143

—— (ed.) (1991b), *Conditionals*, Oxford: Oxford University Press

David Lewis (1973), *Counterfactuals*, Oxford: Blackwell

—— (1981), "Counterfactuals and Comparative Possibility", in Harper et al. (eds)

E. J. Lowe (1990), "Conditionals, Context, and Transitivity", *Analysis*, vol. 50, no. 2, pp. 80-87

—— (1991), "Jackson on Classifying Conditionals", *Analysis*, vol. 51, no. 3, pp. 126-130

J. McT. E. McTaggart (1908), "The Unreality of Time", *Mind*, vol. 17, pp. 457-474

D. H. Mellor (1993), "How to Believe a Conditional", *The Journal of Philosophy*, vol. 90, no. 5, pp. 233-248

F. R. Palmer (1974), *The English Verb*, London: Longman

Michael Pendlebury (1989), "The Projection Strategy and the Truth Conditions of Conditional Statements", *Mind*, vol. 98, no. 390, pp. 179-205

Anna Proudfoot & Francesco Cardo (1997), *Modern Italian Grammar*, London: Routledge

Kjell Johan Sæbø (2001), "Necessary Conditions in a Natural Language", in Féry & Sternerfeld (eds)

Timothy Smiley (1984), "Hunter on Conditionals", *Proceedings of the Aristotelian Society*, vol. 84, pp. 113-122

Robert Stalnaker (1968), "A Theory of Conditionals", reprinted in Jackson (ed.)

Jason Stanley (2007), *Language in Context*, Oxford: Clarendon Press

P. F. Strawson (1959), Individuals, London: Methuen (reprinted 1965)

—— (1986), "'If' and '⊃'", in Grandy & Warner (eds)

Michael Tooley (1997), *Tense, Time, and Causation*, Oxford: Clarendon Press

Herman Wekker (1976), *The Expression of Future Time in Contemporary British English*, Amsterdam: North-Holland Publishing Company

Michael Woods (1997), *Conditionals*, Oxford: Clarendon Press