

## TENSE AND TIME IN ENGLISH VERB CLUSTERS OF THE PRIMARY PATTERN

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1. From the outset, theories of tense for English confront the poser that temporal reference is not an invariant of her verb clusters. Thus *returned*, predicated upon the past in

(1) *She returned the tickets yesterday*

is found applied to the future in

(2) *If she returned the tickets tomorrow, they would refund her money*

How, then, can regular temporal significance be imputed to the syntactical form of the English verb cluster? It is the object of this essay to suggest how — as far, at any rate, as concerns primary-pattern verb clusters. A treatment of tense covering secondary-pattern verb clusters as well would require a vastly longer essay.

English verb clusters divide into those of the PRIMARY PATTERN and those of the SECONDARY PATTERN, the former being all and only those not incorporating a secondary auxiliary (Palmer 1974:30ff, 94ff). The secondary auxiliaries are *will, would, shall, should, can, could, may, might, must, ought* and two or three others. The point of the segregation is that secondary-pattern verb clusters are systematically one word longer than primary-pattern ones — a syntactical fact which can hardly lack semantic significance.

2. The traditional notion of tense is familiar without being clear, and in fact runs together the very two things whose relationship we want to investigate. For when one describes a verb cluster as (say) present tensed, it is unclear whether one is saying something about its syntactical form or something about its temporal meaning (cf. Jespersen 1931:1ff). Better to speak in less slippery terms; and this section will accordingly settle on some syntactical ones.

Viewed as a formal category, the old present tense comprised (for 3rd person singular, which will serve as our paradigm throughout) the eight forms *V-s, is V-ing, is V-en, is being V-en, has V-en, has been V-ing, has been V-en and has been being V-en* (e.g. Curme 1935:327ff). Spurning the delusive terminology, let us filch the syntactical idea and refer to the set of verb clusters of those eight forms as FORMAT R. Format R is thus a set of word-type strings. Half of its members, incidentally, are

PHASE-MODIFIED, in the sense that they contain a part of auxiliary HAVE followed by the *-en* part of some verb. Next, let us define, upon format R as domain, a function  $\varphi$  which maps verb clusters to verb clusters, as follows:- If  $r \in R$ , then  $\varphi(r)$  is the result of changing *V-s* to *V-ed*, *is* to *was* or *has* to *had* in  $r$ . The image set of verb clusters thus generated let us call FORMAT S, and the subset of S whose elements are phase-modified let us call FORMAT T. Now we can extend the definition of  $\varphi$  so that  $\varphi$  can take members of S as argument:- If  $s \in S$ , then (i) if  $s \in T$ , then  $\varphi(s)$  does not exist, and (ii) otherwise,  $\varphi(s)$  is obtained by phase-modifying  $s$ . And with that we have all the syntactical machinery we shall be needing. It is epitomised in Figure 1 where, for perspicuity, I have omitted the passive forms, and where the arrows enact the exploits of  $\varphi$ .

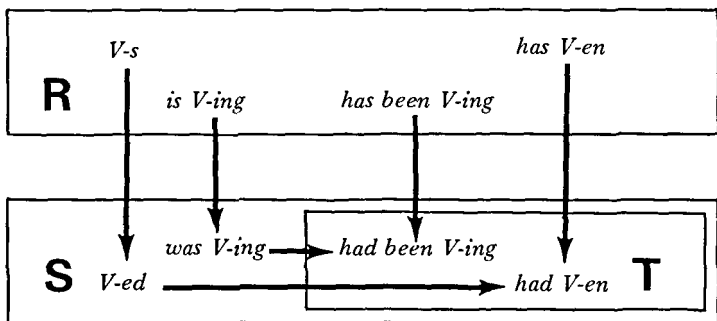


Figure 1. *The primary-pattern verb cluster*

And now, as a matter of empirical fact, the union of formats R and S is the set of primary-pattern verb clusters of English. We can think of the elements of R as the ABORIGINAL primary-pattern verb clusters, the elements of S all being generated from elements of R by means of  $\varphi$  — with the point to be made that half the members of S can be generated in two different ways (cf. sections 5 and 6).

3. The difficulty we began with was that verb clusters enjoy divergent temporal associations. Such matters are conveniently formulated in terms of the USES to which verb clusters are susceptible: what we observed in (1) and (2), we can say, is that the format-S verb cluster *returned* admits of uses relating to future returnings as well as uses relating to past ones. Cataloguing verb-cluster uses has long been a staple of the grammatical endeavour, and all sorts of discriminations can be drawn: the uses to which English verb clusters submit are absorbingly heterogeneous.

One interesting variety is discovered when locutions like

- (3) *The conference begins next Monday*
- (4) *The conference began next Monday*
- (5) *The conference had begun next Monday*

are employed to volunteer the terms of some plan, intention, determination, arrangement or schedule relating to the future:

- (6) *According to our original plan, the conference began next Monday, but now it begins tomorrow*  
 (7) *Initially the conference had begun next Monday, but many delegates complained and . . .*

What is registered by the format of the verb cluster in such a case is patently the time of the schedule's validity — a point to which we shall revert (in section 6). Meanwhile, these 'pre-arrangement' uses are instanced here simply to illustrate the diversity of the distinctions that can be drawn among verb-cluster uses.

And now I should like to plead a dichotomy of my own.

4. Some of the uses that come a verb cluster's way are confined to its occurrences in non-principal clauses. Each primary-pattern verb cluster has uses, that is to say, which never accrue to it when it occurs as the finite verb of a one-clause sentence or indeed of any principal clause — uses accessible to it only when it occurs in some non-principal clause. A case in point is the future-related use of *returned* we described in (2). One can indeed say

- (8) *She returned the tickets tomorrow*

to allege an erstwhile pre-arrangement, after the manner of (4); but under the only unforced interpretation of (2), *returned* moots not an erstwhile pre-arrangement but a future contingency, and my point is that THAT use is never accessible to *returned* in the context of any one-clause sentence. When *returned* is taken THAT way, (8) cannot be understood as an English sentence.

The past-related use of *returned* we found in (1) is quite different: it crops up in one-clause sentences and non-principal clauses alike. Indeed it is precisely because we recognise the same use of *returned* in (1) as in

- (9) *If she returned the tickets yesterday, her refund was posted this morning*

that we can conclude, from (1) and (9) taken together, that her refund was posted this morning. Occurring in the context of (9), (1) is construed exactly as it would be were it standing alone as a one-clause sentence.

Let us speak of those uses as PRIME which, like the past-event use of *returned* we discovered in (1) and in (9), are accessible to the finite verb clusters of one-clause sentences. Then the central contention of this paper is simply that, in English, not all verb-cluster uses are prime uses.

Indeed, the primary-pattern verb clusters of English are much given to non-prime use, as reflection upon the following examples will disclose:

- (10) *If she returns the tickets tomorrow, they will refund her money*

- (11) *If she had returned the tickets tomorrow, they would have refunded her money* (said after she has lost or destroyed the tickets, likely)
- (12) *If your father was alive today, he would be turning in his grave*
- (13) *If your father had been alive today, he would have been turning in his grave*
- (14) *If Hitler had invaded England in 1940, Germany would have won the war*

Moreover, the non-prime uses we have just discovered occur systematically: Figure 2 reveals an unignorable and intriguing pattern.

FUTURE	R — cf. (8)
	S — cf. (2)
	T — cf. (9)
PRESENT	S — cf. (10)
	T — cf. (11)
PAST	T — cf. (12)

Figure 2. *Undeclarative uses*

In due course I shall try to elicit the secret of that pattern; but my present purpose is one merely of demarcation: whatever other non-prime uses the verb clusters of English may transpire to tolerate (cf. section 10), there is at least the genre delineated in Figure 2, and these uses I hereby dub UNDECLARATIVE uses.

5. What we expect of a theory of tense is a story connecting form and time, and in this section I venture mine, for the primary pattern. But primary-pattern verb clusters come in sixteen syntactical forms (cf. section 2), and the WHOLE story, chronicling how the speaker eventually settles upon one of these sixteen, evidently involves a number of independent decisions. Now, in what order these decisions are taken by the best speakers I, of course, cannot say; but MY speaker, pending outcry, saves the question of tense until last. In effect, by the time he turns to choose what can fairly be called the tense of his verb cluster, he has already — upon Heaven knows what arcane grounds — made his eight-fold choice among the aboriginal primary patterns (cf. section 2): he has lit upon a member of R. Let us join him then as, clutching his member of R, he confronts the task of arbitrating tense.

What he has to decide, in practical terms, is simply whether to use

his pre-selected member of R as it stands or to treat it to a dose or two of  $\varphi$  first; but of course the choice presents itself to him, the encoder, as a choice between alternative pieces of INFORMATION. The choice, surprisingly, is a ternary one: the speaker is obliged, willy nilly, to opt for exactly one of the following three pieces of temporal information:

- (i) It is (identical with) the point of speech;
- (ii) It is a point past with respect to the point of speech;
- (iii) It is a point past with respect to some point itself past with respect to the point of speech.

He then encodes his selection in accordance with the following instruction:

To select alternative (n), apply  $\varphi$  to your chosen element of R  $n - 1$  times.

— And there we have the prosaic mechanism of the code itself. The interesting question, of course, is how the temporal information he has thus encoded enters into the speaker's overall message. Or in other words, what is the 'it' of alternatives (i)-(iii)?

It is the answer to this question that imparts to the problem of tense its agreeable subtlety. For the fact is that the encoded temporal information relates to a different point, and hence contributes differently to the total message, depending as the use imposed upon the verb cluster is prime or undeclarative. Let me baldly state the answer at once. Then I can devote the remainder of my essay to explaining it.

Whenever a use of either kind, prime or undeclarative, accrues to a primary-pattern verb cluster, there is always a condition specified, the PREDICATION CONDITION. In the case of a prime use, what is registered by the tense of the verb cluster is the time of this condition's SATISFACTION. In the case of an undeclarative use, it is the location of what I call the CHANGE-OVER POINT.

6. The aim of the present section is to elucidate the proposals of section 5 concerning PRIME uses. Observe, to begin with, that while

(15) *Hodde scores for Spurs*

on the lips of a football commentator, betokens an event simultaneous with the point of speech,

(16) *Hodde scored a few seconds ago*

reports an event simultaneous with a moment somewhere behind the point of speech, and

(17) *Hodde had scored a few seconds before the disturbance*

recounts an event simultaneous with a moment somewhere behind an independently established past point. Thus each of *scores*, *scored* and *had scored* admits of a prime use portraying a unitary event as SIMULTANEOUS WITH a point  $p$ , the only difference among the uses being

in what is understood about the location of  $p$ . In these three uses, in other words, the SAME CONDITION is conveyed to be satisfied at a temporal point  $p$ , variously located.

Similarly, comparing

(18) *Grannie lives in Cockroach Lane*

(19) *At the time of her arrest, Grannie lived in Cockroach Lane*

(20) *A year before her arrest, Grannie had lived in Cockroach Lane*

we observe that each of *lives*,  $\varphi(\textit{lives})$  and  $\varphi(\varphi(\textit{lives}))$  tolerates a prime use in which a state of affairs is depicted as EXTENDING UP UNTIL some point  $p$ , with  $p$  as described in alternatives (i), (ii) and (iii) of section 5 respectively. Once again, then, the SAME CONDITION is portrayed as satisfied at a point  $p$ , variously located.

And this is the way of it, quite generally, so far as prime uses are concerned. Always, there is a POINT OF PREDICATION  $p$ ; and getting the hang of a particular use involves coming to twig what it is that is conveyed concerning this point  $p$ , what condition is represented as satisfied at  $p$  by the use, what the PREDICATION CONDITION is (let us henceforth say) for the use. What is deponed in each of (3), (4) and (5), for instance, is that a certain pre-arrangement is VALID AT  $p$ , and the same, nearly enough, goes for

(21) She  $\left. \begin{array}{l} \textit{is} \\ \textit{was} \\ \textit{had been} \end{array} \right\}$  *getting married next spring*

(22) I  $\left. \begin{array}{l} \textit{am} \\ \textit{was} \\ \textit{had been} \end{array} \right\}$  *busy all day tomorrow*

In

(23) He  $\left. \begin{array}{l} \textit{is} \\ \textit{was} \\ \textit{had been} \end{array} \right\}$  *going to resign before next Christmas*

a determination or resolve to resign before next Christmas is alleged to PREVAIL AT  $p$ ; in

(24) Grannie  $\left. \begin{array}{l} \textit{is} \\ \textit{was} \\ \textit{had been} \end{array} \right\}$  *about to jump*

Grannie is represented as ON THE POINT of jumping AT  $p$ ; in

(25) Grannie  $\left. \begin{array}{l} \textit{has} \\ \textit{had} \\ \textit{had had} \end{array} \right\}$  *to pay for the damage*

it is some sort of obligation that is portrayed as OPERANT AT  $p$ ; and so on and on: the uses come in matched threes, one for  $r$ , one for  $\varphi(r)$ , and one for  $\varphi(\varphi(r))$ , all portraying the SAME CONDITION satisfied at a

temporal point  $p$ . I do not of course claim to have captured the niceties of any of these predication conditions. Such artistry were wasted here. (Furthermore, seeing that the predication condition is specified, not by the verb cluster alone, but by it together with much else – often everything else – in the verb cluster's clause, we cannot reasonably covet at this stage a comprehensive account of its articulation for the general case, for which hardly less would suffice than the code of English broken in toto: cf. section 10.)

Occasionally, by the way, a member of a trio is missing, usually the third. Thus while (26) and (27) are certainly English, the same can hardly be said for (28):

- (26) *I'm to be Queen of the May, Mother*  
 (27) *He was to be thrice Lord Mayor of London*  
 (28) *She had been to be a virtuoso pianist*

I expect an explanation for each such gap.

When the verb cluster  $r$  is phase-modified,  $\varphi(r)$  is a member of T, and  $\varphi(\varphi(r))$  does not exist; but otherwise the pattern is the same. It has long been appreciated by grammarians that what is affirmed in, for example,

- (29) *Hodde has just scored*  
 (30) *At the time of the disturbance, Hodde had just scored*

is exactly the same, except that each affirms it about a different reference point, and moreover that for (29) that reference point is the point of speech, while for (30) it is a point somewhere backwards of the point of speech, namely the time of the disturbance (e.g. Murray 1795:42ff; Sweet 1891:98f). The reference point we recognise as our familiar  $p$  – and, in short, these cases too conform exactly with the provisions of section 5.

It is a commonplace these days among grammarians that each member of T admits of both 'past perfect' uses and 'past past' ones (e.g. Jespersen 1931:81; Palmer 1974:54f), and we catch their drift when we compare the performance of *had scored* in (30) with its performance in (17). For, while (30) affirms concerning a past point  $p$  just what (29) affirms concerning the point of speech, that analysis is unavailable to (17): observe that

- (31) *Hodde has scored a few seconds ago*

is not an English sentence. Rather (17) affirms what (16) does; or more exactly, what (16) affirms about a past point  $p$ , (17) affirms about a point  $p$  which is past with respect to some already past point. Seeing (cf. section 2) that each element of T can be generated EITHER by one dose of  $\varphi$  from a phase-modified element of R OR by two doses of  $\varphi$  from a non-phase-modified element of R, the proposals of section 5 automatically predict this ambiguity.

The question naturally arises whether a constant meaning can be imputed to phase modification wherever it arises in the primary pattern. And the answer, it seems to me, is certainly: phase modification has the unfailing semantic effect of locating ONE point by depicting it as PAST WITH RESPECT TO SOME OTHER. On the one hand, (29) and (30) alike locate the goal as past with respect to the point of predication. On the other, (17) locates the point of predication itself as past with respect to the disturbance. The common factor is autoptical. In sum, phase modification can crop up at two different stages in the encoding process — either in the prior choice of an aboriginal element of R or in the subsequent administration of a second dose of  $\varphi$  — and although it always signals that one point is past with respect to another, what the points ARE which are thus separated depends upon the stage of the encoding at which the phase modification enters. For, of course, when phase enters in the first way, it contributes to the articulation of the predication condition, whereas when it enters in the second it helps locate the point of predication.

So far in this section the sample sentences have all been one-clause ones; but it would never do if that encouraged the illusion that prime uses are somehow intimately concerned with assertion. We recognised the same use of *returned* in (9) as in (1), remember: hence the possibility of modus ponens. The point about (1) and (9) is that they admit of — indeed implore — interpretations under which the same proposition as is asserted when (1) occurs between fullstops is merely hypothesised when (9) does.

And if the notion of a PROPOSITION just invoked is permissible, then I can expand slightly upon what I said in section 5 about prime uses: To parse a clause in such a way that its verb cluster receives a prime use is to interpret that clause as expressing the proposition that a certain condition is or was as a matter of historical fact satisfied at a time encoded into its verb cluster by means of the code explained in section 5. Prime uses are for expressing propositions, things that can be said Yea or Nay to.

7. It is not only prime uses of verb clusters that go to specifying predication conditions. Every use does; and in particular every undeclarative use does. The condition upon a temporal point  $p$  whose satisfaction for some past value of  $p$  is averred in (1) is patently the very same condition whose satisfaction for some future value of  $p$  is contemplated in the *if*-clauses of (2), (10) and (11). Similarly it is the same condition whose satisfaction at the point of speech is on the one hand affirmed in (3) and on the other mooted in the *if*-clause of

(32) *If the conference began next Monday it would suit me better*

and again it is the same condition whose satisfaction at the point of speech is on the one hand affirmed in (29) and on the other mooted in the *if*-clause of



(33) *If Hoddle had just scored he would not be on the bench.*

What is different about undeclarative uses is that it is not the time of the condition's satisfaction that is registered by the tense of the verb cluster. This we know already, from a glance at Figure 2 (where, we now see, the time listed in the left-hand column is the contemplated time of the predication condition's satisfaction). So something else conditions the tense in these undeclarative cases, and in the next section I shall try to explain what it is. Meanwhile, the present section will be engrossed with prefatory remarks about *if*-sentences and their interpretations. The point of this is that undeclarative uses are sequestered in non-principal clauses, and in this essay, for definiteness, I shall be concentrating on their haunts in *if*-clauses.

As a matter of history, logicians and grammarians have always sponsored flatly opposed programmes for analysing *if*-sentences. The logicians have championed the precept that *if* is a BINARY CONNECTIVE, which, being interpreted, means that not only the principal clause but also the string of words in the scope of *if* are to be parsed as independent grammatical sentences (e.g. Quine 1966a:163; Anderson & Belnap 1975: 477ff). The grammarians have meanwhile gone sturdily on classifying *if*-clauses as ADVERBIAL (e.g. Curme 1931:318ff; Kruisinga 1932: 400ff). I, perversely, sympathise with both parties. On the one hand, *if* occurs in (9) as a binary connective: as we remarked at the time (cf. section 4), (1) is understood in the context of (9) exactly as it is when it occurs on its own. On the other hand – and this is what impressed the grammarians – an *if*-clause can also occur as a grammatical component of its main clause's verb phrase (or predicate). For example, (14) patently means

Germany would-if-Hitler-had-invaded-England-in-1940 have won the war

and (10), granted its most natural interpretation, likewise means

They will-if-she-returns-the-tickets-tomorrow refund her money

Here the *if*-clause is not MEANT to be taken on its own.

The underlying point – need I labour it? – is that verb clusters in the wake of *if* are accessible both to prime and to undeclarative uses; and while the grammarians have fastened upon the undeclarative cases, the logicians have been preoccupied with prime ones – to such an extent, indeed, that they have regularly taken it upon themselves to rewrite sentences like (10) and (14) so as to endow each with an 'antecedent' (e.g. Aune 1967:128; Lewis 1973:2f), the object of this exercise being, precisely, to contrive a prime use for the verb cluster of the *if*-clause.

As a further matter of history, two tantamount terms have wretchedly been banded in connection with *if*-sentences: 'conditional' and 'hypothetical'. Yet it is strange that the terms should be tantamount, for the

two notions are really very different: stipulating a condition is hardly the same as proposing a hypothesis. In my submission, each of these terms owns a certain aptness — but to different cases. The term ‘hypothetical’ is appropriate in certain — but only certain — instances where the *if*-clause harbours a prime use; whereas, when the verb cluster in the scope of *if* receives an undeclarative use — when the *if*-clause itself is construed UNDECLARATIVELY, let us sometimes say for short — ‘conditional’ is more the mot juste. At all events, it is thus that I shall deploy the two words.

The cases where the verb cluster in the wake of *if* receives a prime use are not properly our present concern, but perhaps an aside will not go amiss concerning them. It is not always so, but typically in such a case the role of the sentence in the scope of *if* is to introduce a HYPOTHESIS, and then the principal clause announces a consequence CONCLUDED from that hypothesis — from that hypothesis together with anything at all that the speaker takes for a fact. Take (34), for example:

(34) *If Grannie is here she is invisible*

Its eminent assertibility in present circumstances I explain as follows. First, the *if*-clause introduces the HYPOTHESIS that Grannie is here. It happens to be a false hypothesis, indeed an EVIDENTLY false one; but then, hypotheses are never the worse for that. Secondly, as a matter of observational fact, this room is devoid of Grannie-irradiated light. But, thirdly, from the hypothesis that Grannie is here and the fact that there is no sign of her here, it FOLLOWS DEDUCTIVELY that Grannie is invisible.

(There is a restriction on what one may adopt as the proposition of the *if*-clause. It is in the nature of hypothesising that a speaker may not entertain as a hypothesis anything to whose falsity he is simultaneously committed: while its negation is in his ‘commitment store’ (cf. Hamblin 1970:257, 263), a proposition is inaccessible for adoption as a hypothesis. One cannot say, for example,

(35) *Grannie is not here; and if she is, she is invisible*

This explains why arguments of the form

*not-A; therefore not-A or B; therefore if A, B*

whose component steps are both impeccable, are nevertheless overall illicit.)

Still, hypothetical interpretations vie with numerous others. Thackeray’s intent in juxtaposing the two clauses of

(36) *If the dowager had been angry at the abrupt leave of absence he took, she was mightily pleased at his speedy return*

was evidently to point up a contrast; and whether

(37) *If Brad’s life was in danger, so was his bride’s*

is to be taken as drawing an analogy or a conclusion is decided from occasion to occasion by collateral information. Indeed, although this is no time to start itemising them, interpretations of *if*-sentences under which the verb cluster in the scope of *if* receives a prime use form a remarkably mixed bag. — Not like those under which the verb cluster in the scope of *if* receives an undeclarative use; for these, almost invariably, are **CONDITIONAL** interpretations.

8. Undeclaratively parsed clauses specify predication conditions: I have had occasion to say that already. So, of course, do clauses parsed as independent sentences; but in their case the clause also contains, encoded into its verb cluster, a specification of the time of the predication condition's historical satisfaction; and the resultant of these two factors, condition and time, is a proposition (thus section 6). Undeclaratively parsed clauses do not, however, express propositions. For example, the *if*-clause of (2), although it relates to the future, is not to be construed as expressing the proposition that Grannie **WILL** return the tickets tomorrow. That proposition can by all means be adopted as a hypothesis — as in (38), for instance:

(38) *If Grannie will return the tickets tomorrow we had better start at once trying to raise the money for her refund*

But that is not what happens in (2). Rather, the undeclaratively parsed clause simply specifies a condition — and then the principal clause goes on to hazard an outcome of the satisfaction of that condition. And that, I trust, is an entirely uncontentious description of the natural interpretations — **CONDITIONAL** interpretations — of all the *if*-sentences instanced in Figure 2.

The difference is very large between hypothetical interpretations of *if*-sentences and conditional ones. The speaker who affirms (9) gives it to be understood that he deduces that Grannie's refund was posted this morning from the hypothesis that a certain condition was, as a matter of fact, satisfied yesterday. But the speaker who affirms (10) lays claim to no deduction. Neither does he confide resort to any hypothesis. To arrive at the judgement conveyed by (10) a speaker is obliged to **IMAGINE** a certain condition satisfied some time tomorrow, and then to **IMAGINE** the consequences. To affirm (10) is to announce the result, not of a piece of deduction, but of a piece of imaginative speculation about the future. And similarly with a past case. When a speaker affirms (14), he is not intimating his adoption of the hypothesis that Hitler did as a matter of historical fact invade England in 1940 — as who should say (39), for example:

(39) *If Hitler invaded England in 1940, contemporary reports of the incident have not survived*

Rather, he is owning to conducting a fantasy in which Hitler is found in-

vading England in 1940 and Germany goes on to win the war. This is the FANTASY theory of conditionals.

Now, whatever else, a fantasy has a BEGINNING, a moment from which onwards imagination takes over from history. And in my decipherment it is this moment, the moment of the fantasy's inception, whose location is encoded into the verb cluster of the *if*-clause by the tense code. I call it the CHANGE-OVER POINT, and posit that its temporal location is encoded into the verb cluster by means of the code expounded in section 5.

In my submission, then, interpreting an *if*-sentence conditionally not only involves imagining the satisfaction of some condition specified in its *if*-clause; it also involves locating the point where imagination takes over, the change-over point *c*. Naturally *c* is always backwards of the contemplated time of satisfaction of the condition. The time of satisfaction lies within fantasy time, since satisfaction of the condition is always part of what is fantasised.

Already, then, we have a full explanation of the pattern we described in Figure 2. If members of R always locate *c* at the point of speech, then it follows that only uses mooting FUTURE satisfaction are accessible to members of R. If the  $\varphi(r)$  construction is the construction for locating *c* backwards of the point of speech, then the undeclarative  $\varphi(r)$  uses should be precisely those mooting satisfaction either AT the point of speech or BEYOND it. And if only elements of T locate *c* backwards of a past point, then only elements of T should moot PAST satisfaction.

The conception of a change-over point is entirely homely. I daresay almost any narrative is conceived, implicitly at least, as following in the wake of some sort of past. It is not as if the beginning of the story was to be taken as the Beginning of History. Just so, a fantasy beginning at *c* takes over, as ITS past, the history of the real world up until *c*. Historical facts with dates earlier than *c* are accepted in the fantasy because, in a sense, they are part of it. They belong to its past. Up until *c*, in other words, real world and fantasy 'world' share a common history. In a fantasy which opens with Hitler's invading England in September 1940, the status of the BEF's rescue from France three months earlier is as assured as its status in history itself: the only question, either way, is whether it actually happened.

But if historical facts of the pre-*c* era command automatic admission to the fantasy, historical facts of the post-*c* era are on an entirely different footing. There may not be any, of course, for *c* may lie at the point of speech. But if there are, then although the fantast is free to borrow some of them to fill out his fantasy, he nevertheless defeats his purpose if he borrows them all (*If everything had happened exactly as it actually did . . .*); and therefore the borrowing is perforce SELECTIVE. Debating what would have happened if Hitler had invaded England in September 1940, we make free use of the actual weather reports of the period to inform our reconstruction, but we feel unentitled to enlist,

as a further 'factual premiss' (Lewis 1973:68), the historical absence of storm-troopers from the south-coast resorts throughout September.

The significance of *c* in a conditional interpretation of an *if*-sentence, then, is that it separates an earlier era whose history is sacrosanct from a later era whose historical facts, if any, are liable to imaginative revision. To locate *c* is therefore to settle an evidential question.

In the next section I shall try to ingratiate the thesis of this one.

9. When it is FUTURE satisfaction of the *if*-clause's predication condition that is contemplated, I think received opinion is that it makes no semantic odds whether the condition is specified using an element *r* of R or the corresponding element  $\varphi(r)$  of S; (40) and (41), for example, are seen as much of a muchness (e.g. Lewis 1973:4):

(40) *If war is declared tomorrow I will enlist*

(41) *If war was declared tomorrow I would enlist*

Jespersen feels that the 'choice' between the two 'denotes a slight difference only in degree of probability' (1940:377) – probability, he means, of war's being declared tomorrow, so far as (40) and (41) are concerned. And true enough, it is (41) one expects to hear in times of international harmony and confidence, and (40) that one expects when war is imminent. But, with respect, an exacter account would observe that, although

(42) *If I won the Pools tomorrow I would buy a Stradivarius*

is greatly likelier than

(43) *If I win the Pools tomorrow I will buy a Stradivarius*

on the lips of one ungiven to having a flutter, EITHER comes naturally from the regular Littlewoods investor. Worse, elements of R are regularly used for specifying eventualities acknowledged remote:

(44) *Well, it was a close thing. If I ever have grandchildren – which, at the moment, seems a longish shot – and they come clustering round my knee of an evening for a story, the one I shall tell them is about my getting back into the bedroom just one split second ahead of that carving knife*

[P.G. Wodehouse, 1934]

There IS a difference between saying that and saying

(45) *If I ever had grandchildren and they came clustering around my knee, I should . . .*

but it plainly hasn't much to do with probability. Yet another perplexity for Jespersen's account is the fact that

(46) *If you invited me I would attend*

is POLITER than

(47) *If you invite me I will attend*

(cf. for example, Palmer 1979:135). For it will not be deponed, I trust, that this politeness is achieved simply by signalling improbability. The prelude confidence *I deem it improbable that you will act in such a way as to afford me gratification* is, after all, singularly ill-chosen as a means of ingratiating.

But all the above results, I submit, are explained by the proposal of section 8. The effect of the *r* form in (40) is to validate even the most recent communiqué; and therefore, at a time of mounting international tension and mobilising armies, the speaker who selects (40) confides a resolve informed by the latest known developments. On the other hand, the effect of the  $\varphi(r)$  form in (41) is to waive up-to-the-minute news; and therefore, at times when the contingency of hostilities is remote, the speaker who prefers (41) to (40) is spared the need to contemplate so rapid a deterioration in diplomatic relations, that is, so SUDDEN a war. The inveterate non-gambler cannot fantasise his winning the Pools tomorrow without setting aside a PRESENT FACT, namely, that he is an inveterate non-gambler. The *r* form is accordingly unavailable to him: his fantasy must needs commence somewhere back in the past, before his inveteracy solidified. Not so for the regular Pools man, of course: unless HE believed he could win the Pools tomorrow he would not BE a regular Pools man. Not that they completely coincide in effect, of course, even on his lips. The slight but perceptible access of generality when (42) is preferred to (43) results from (42)'s switching to fantasy EARLIER: by disintitling all historical facts about his immediate circumstances, the speaker implies that his resolve does not depend narrowly on them. By the same token, when Bertie is elaborating the traces of his encounter with the carving knife, what he intimates by delaying *c* until the point of speech is their vividness: the choice of bedtime story is made in the light of everything that has happened since. It would be a different matter were Bertie acknowledged to be sterile, of course. In that case we should likely find him venturing (45). But in that case future satisfaction of the predication condition would be inhibited by a present fact: small wonder THIS Bertie would locate *c* in the past. — Unless of course (and there is always this possibility) he wanted to speculate about satisfaction of the predication condition even GRANTED present circumstances:

(48) *If I ever have grandchildren it will be a miracle*

The deference of (46) arises again from the  $\varphi(r)$  form's excluding some PRESENT state of affairs from automatic acceptance in the fantasy by changing over before its onset. Here, of course, it is the host's present intentions that the speaker thus courteously saves; and, in short, the idiom effects an elaborate acknowledgement of the host's authority over his own invitation list.

Someone invites me to lunch one day next week, adding

(49) *If you come next Wednesday, you will meet Grannie*

or, more formally,

(50) *If you came next Wednesday, you would meet Grannie*

I naturally plead a prior engagement for next Wednesday . . . whereupon it ceases to be civil for him to persist with either (49) or (50), civility demanding

(51) *If you had come next Wednesday, you would have met Grannie*

But this resort to the  $\varphi(\varphi(r))$  form is only to be expected in the light of the thesis of section 8. For politeness requires that the 'fact' be conceded of my prior engagement, and since that fact cohibits any fantasy of my coming next Wednesday, politeness requires that the alleged engagement, contracted in the past, be excluded from the fantasy by changing over even earlier. Similarly, once it is known that Grannie has burnt her tickets, one volunteers (11) rather than (10) or (2): unless one is bent upon fantasising the return of no-longer-existent tickets, one is obliged to locate *c* somewhere backwards of the independently established past point of their historical destruction.

It is still, I think, the prevailing view that, whenever a member of *S* moots the present or past satisfaction of a condition, that condition is thereby conveyed to be, as a matter of historical fact, unsatisfied. This is the view celebrated in the household notion of an 'unreal' or 'counterfactual' conditional, and there is no disputing its allure: at first blush, (12) and (13) seem both to confide that your father is dead, and (14) that Hitler did not invade England in 1940 (cf., for example, Sweet 1891: 110; Poutsma 1926:162; Jespersen 1931:112ff; Curme 1931:426f; Kruisinga 1932:411; Quine 1966b:21; Walters 1967:212; Mackie 1973: 64f, 71, 107; Palmer 1974:140, 1979:139ff). Lest it be conceived an objection to my analysis that it fails to predict this phenomenon, allow me to point out that the phenomenon is in fact spectral. The received view is simply mistaken, and the mistake by now well advertised: these locutions can occur in contexts where the speaker's standpoint cannot conceivably include an antecedent acknowledgment of the condition's unsatisfaction (cf., for example, Chisholm 1949:483; Anderson 1951:35ff; Burks 1951:366; Strawson 1952:84n; Adams 1975:111f; Stalnaker 1976: 186f).

The real point about these cases is the obvious one: that in each of them the fantasised satisfaction of the condition lies in already experienced time. One is fantasising about things that have ALREADY HAPPENED. Whether your father is alive now is a question of historical fact; yet each of (12) and (13) enjoins a FANTASY in which he figures alive. Now SOMETIMES the circumstances in which one thus lapses into fantasy are circumstances in which the condition's actual unsatisfaction is already established (*Such a shame your father did not live to see her*

today); but sometimes not, for sometimes the object is precisely to CANVASS whether the condition is in fact unsatisfied. One elaborates a fantasy in which the condition is satisfied, and then confronts the elaboration with history. The method is a favourite of detectives, who call it 'reconstruction' (cf. Chisholm 1949:483; Adams 1975:145n). Sometimes fantasy and reality clash, indicating dissatisfaction of the condition (*Still no response to our advertisement. If your father was alive he would have answered it by now. So I'm afraid . . .*). Sometimes, on the other hand, as when his reconstruction confirms a detective in a suspicion, fantasy and reality contrive to agree, to the credit of the hypothesis that the condition IS in fact satisfied (*Perhaps my father is not dead after all. I believe that very old man over there is he. — It could be so: if your father was alive he would be a very old man*). Those authorities — even Jespersen — who embrace the 'irrealis' interpretation of such locutions have simply overlooked some of the evidence.

I hope the theory I have crammed into the above pages is precise and falsifiable. But inevitably there are loose ends all over the place, and in my concluding section I shall try to tie some of them off.

10. All my examples of undeclarative uses have been drawn from *if*-clauses. But undeclarative uses, and especially undeclarative future uses of elements of R, flourish in dependent clauses of many different kinds (*Follow the leader wherever he GOES and do whatever he DOES*). And always, I submit, the tense of the clause locates, via the code of section 5, the starting-point of a period which is to be the subject of an imaginative construction. It fixes the evidential standpoint of a fantasy in which a condition, the predication condition, is imagined satisfied.

One urgent question is whether there are other uses of primary-pattern verb clusters besides prime ones and undeclarative ones. Do there occur uses of primary-pattern verb clusters where the relation between temporal content and syntactical form is not as expounded above? The answer is that there is at least one major phenomenon whose influence upon the syntactical form of the verb cluster I have not considered. It has to do with the expression of generality. When, for example,

(52) *If Baby cries, we beat him*

(53) *In those days, if a sailor died during a voyage, he was buried at sea*

receive their natural 'whenever' interpretations, their *if*-clauses do not occur as independent sentences. In the context of (52), *Baby cries* expresses no proposition. On the other hand, the uses accruing to *cries* and *died* in (52) and (53) are patently not undeclarative. Generality with respect to occasions of satisfaction is evidently an essential ingredient of the overall message in any such case; but I have nothing to propose here about the code whereby this ingredient is injected. Therefore these uses outstrip the scope of this essay.



No treatment of tense would be complete without mention of BACKSHIFT, or sequence of tenses, as when a first speaker's contributions

(54) *I hate Grannie*

(55) *If you move you will be shot*

are subsequently reported in these terms:

(56) *He said he hated Grannie*

(57) *He said that if I moved I would be shot*

(e.g. Jespersen 1931:151ff; Palmer 1974:44ff). Here, evidently, the tense undergoes exactly the same translation as do the personal pronouns. When the second speaker resorts to *he* and *I* respectively where the first employed *I* and *you*, it is because they are his way of referring to the SAME PERSONS as the first speaker meant by *I* and *you*. Just so, the second speaker says *hated* and *moved* in order to fix, respectively, the point of predication and the change-over point at the SAME LOCATIONS as the first speaker did by saying *hate* and *move*. The rationale of backshift is gratefully transparent: it adjusts for changing circumstances of utterance so as to preserve substance of message.

The device of singular *were*, on the other hand, is of no evident utility whatever (Poutsma 1926:164; cf. Jespersen 1931:129ff). Here the whole truth is that, when elements of S are used undeclaratively, *was* is replaceable — ad libitum and therefore synonymously — by *were*. Another egregious contraption is WAS TO, as in

(58) *If she was/were to return the tickets tomorrow they would refund her money*

patently unrelated to the BE TO of (26) and (27) (Palmer 1979:148), and as strictly redundant as singular *were*. Then also there is the phenomenon, again sui generis, and again redundant, of *should* in *if*-clauses. Moreover *should* leaves it unclear where *c* is: which of (59) and (60) ought one to say?

(59) *If I should see her I will remind her*

(60) *If I should see her I would remind her*

An interesting subtlety is discovered in

(61) *The explorers now faced an agonising decision. If they delayed any longer they would be trapped by the tide, but if on the other hand...*

where the explorers' dilemma is expounded from the explorers' own viewpoint — demonstrably as a result of the tense: change *delayed* to *had delayed* and the effect is lost. The means of it, I submit, is as follows. The change-over point which *delayed* deftly identifies is the explorers' own moment of decision, the very point at which they might

themselves have observed

(62) *If we delay any longer we will be trapped*

It lies at a single remove behind the point of speech. A speaker bent instead upon an imaginative reconstruction of the course of events would need to locate *c* as lying backwards of THOSE EVENTS and hence at TWO removes behind the point of speech. He would say *had delayed*.

When the verb cluster of an *if*-clause attracts an undeclarative use it usually turns out that the PRINCIPAL verb cluster includes a secondary auxiliary (cf. section 1). Thus each of the *if*-sentences instanced in Figure 2 has either *will* or *would* in its main clause. Now, it will not have escaped notice that the particular choice between *will* and *would* in the main clause is conditioned by the format of the verb cluster in the *if*-clause. It is a matter of observation that format R demands *will*, format S *would*.

But, according to the proposals of section 8, it is the peculiarity of members of format R, used undeclaratively, that they invariably postpone *c* to the last possible moment, the point of speech, with the effect that no restriction at all is placed upon the historical information accessible as evidence. Members of S, in sharp contradistinction, always locate *c* earlier: the fantasy encroaches on the already experienced. In my decipherment, then, we switch from *will* to *would* as soon as *c* retreats behind the point of speech, which means, as soon as the utilisation of factual information ceases to be maximal. But to pursue this were to trespass on the domain of the secondary-pattern verb cluster.

English is a code for encoding information into signals, and our aim has been to crack a tiny portion of that code. What initially intrigued us was the erratic behaviour of certain segments discovered in signals: when we considered the overall messages communicated by broadcasting certain signals, we were forced to the conclusion that these particular segments of the signals were contributing non-uniformly to those overall messages. And not just non-uniformly, but in two systematically different ways. We were intrigued, but not dismayed: there is nothing in the notion of a code to say that quite different inputs of information should not result in the very same output signal. And so we surmised that these segments of signal possessed alternative DERIVATIONS, i.e., that they could arise from two distinct encoding routines. As codebreakers, it behoved us then to start segregating the jobs we sensed that these segments were doing into two groups, prime ones, and undeclarative ones, so that we could try guessing the encoding procedure for each group separately. According to our eventual guesses, the speaker of English who wishes to contemplate satisfaction of a certain condition in a fantasy commencing at a particular point in the 'A series' (McTaggart 1908:458ff, 1927:10ff), and the speaker who wishes to express the proposition that that same condition is or was actually satisfied at that same point in the A series, both select the same verb cluster to do so. Like phase modification then (cf. section 6), tense modification can evidently be resorted to at two different

stages in the encoding procedure.

In English, different messages regularly come to be encoded in the same string of words. Thus

(63) *If Grannie cheats she ought to be horsewhipped*

is open alike to an interpretation under which *cheats* receives a prime use and the *if*-clause moots a current practice, and to an interpretation under which *cheats* receives an undeclarative use and the *if*-clause moots a future deed. Similarly, although the overwhelmingly more natural interpretation of (10) is a conditional one, (10) also supports a hypothetical interpretation with *she returns the tickets tomorrow* construed as deponing a currently valid pre-arrangement, along the lines of (3).

And therefore it is a grievous error to impute truth, entailment and the like to English sentences. The business of Logic is not with sentences but with interpretations of them.

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