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ÉTUDES DÉDIÉES A ROCH VALIN

EXTRAIT

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MEANING AND FORM IN "WHEN"-CLAUSES

In a sentence like

I'll pay you when I have the money.

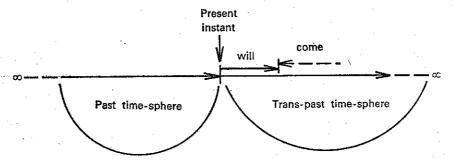
the form of the verb in the temporal clause poses a problem for Frenchspeaking students, who often tax English with being illogical. After all, the "having" like the "paying" is, at the moment of speaking, yet to be realized so they wonder why it would not be correct to say... when I'll have the money. The grammar books are of little help here because for the most part they simply observe that will is not used in when-clauses, except perhaps in indirect speech. Some grammars do attempt to explain this usage by speaking of the "deletion" of will in such contexts, presumably on the assumption that have here really has the same meaning as will have rather than its usual "present" (i.e. "transpast") meaning. That is to say, it is taken for granted that in this particular syntactic environment, the trans-past form have changes its meaning. Stemming from this impression that meaning varies with the context is the basic premise of such approaches — that a grammatical form cannot be consistently and directly linked with any one underlying meaning. It may give rise to an array of rules linking "signal" to "semantic interpretation" and yet it does not lead to a satisfying explanation because there is no reason given why the meaning changes and yet the form does not. All we know, in the final analysis, is that will have is persona non grata in a given syntactic environment.

The contrary premise—that a grammatical form is, in all its uses, directly linked with one underlying (potential) meaning—is that of Psychomechanics. For the linguist this premise entails not only the task of discerning the underlying grammatical meaning arising from the system in tongue, but also that of detecting its presence beneath each of the observable contextual senses of the form in discourse. Hence it is the underlying potential meaning which grants or refuses permission for the use of a form, in view of the context being put together. This amounts to saying that Psychomechanics tries to explain the use of a given item in terms of the meaning it expresses, an approach for which the problem evoked above provides a good test case.

The first of the above tasks—discerning the potential meaning of the verb tense—has, in a general way, been completed in the working out of the theory of the tenses of the indicative in English. This, it will be recalled, is based on the observable fact that there are only two morphological tenses in the indicative, the Past and the Trans-past (or Non-past), to cover the whole unlimited stretch of universe time, which, therefore, would

appear to be represented as made up of the past time-sphere and the trans-(or beyond) past time-sphere. This implies that the Trans-past Tense can evoke as real any span of time that is not in the past time-sphere; that is to say, in discourse it expresses an event as in the same stretch of time as the present, the first instant of the trans-past time-sphere, and so as partaking of the degree of reality inherent in this unique instant,¹ the instant of living consciousness. This, then, is what characterizes the Trans-past Tense: the situating of an event in the same stretch of time as the present of speech.

It is precisely this characteristic which permits us to distinguish the Trans-past Tense from the other verb form involved in the problem we are examining, namely the will + infinitive construction. The manner in which this construction presents its event can be seen by examining the formal meaning of each of its component parts. Will, a Trans-past Tense itself, evokes a segment of time whose first instant coincides with the present, and whose subsequent instants stretch away toward the future as far as may be appropriate for the particular sentence being constructed. As an auxiliary, however, will has lost most of its lexical matter and so, unlike "full" verbs, cannot evoke a full-fledged event in the segment of time it thus expresses; as a "modal" auxiliary, all it can evoke by way of lexical "content" is the potentiality of some event, the chances of an event's taking place. The event itself must be expressed by the infinitive, the most virtualizing form in the system of the verb. The event in this construction is potentialized, so to speak, precisely because it cannot occupy the segment of time containing the present instant, this segment being occupied by the auxiliary, and so the event can only be situated beyond this segment in the direction of the future. A diagram will help to make this clear:



Will, then, thanks to its inherent meaning of "actual probability," can present the event expressed by its infinitive as a future one, as something predicted, because it keeps the infinitive away from the present, holds it in abeyance. Guillaume called this an ectopic future. As such the event expressed by the infinitive is seen as dependent or conditioned because

^{1.} This impression of reality, clearly expressed in a sentence like *He comes tomorrow*, may be tempered by other elements in the sentence, such as if in *If he comes tomorrow*...

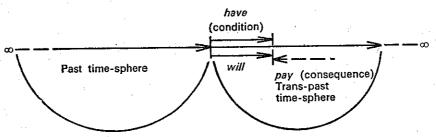
its place in time is not auto-determined but is represented as contingent on that of another verb, the auxiliary's.

An event seen as sharing the time stretch, and hence the reality, of the present instant (e.g. He comes tomorrow) as opposed to one seen beyond the time stretch containing the present and hence as merely a probability (e.g. He will come tomorrow) — these are the pertinent traits of meaning brought to the sentence by the two forms involved in the contexts to be examined. The next step is to see if it is these meanings that condition the use of one or the other form in clauses introduced by when and similar temporal expressions. More concretely, the problem is to determine why English (unlike a language like French) expresses what in extra-linguistic reality is a future happening by means of a Trans-past Tense.²

The principle proposed here as governing this apparently arbitrary usage can best be introduced by first examining conditional sentences (and here, English and French usage is similar). In a sentence like

If I have the money, I'll pay him.

the protasis expresses its event (having money) as a condition, a pre-requisite to be fulfilled in order that the event in the apodosis, the consequence, may take place. The crucial point here is that the relation between the two clauses—that of condition to consequence—involves not only a logical link but also a chronological link: the condition—any condition—must somehow be seen as arising before its consequence. Hence the event in the protasis is expressed by means of the Trans-past Tense, which situates it, as a condition, in the same segment of time as the present instant whereas the event in the apodosis is expressed by means of the will + infinitive construction, which situates its consequence-event beyond the present-containing segment in the direction of the future.³ A diagram will help to make the relationship between the two events clearer:



This necessary temporal relationship between condition and consequence—the condition precedes the consequence in notional chronology—

^{2.} Comparison with the French has provided a convenient means of discerning pertinent examples: those where the Trans-past in English corresponds to the Future in French.

^{3.} The comparatively rare occurrence of the will + infinitive construction in the protasis confirms this analysis. Thus in a sentence like If you will tell me your father's address, I shall let him know it is the remaining lexical matter of will (to do with the notion of willingness) which functions as a condition. The whole question deserves much more attention than can be paid it in the present context.

provides the principle in the light of which we shall examine temporal clauses. We shall see that whenever the speaker views the event in a temporal clause as conditioning that in the principal clause he represents it as somehow prior to the conditioned event and so uses the Trans-past Tense in the temporal clause. A particularly clear case of this is provided by a sentence similar to the one above:

I'll pay him when I have the money.

Here having money is obviously a necessary (though as yet unrealized) pre-requisite to paying someone, this notional priority being expressed by means of the Trans-past have; by contrast, the effect of will in the principal clause is to situate the paying beyond, and so to suggest that it is contingent on, the having. Likewise in

We shall light the lamp when it gets dark.

the eventual getting dark is seen as prompting, as conditioning—and so as prior to—the lighting, though it is seen as merely a sufficient rather than a necessary condition. Again in

He'll come home when the dance is over.

the temporal clause serves to situate the main-clause event by showing that the place in time of the coming home is conditioned by, or contingent on, that of the dance being over.

It might be noted in passing that will + infinitive is not the only means available for expressing the posteriority of the conditioned event. Examples of other possibilities are:

You must come and see us when we are settled. To be sent on when I know I'm staying. Call me when you're ready.

Be it another modal, the to-infinitive or the imperative, the conditioned event is evoked as beyond the segment of time containing the moment of actuality and so presented as dependent on the yet-to-be-realized conditioning event.

When no such virtualizing form as will + infinitive, the imperative, etc. is used, no conditioning relation between the two events is expressed and so the resulting nuance in discourse is quite different. Thus in a sentence like

He comes home when the dance is over.

one gets the impression that some already existing arrangement (such as a parent's determination when laying down the law) or custom (Cf. He usually comes home...) governs the realization of the event in the main clause more than the event in the temporal clause does. Since this governing factor is merely implied but not expressed, no conditioning relationship is expressed, and so the trans-past comes is used.

Similarly, no conditioner/conditionee relationship is expressed when both events are evoked by means of the will + infinitive construction, as in:

Mr. Bevan and Mr. Morisson will face each other... on Wednesday when Mr. Atlee will also be present.

Here the main event's place in time (on Wednesday) is settled quite independently of the when-clause. If, however, on Wednesday were omitted, Messrs. B and H's. facing each other would be felt to depend on the presence of Mr. A. and so will be would no longer be used; that is to say, the Transpast is would be used to bring out a conditioning relationship by expressing an anteriority with regard to the facing:

Mr. B. and Mr. M. will face each other when Mr. A. is present.

A further consequence of thus instituting the conditioning relationship in this sentence is that the surbordinate clause would no longer be adjectival (incident to *Wednesday*) as in the original sentence, but adverbial in function (incident to *will face*) so that it can situate the facing in time.

Indeed, when-clauses with an adjectival function are not uncommon with the will + infinitive construction because there is no conditioning link with the other verb. For example:

...minimum is expected about 1966, when the Sun will be relatively auiet.

I... would like to look at the Preface more closely on my return, when I will be a little less rushed.

Wait till Tuesday, when you will see.

In November, I have a routine check-up, when I shall have him arrange for a hospital bed in January.

In such examples the Trans-Past would not be used, but in the following example it might be, though not without perturbing the sentence:

There may come a time when journeying to the Moon or Mars in a rocket will be as easy as a present-day trip by air from London to New York.

Here the adjectival when-clause must follow the noun it is incident to, time. However if will be were replaced by is, the clause would then be adverbial and so might be placed before the main clause (but then the substantive time would be left without any characterization and the sentence would be incomplete):

When journeying to the Moon or Mars in a rocket is as easy as a present-day trip by air from London to New York, there may come a time...

Like remarks might be made about the following example:

You will live to see the day when there will not be an English soldier on the soil of France.

In some cases either verb form might well be used in the when-clause, but not without a shift in meaning which, though subtle, is revealing. Thus in

I will work in the garden till the evening, and then, when it will be cooler, I will walk to Blooms-End.

The when-clause is incident not to will walk but to then: it tells of the temperature at that time of day. But with the Trans-past (... when it is cooler) the clause would be incident to will walk: the walking is to take place only after it cools off, whenever that may be in the evening. Similarly in

"You'd better have a sleep now," said Erik, "and then I'll come round and show you the sights when it's cooler".

the coming round and showing is to take place once it is cooler, but if the when-clause had read when it will be cooler, the sentence would have suggested "I'll come round after you have a sleep at which time it will be cooler." Finally, in

The Queen will visit the new town in May, when she will open the new hospital.

the Queen's visit is situated in time by means of the adverbial phrase in May, the adjectival when-clause serving to characterize May. With the Trans-past, the opening would be seen as a scheduled event. Even here the when-clause might be adjectival:

The Queen will visit the new town in May, when she opens the new hospital.

However, the when-clause might also be adverbial here (in which case there would be no comma) and tell us at what moment in May the visiting will take place. In this second reading, the opening is seen as conditioning the visiting, as determining when it will take place. Examples of this sort give eloquent testimony concerning the significance of the verb forms involved.

Will + infinitive is also found after when in noun clauses:

No one can tell when Ray Wilson, who played for England's World Cup Champions in 1966, will be able to run again.

Here the when-clause evokes the object of our present ignorance, but in no way conditions the place of can tell in time and so the Trans-past of be able is not used. Similarly in

Tell me when you'll be ready.

there is no conditioning link because the telling precedes, and has as its message, the moment of being ready. But if a conditioning link is felt between the two events, that is, if the being ready is seen as arising before and triggering the telling, then the Trans-past must be used:

Tell me when you're ready4.

^{4.} An interesting and perhaps revealing detail of usage might well be mentioned at this point: the fact that an adverb like *probably* would not be used in conditioning when-clauses but is often acceptable in non-conditioning when-clauses:

^{*} Tell me when you're probably ready.

Tell me when you'll probably be ready.

Probably dilutes the impression of reality attributed to the event by the verb form, and as such would appear to clash with the role of a condition, whose prior reality is taken for granted. The problem deserves further examination and reflexion within the whole framework of condition clauses since it may well throw further light on the nature of the conditioning relationship itself.

The when-clause, being adverbial here, can be shifted to the beginning of the sentence. Other examples of this sort are:

Write me when you will be in Paris. I wonder when he will come. I'll show you when he will be back.

This last example may well seem unacceptable to some speakers until it is put into its situation: a mother showing her child on a calendar when the father is due back. These examples again bring out the fact that the verb form (and the function of the subordinate clause) are determined by the meaning to be expressed, that is, by whether or not the speaker sees the event in the when-clause as conditioning—and so as preceding—that in the main clause.

To further illustrate the idea that the verb form is simply a means of expressing the speaker's manner of viewing, of representing the situation referred to in the sentence, it might be worth bringing up an ambiguous sentence at this point:

I'll know when he arrives.

One reading of the sentence involves a conditionning link (my future knowing of something depends on his arrival), with the result that the whenclause is adverbial, as in:

I'll know that when he arrives.

A second reading, involving no conditioning relationship, would be "at some future time I'll know the already determined date of his arrival," the when-clause being the direct object of know, as in:

Tomorrow I'll know when he arrives.

Another example allowing two interpretations is:

You can't choose when you are going to be sick.

Ambiguous sentences of this sort—ambiguous for the listener, not for the speaker—clearly show that it is not some set of syntactic constraints but rather the speaker's manner of conceptualizing, of representing, the situation which determines the sense of the sentence. In particular, they provide further evidence that what is of crucial importance in such sentences is whether or not the speaker sees a conditioning relationship.

So far we have been examining the conditioning relationship, with its inherent notional chronology, from the point of view of the verb forms. This brief examination has shown that if when with the actualizing Transpast is combined with a virtualizing expression (will + infinitive, imperative, etc.) the latter event is seen as contingent on the former insofar as its time of actualization is concerned, but that this relationship does not hold if both events are expressed by means of a virtualizing form, or of an actualizing form. So far then, the verb forms have proved to be meaningful when viewed in the light of our principle, and the meanings expressed have proved to be fully consonant with the general system of the indicative. Let us now turn to the conjunction to see what variations are found there.

Though when is by far the most common, there are numerous other

words and expressions available to express a temporal relationship between two clauses. 5 These can be roughly divided into three groups, according to whether they situate the event in the main clause before (e.g. before, until), during (e.g. as, when, while) or after (e.g. after, as soon as, immediately) that of the subordinate clause. Those expressing an after-relationship, for example,

We'll discuss that after we have lunch.

offer nothing new to our analysis because they explicitly evoke the posteriority of the conditioned event (discuss) with respect to the conditioning event (have lunch), itself yet to be realized. Even conjunctions expressing a during-relationship might be considered to evoke at least the beginning of the conditioning event as prior to the conditioned event, as in:

We'll discuss that while we have lunch.

Most revealing are those conjunctions that present the conditioned event as before the conditioning event because they would appear to contradict the notional chronology which provides the principle of our explanation and so offer an excellent test case:

We'll discuss that before we have lunch.

That the contradiction here is not real but merely an apparent one can be seen from the fact that, even in this case, the main-clause event is seen as contingent on that of the subordinate clause: the place in time of discussing is determined by that of having lunch, which is later. However, this referring of a prior event to a subsequent event can occur only if the subsequent event is known ahead of time—before either event takes place. Thus, in the above example the having lunch is presented as already agreed on, as taken for granted, and so as conditioning the place in time of discuss. Just the opposite would be true if the events were switched, as in:

We'll have lunch before we discuss that.

Here it is the discussing which appears as already settled and so as determining the place in time of having lunch. It is thanks to this foreknowledge of the speaker at the moment of speaking that the before-clause event can be represented as the conditioner, even though the main-clause event is to precede it in the reality of extra-linguistic happenings.6 That is to say, even here the conditioning event has a certain priority with regard to the conditioned event-hence the use of the Trans-past in the temporal clausebut it is a purely notional priority, one established by the mind, which has no counterpart in the sequence of external happenings. This point is worth emphasizing because it gives us a clear view of the fundamental relationship involved in all the sentences discussed here: this conditioning relationship, being strictly mental, involves a strictly notional chronology, a chronology which exists in the mind and which may or may not correspond

^{5.} EDGREN (1971, p. 28) provides an extensive list of them.

^{6.} In a sentence like the following, a similar external sequence is evoked, but there is no prior arrangement and so no conditioning relation:

We'll discuss it and then we'll have lunch.

to some extra-mental sequence of events. As a consequence, the chronology brought out by the verb forms is independent of that expressed by the conjunction.

Like remarks might be made about the following:

He'll come back before the snow flies. We'll be here until the cows come home.

In these two examples the foreknowledge of the conditioning event arises because the event is seen not as pre-arranged but rather as inevitable. Sometimes, however, futurizing will is found in a before-clause, as in the following example which provides a useful check on our analysis:

In a preliminary report (...) Sir Hugh Cairns stresses that several years must elapse before he will know whether the improvements (...) are permanent.

Here, the knowing in no way determines the elapsing—indeed the sentence implies, through lexical means, just the opposite. Since the before-clause does not evoke its event as a condition it is quite normal to find will + infinitive here, so that what has been described as an "exceptional and perhaps structurally more or less deviant" usage, is in reality quite normal English and as such provides a confirmation of the explanation put forward here.

Pushed even further, the principle invoked here can be seen operant even in cases where the conditioned event's existence (as an extra-linguistic reality) in no way depends on the realization of the conditioning event. Thus in

The sun will be shining in your room when you wake up.

the waking up can have no conceivable influence on when the sun will shine. And yet if the principle of our explanation is to be trusted, the verb forms indicate that there is a conditioner/conditionee relationship between the two clauses. All that depends on the moment of waking up is the particular moment of the shining evoked by the progressive infinitive. Thus the when-clause does determine the place of something in time: not that of the main event as a whole, but rather of some portion of it, namely that portion which the speaker represents by means of the progressive. Here then the conditioning relationship expressed by the verb forms, though it tells us nothing of external reality, does inform us of the economy of the thought processes involved in representing the events as expressed in the sentence.

This sort of usage, where the conditioning influence is limited to inner, mental reality, is found not only with progressive infinitives, as above,

^{7.} Edgren (1971, p. 109) comments thus from a statistical point of view.

^{8.} The progressive, it will be recalled, evokes only some midportion of its event's duration, as opposed to the simple form, which evokes the event as a whole. Thus if the simple infinitive (will shine) were substituted here the sentence would hardly make sense because it would evoke the whole of the shining from its beginning and so imply that the waking up in fact caused the sun to shine.

but also with infinitives in the transcendent aspect, where some moment in the aftermath is evoked.9 Thus in the example:

The snow will have melted when we get back.

the when-clause tells us which moment of the resulting state (that arising from the disappearance of the snow) is represented by the speaker. This sort of usage is also found with simple infinitives expressing a state, the moment of the state's duration that is evoked being determined by the temporal clause:

I'll be in Europe when the results come out.

In each of these three cases the main-clause event is seen as unrolling at slow cadence. Indeed, it would seem that an event visualized at slow cadence offers a limited view of its duration, limited to some moment of the duration; ¹⁰ any conditioning event, therefore, intervenes somewhere in its middle, and so can suggest a conditioning on the level of the speaker's activity of representation only. An event visualized at rapid cadence, on the other hand, is seen right to the end (as in our former examples); a conditioning event is felt to arise prior to its very existence in time and so the conditioning relationship is usually seen as reflecting not only the mental reality of representing the events, but also the sequencing of events in external reality.¹¹

The question of cadence and the closely connected one of situating an event (or some portion thereof) in universe time involve considerations that would lead us far beyond our present topic and so cannot be further pursued here. However, it is significant that our examination of what is, after all, a very restricted area of usage should lead us to the same general distinctions as those resulting from an examination of other areas of usage. Not only does this lend greater plausibility to the explanation here advanced, but the more general distinctions of cadence and of time (universe time as opposed to event time) receive still further confirmation.

The final sorts of usage to be examined here concern not temporal clauses, which we have been looking at so far, but clauses of another type where a similar use of verb forms suggests that the same conditioning principle is operant. Thus in a sentence like

Whoever opens the door will get a surprise.

the getting of a surprise depends on someone, as yet unknown, opening the door and so open, felt to be a conditioner, is represented by means of the Trans-past as prior to get, the conditioned event. Similarly in

Those who live after us will see great things.

the consequence "seeing great things" will be realized by anyone who has already fulfilled the condition "living after us." In both these cases the

^{9.} The transcendent, as has been explained elsewhere, evokes the event from some point in its result phase or aftermath.

See Tessier (1977, passim) for an extensive treatment of the question of cadence.
 As we have seen above, however, with conjunctions like before the notional chronology involved does not reflect the chronology of external events.

identity of the subject is left undetermined and it is the element of virtuality involved here that leaves a certain margin of contingency concerning the realization of the conditioned event. That is to say, the role of these subordinate clauses is to help localize the spatial support (the subject) of the main verb, a role which is made quite explicit in the following example:

Wherever I am I'll remember you.

Here the very fact of being somewhere, anywhere, is expressed as a condition of remembering. However, since the speaker cannot not be somewhere the remembering is to all intents and purposes a consequence of the person's very existence and so the sentence amounts to saying "I'll always remember you."

These clauses provide an interesting parallel with the clauses formerly examined. Where the temporal clauses have to do with situating the main event in time, these clauses have to do with situating it in space. Insofar as anything in our experience is concerned, there are no conditions more fundamental than the place in time and the place in space.

In the last sort of sentence to be examined here, it is tempting to see the expression of a third type of general condition, one of manner. In these sentences what is presented as yet to be determined is the degree to which some aspect of the event is realized, along with the condition for determining it. That is to say, the actualization of a given degree of the conditioning event constitutes the condition which will trigger the realization of a corresponding degree in the conditioned event. Hence in

The longer you wait, the harder it will be.

the degree of hardness finally realized is depicted as a consequence of the length of waiting. Similarly in

The sooner you start, the less nervous you will feel.

the degree of nervousness is seen as proportional to, and so as dependent on, how long it takes to get started. And, as always, the priority in notional chronology of the yet-to-be-realized condition with regard to the conditioned event is expressed by means of the Trans-past/will + infinitive pattern. 12

This concludes our survey of usage, which was intended to test the hypothesis put forward as an explanatory principle. According to this principle, the Trans-past verb form evoking a yet-to-be-realized event in temporal (and certain other) subordinate clauses is used for the grammatical meaning it brings with it, namely, a position in time—within the same segment as the present of speech—which is prior to that of the event in the principal clause. This priority corresponds to that necessarily implied in considering one event as conditioning the realization of another event. This principle has not only accounted for the constraints on usage examined

^{12.} Such considerations may provide a starting point for reflecting on the problem raised by Quirk et al. (1972, p. 756): "(...) it is not obvious why the first part of the sentence, and not the second, should be treated as the subordinate clause."

here but, for ambiguous examples and examples where both verb forms might be used, has also thrown light on distinctions that might otherwise have remained obscure because of the subtlety of nuance involved.

Though the evidence presented here is by no means exhaustive (can it ever be in matters theoretical?), it does, as far as it goes, provide confirmation of the proposed explanation. To the extent that the observable facts of discourse are seen as confirming it, this principle can in turn figure as another piece of evidence in support of the theory of the tenses in the indicative mentioned at the beginning of this article, because it appeals to—and so presupposes—the potential significate postulated for the Transpast Tense. That is to say, one of the contextual meanings (actual significates) of the Transpast can be that of a conditioning factor thanks to the position in universe time it evokes. And so it would appear that in when-clauses the verb form is used not by default, to replace some deleted item, but to contribute its own meaning to the sentence being constructed, a conclusion which suggests that language is basically a highly systematic, meaning-motivated activity, and that English is by no means as "illogical" as it may seem at first sight.

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