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LINGUISTIQUE

AUXILIARIES AND VOICE IN ENGLISH

Of recent years, students of language have turned their attention more and more toward the spoken word with the intention of getting closer to the « living » language. While most fruitful in a diachronic perspective — the spoken language, being for contemporaries, cannot by definition be archaic — this attempt to describe « language in action » offers little prospect for success in the synchronic perspective for the simple reason that the spoken sentence like the written sentence, is the result of the language process, what is produced at the end of the language act. In order to describe « language in action » it is necessary to describe the act of language itself, the operation that precedes the resulting spoken or written sentence.

There are, however, certain interesting parallels between the diachronic and the synchronic approaches to language (1). Just as the historical linguist can account for elements of Modern English by showing the different stages of the historical process that produced them, so one can account for the elements of an utterance by describing the different stages of the act of language that produced them. And just as much of the historical process is not recorded in texts, so much of the language act is not recorded in consciousness. It took some of the finest scholars of the nineteenth century to invent a method which permits us to probe beyond the threshold provided by the earliest texts into unrecorded stages of language development. And it took a very remarkable French linguist, Gustave Guillaume, to invent a method which permits us to probe beyond the threshold of the conscious, into the hidden stages of unconscious mental processes. The method of psychomechanics, like that of comparative grammar, gives results, theories, whose ability to account for attested facts merits the closest scientific scrutiny.

The method of psychomechanics is based on the not very startling notion that some sort of mental process precedes any utterance. Further, a mental process, like any other natural process, requires time and so, Guillaume concludes, it must have a beginning, a middle and an end, an early part and a late part, before and after sections. In other words, the very fact of considering the language act as occupying a space of time provides a basis on which to divide or analyze this act. When, by examining the hints thrown out by discourse, Guillaume managed to situate a series of grammatical elements in their proper positions in the mental process — in the order of their mental genesis — he had not only reconstructed a grammatical system but in so doing had also produced a theory of this particular system.

The present article proposes to do just this : to reconstruct and describe the system of the grammatical auxiliaries in English, and to examine the relationship between this system and that of voice. The method of analysis and many of the observations are Guillaume's. Indeed, it is hoped that this article may prompt the reader, whether through interest or exasperation, to turn to some of Guillaume's own writings (2). Since Guillaume's work is little known in the English-speaking world, it is further hoped that the reader will be led to compare the theory here presented, not with already familiar notions of auxiliaries and voice in English, but with the facts of discourse.



There is nothing very new in the observation that the English verb is morphologically impoverished but rich in auxiliaries. The three basic forms of the verb — *work, working, worked* — are able, thanks to the subtle interplay of auxiliary verbs, to express nuances whose variety and finesse have left only English speakers unimpressed. Yet underlying this exuberance of connotative tints and shadings in usage there lies a surprisingly simple system in tongue (3).

Our discussion of the auxiliaries will be limited to the trio *do, be, have* to the exclusion of the so-called « modal » auxiliaries, and those used to express the future. This choice, far from being arbitrary, is motivated by a consideration of the very nature of the auxiliary. As Guillaume has pointed out (4), a verb must have a particular vocation to become an auxiliary. This vocation depends on the lexical content of the verb, or rather the degree to which this lexical content is felt to condition that of other verbs. Compare, for example, *to ski* and *to be*. Very few events are dependent for their realization on the idea of skiing, whereas it is quite commonplace for the idea of existence to condition in some way the coming-to-be of an action or state. Similarly, verbs expressing possession, becoming, capacity, obligation and so on all have a natural attraction toward the auxiliary status because, along with the verb *to be* in evoking conditions of the ordinary event, they are felt to be, of all verbs, the most virtual.

Called to the « auxiliaryhood » because of their semantic content, these verbs must respond to this call in a curious fashion : by getting rid, to a greater or less extent, of this very semantic matter. And the degree to which they become emptied of their lexical matter, dematerialized, determines their rank in the hierarchy of auxiliaries. Thus, in English, one can distinguish two levels according to the extent of their dematerialization : the « modal » auxiliaries (*can, may, must, etc.*) and the grammatical auxiliaries (*do, be, have*). That the former retain a small, though appreciable, portion of their material (lexical) content is attested by the paraphrases found in most grammars. That *do, be* and *have* are a very different kettle of fish is attested by the impossibility of paraphrasing their material content as auxiliaries : their dematerialization has been carried to the extreme for a word (5). What remains to prevent their dissolution as independent words, what serves as a material content, is a grammatical or formal element. Because of the nature of their remaining content these three — *do, be, have* — are called grammatical auxiliaries, while the « modals » can be more precisely characterized as lexico-grammatical or, more simply, lexical auxiliaries.

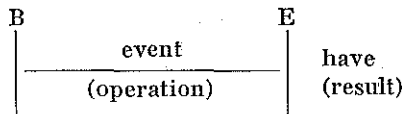
This description of the nature of auxiliaries accounts for the fact that such verbs cannot be used in discourse without a complementary full verb. It is precisely because, having been more or less emptied of their original content, they require a filler, or rather, a refill. It

is the auxiliary verb that provides the grammatical form (mood, person, tense, etc.) while the full verb provides the lexical matter poured into this form.

Our task is, then, to describe the relations between the three grammatical auxiliaries, relations which are determined by the position each auxiliary occupies in the mental system in tongue. This position is in turn the consequence of the content of the auxiliary (minimal though it may be after the process of dematerialization), of, in other words the impression attaching to the word. And the search for an explanation can be carried no further by the linguist since all agree that the link between a particular significate and a particular sign is arbitrary. In other words, it is the auxiliary's remaining trace of meaning (to use a non-technical term) which determines its position in the system of tongue. This position, in turn, accounts for the uses of the auxiliary in discourse.

HAVE.

Let us first consider a couple of examples of *have* as auxiliary. In a phrase like « I've got a newspaper », the idea of acquiring a newspaper is not evoked but rather its result, the fact of possessing a newspaper. Similarly, if you are to be introduced to someone you already know, you might say « We've already met ». Such a remark does not call up an image of your first meeting but rather the result of this event and so is the equivalent of « We already know one another ». Such examples suggest that the role of *have* is to evoke the result phase of an event, a phase which is conceivable only in the aftermath of the event. In other words, to see in thought the result of any operation, one must mentally occupy a position after the operation. We are thus led to propose that the impression attached to *have* as an auxiliary, its residual significate, is that of « afterness ». The following diagram illustrates this relationship:



B) beginning of the event.

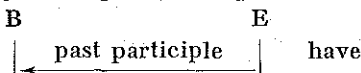
E) end of the event.

(N.B. — The solid horizontal line in this diagram, as elsewhere, indicates something actualized in time; the dotted line indicates something which has yet to take its place in time).

We are now in a position to account for the fact that *have* takes its lexical complement, its refill, in the form of a « past participle ». The past participle provides a mental picture of an event, seen as a whole, but from the standpoint of its end looking toward its beginning — a « backwards » view, if you like. In a diagram:



In the temporal aftermath of an event the mind necessarily has this retrospective view (something like the view of a ship seen from its wake) and so *have* takes the only verb form in English capable of providing such an image: the past participle.



It should be noted that the position indicated by *have* is a mental reality which need not correspond to external reality. Thus in «He will have read it by then» the speaker attributes to the subject a point in the future which, obviously, does not correspond with external reality at the moment. Similarly, we shall anticipate a later part of our argument by bringing up the so-called perfect progressive to illustrate the fact that in a discussion of grammatical system, we are primarily concerned with realities of thought. In an example like «He has been painting the ceiling» there is no indication as to whether the operation of painting is over or not. At first sight, this would seem to contradict the principle that *have* indicates «afterness». However, on closer scrutiny it becomes apparent that *has* governs *been*, not *painting*. And *been*, as we shall see, declares merely an existence, or better, a duration which is over, finished. The subject is therefore situated after a certain portion of the event (*painting*) has been accomplished and so is subjected to an interim result. Thus one would tend to use this verb form where the person in question is seen with paint spattered over his hair and face. If, on the other hand, one contemplates a gleaming ceiling, one would normally say «He has painted the ceiling» since the result of the event itself calls for a position in the aftermath of *painting*.

Perhaps one of the clearest examples of this combination, *have* + past participle, is the expression a «has-been». A «has-been» is a person who, in some particular respect, no longer exists. The expression declares the aftermath of, for example, a politician's period of success (6).

Another clear illustration of the role of *have* is contained in our very first example, «I've got a book», which is, to all intents and purposes, the equivalent of «I have a book». To account for this similarity between «I've got» and «I have» (*have* auxiliary + *got* = *have* full verb) one need merely compare the most concrete meanings of *to get* and *to have*. The former indicates acquiring, coming-into-possession-of; the latter, possession. And there is a necessary temporal relationship between the two notions: acquiring must precede possessing because possession is the result of acquiring. This notional chronology (7) can be illustrated as follows:

to get = acquiring (operation) Before		to have = possessing (result) After
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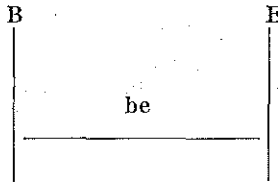
If, then, by the grammatical mechanism provided by *have* + *got* the mind represents the aftermath of acquiring, it amounts to declaring the state of possessing as expressed by the full verb *have* so that *have got* is the equivalent of *have*. But it must be remembered that this equivalence exists only on the level of discourse; the mechanisms on the level of tongue which give rise to such uses are very different.

In summary, *have*, as the expression in discourse of the verb's formal categories (*mood*, *tense*, etc.) declares the position of the subject with respect both to time and to the event itself. This means that *have*, like the other auxiliaries, indicates the temporal link between the subject and the event, the particularity of *have* being that it situates the subject in the event's aftermath because its residual content is an impression of «afterness».

BE.

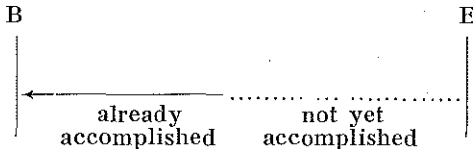
Once again we shall begin our discussion by a brief glance at *be* in discourse before turning our regard toward its position in tongue. In a sentence like « He is getting the paper » we are no longer dealing with a person in possession of a paper but with someone in the process of acquiring it. In « I am reading the book » the speaker declares that he is somewhere between the first page and the last. In both examples, the subject is seen at some point between the beginning and the end of the action. This is so whenever *be* is used with the present participle (8) : the subject of the progressive is always presented as already involved in the actualization of an action which is not yet completed.

This characteristic of the use of the progressive form in discourse suggests the impression associated with the auxiliary in tongue : *be* is associated in thought with the interior, the inside of an event. This impression of « withinness », of interiority (to use a more learned term), can be represented as follows :

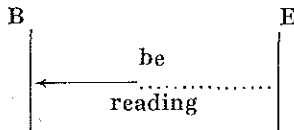


- B) the beginning of the event
E) the end of the event

It should be noted that *be* as auxiliary of the progressive is able to indicate any position, early or late, within the event, provided that the event's actualization is felt to be already under way but not yet over. This means that only part of the event is seen as accomplished ; the rest, yet to be accomplished, is left in abeyance. In other words there is, before the mind, an image of a divided event, only a portion of which has already taken place at the moment indicated by *be*. In a diagram :



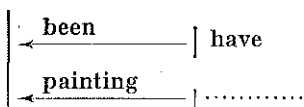
Since this is precisely the image of an event expressed by the present participle, it is not surprising that this form of the verb should be called on to provide the lexical filling of the progressive. The former diagram can now be made more precise :



Once again it must be recalled that the position declared by *be* is a mental reality, a position in conceivability, which need not have its counterpart in external reality. Thus, one can as easily imagine an event in the future with an accomplished portion («They will be eating dinner when we arrive») as one can an event in the past with a portion left unaccomplished («They were eating dinner when we arrived»). In other words, language deals directly with our mental universe and only indirectly with the extra-mental universe. Otherwise, one could never make a false statement!

This principle is clearly illustrated by sentences like the following: «I am leaving tomorrow.» At first glance it would appear that *am* does not situate the subject within the event, but rather before it. However, on more careful consideration one notices that this usage always shows the subject, in one way or another, already involved in the event's actualization. Thus, the above sentence is appropriate at the moment one is buying the train tickets, or making any other preparations for the trip and, at the limit, may indicate merely an intention to leave (which itself is based on a previous decision of some sort). The crucial question here is: when does the *leaving* begin? Can the first moment of the event include the preparations that normally precede the change of physical place? In English we can consider these preparations as the beginning (9) so that in this usage there is a very small, but real portion of the event already accomplished. In other words, the auxiliary *be* does put the subject inside, though perhaps just barely inside, the event (10).

We have already remarked that in the perfect progressive *have* situates the subject after the space of time marked out by *been*. Within this space of time is situated that portion of the event which is already accomplished; beyond it lies the space for any possible further accomplishment. In a figure:

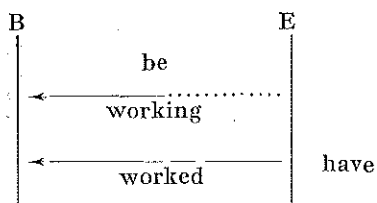


It is worth remarking the subtlety of nuance arising from the two possibilities: to situate the subject within the event (the perfect progressive) or to situate it after the event (the perfect). Consider, the example «I have been sleeping for hours!» where, obviously, the subject/speaker is not sleeping. The suggestion that he might have gone on sleeping is sufficient to evoke a possibility of continuation and so the subject is situated just within the event. On the other hand, in the same situation insofar as external circumstances are concerned, one might say: «I have slept around the clock.» (11). Here, the suggestion is no longer one of possible continuation, but rather that of having completed a certain stretch (12 hours) of sleeping and so the subject/speaker sees himself in its aftermath.

At least one grammarian has remarked that sentences like «She has played bridge. She has cried» are impossible. It would be more accurate to say that they are uncommon, that the perfect progressive is the usual form here because these actions when not modified do not normally evoke a result in our minds. When a person has finished playing bridge or crying there is no result comparable with that of possession (after getting a paper) or knowing (after meeting a person). So the attention is normally drawn to the interior of the action and the perfect progressive is used. But if we imagine situations where there is a significant result of playing bridge or

crying, then the perfect is quite appropriate. For example, novice card players seeking advice might remark : « Who shall we ask ? », « She has played cards ». This answer would imply that, as a result she possesses the necessary knowledge to offer instruction. Again it is not impossible to imagine, during try-outs for a company of actors, someone remarking : « She has cried » (as a result she is ready for the next test), « Have her laugh ». Such examples of usage, and they are typical of a great many others, will help to show that the most delicate and varied nuances of discourse can be traced back to a rigorous and *simple* system in tongue.

It will perhaps be useful at this point to summarize our remarks concerning *be* and *have* by combining the figures which show how the underlying impressions of « within-ness » and « afterness » are given a place in the system.

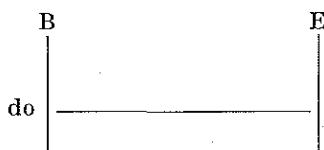


DO.

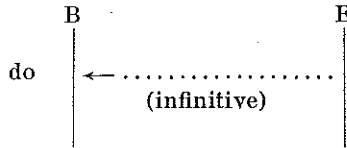
The most economical approach to *do* can be made by using minimal pairs. In the sentence « Why aren't you a doctor ? » *are* refers to the moment of speaking. If, however, *do* is used to form the interrogative, « Why don't you be a doctor ? », *be* is thrown beyond the moment of speaking and refers to the future. In other words, the state of being a doctor seems, by means of *do*, to be shifted into a period of time beyond that occupied by the subject. Another minimal pair can be drawn from British usage :

Why haven't you a cup of tea ?
 Why don't you have a cup of tea ?

In the first, a present lack (of a cup of tea) is under discussion ; the second sentence is concerned with a possible acceptance, an acceptance which is therefore beyond the present, where the subject is situated. The difference between such minimal pairs (12) suggests that *do* evokes what is prior to the event. We are thus led to propose that the impression attached to *do* in tongue is one of « beforeness », of priority, and that the role of *do* in the system of the grammatical auxiliaries is to attribute to the subject that which is before the event. In a figure :



Now if the subject is assigned a position in time preceding that occupied by the event, it cannot be seen engaged in the accomplishment of the event. In other words, the event is represented apt to be actualized though no portion of it has yet been accomplished. This image of the event, required by *do*'s position, is precisely the one provided by the infinitive. The above figure can then be modified to suggest an event whose accomplishment is seen totally in prospect because only that which precedes the event is considered to be real :



As in the cases of *have* and *be*, *do* marks a mental position, a moment in the system of representation called the grammatical auxiliaries. In the two examples above, this mental reality reflects external reality and so provides a particularly clear illustration of the underlying mechanism. Thus, the first, « Why don't you be a doctor ? », evokes the notion of becoming a doctor ; the second, « Why don't you have a cup of tea ? », calls up, in British usage, the idea of accepting or taking a cup of tea. (This semantic shift becomes apparent when one translates the two questions into French). The relationship between becoming and being, and that between accepting or taking and having are identical in at least one respect : one must become before being ; one must accept, take or (to use a more general term) acquire in some way before having. In other words, becoming and acquiring are the conditions of which being and having are the consequences. The notional chronology inevitably associated with the pair condition-consequence obliges the mind to see the condition before the consequence (13). Because of this inevitable temporal order, *do*, in situating the subject before the event (here seen as the consequence), necessarily situates it in the field of the condition.

In the following examples we can also see a parallel between the position in the mental system and that in external reality : « I don't understand Swedish », « He doesn't drive ». The actualization of the event (*understand*, *drive*), if it is ever to take place, can occur only after the position in time assigned to the subject. In other words, the subject, being situated before, is refused (by means of the negative) entry into the event because the very conditions of the event are denied. Thus the above sentences are almost equivalent to « I can't understand Swedish » and « He can't drive » where *can* specifies one of the conditions : capacity. In this sense it is instructive to compare « He doesn't drive » with « He never drives ». While the first suggests non-existence of the conditions necessary to actualize the driving, the second merely says that the event never takes its place in time (though the subject may very well be able to drive).

Whether it has an external correlate or not, the negative formed by means of *do* operates by denying what necessarily leads up to the event : its conditions. The subject is declared not to be in a position to proceed to the actualization of the event. On the other hand, the negative of *be* (and the present participle) declares that the subject is not involved in the actualization of the event. And *have* (with a past participle), when negative, declares the subject not to be in possession of the results of the event.

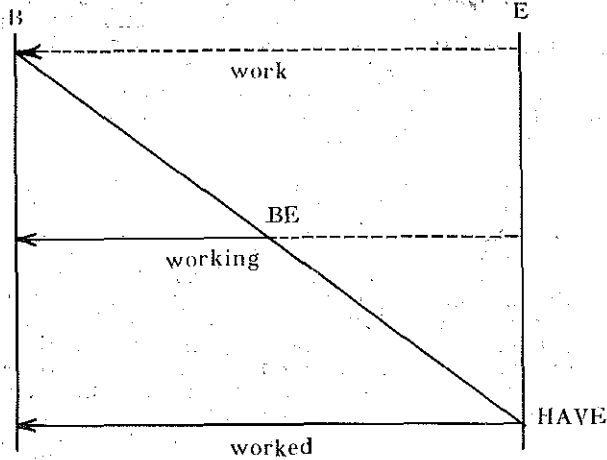
In questions *do* again indicates a prior mental position which, in certain contexts, clearly evokes factors conditioning the event's existence. Thus questions like: «Do you understand Swedish?» and «Do you drive?» are concerned neither with the result, nor with the actualization of the event, but with its conditions. *Do* permits the questioning not merely of the event's actual existence, but of the possibility of its existence.

In the affirmative, *do* has the same rôle to play: it provides the subject with a mental position before the event, a position which often has no counterpart in external reality. Thus *do* in «I do understand Swedish» and «He does drive» situates the subject prior to the event, in the field of the conditions of understanding and driving. This time the conditions are neither denied nor questioned but affirmed so that the subject is not only provided a place in time, but also assigned what is associated with this position: all the conditions leading to the actualization of the event. To declare the existence of all the conditions affirms, not the existence of the consequence, but the necessity of its existence: it cannot not exist. The existence of the event, in the position of a consequence, is felt to be in some way necessary. From the point of view of the subject, which is endowed by *do* with all the elements required to bring the event into being, the event is something that cannot be avoided. The subject is committed in advance to undertaking or continuing the event.

When it is a question not of an event that is to begin, but of one that is already in existence, as in «He does work here», it would appear at first sight that the subject cannot be situated both in the present and prior to the event: the subject and the event both exist at the moment of speaking. Such is the situation insofar as extramental reality is concerned. But the mind, under the dictates of a necessary notional chronology (14), can only represent the condition (as embodied by the subject) before the consequence (the event). In other words, the priority declared by *do* is a purely mental reality in sentences like the above, with no external counterpart. The effect of this mechanism is to declare not merely the continued existence of *work* in the non-past, but the necessity of its continuance. It is this further duration of the event which is imposed on the subject.

In the affirmative, then, the *do*-construction provides an image of the event, not as something that exists or even that may exist, but as something that cannot help but exist. Declaring an event in this manner to be necessary gives it a certain prominence and this is precisely the effect of the construction in discourse: the event is felt to be stressed, to be emphasized when presented by *do*.

We have now described the system of the grammatical auxiliaries *do*, *be*, *have* (15). *Do*, by situating the subject before the event assigns the conditions of the event to the subject and so predestines the subject to the actualization of the event; *be*, by situating the subject within the event expressed by the present participle, assigns part of the event itself to the subject as accomplished and so evokes the possibility of further accomplishment which is in some way, be it only in length, conditioned by what went before; *have*, by situating the subject after the event expressed by the past participle, attributes the accomplished event to the subject and so involves it in the event's result. These relationships can best be represented by means of a figure:



Perhaps the most striking characteristic of this system is its simplicity. It is simple because, like all systems in tongue, it embodies only the most general cases so that all the particular possibilities of discourse are provided for in advance. Thus, with the premise that the field of the verb involves an opposition, it is difficult to imagine one other than :

- a) before the event vs. the event ;
- b) first part of the event vs. rest of the event ;
- c) the event vs. after the event.

Any representation involving an intra-verbal dichotomy must fall into one of these general cases because so long as one is in time, one must be before, during or after any event. This, then, is the reason for the simplicity and elegance of the system : it is founded on one of the elements of our common experience which is implicit in any apprehending of the external world (16).

This opposition implies that in each case the subject is assigned a position ; it is, as it were, caught in one of its possible attitudes toward the event. Furthermore, in each of these positions the subject is confronted with a divided verb, one whose field involves an opposition between a before-portion and an after-portion. For the convenience of our discussion, these portions can be represented by x and y respectively :

do work : field of the condition + event to be accomplished
 x y

be working : portion already accomplished + portion not yet accomplished
 x y

have worked : accomplished event + field of the result.
 x y

In each case, the first part (x), represented by a solid line in the preceding figure, is assigned to the subject, is saddled on it, by the very fact of its position. It is only the second part (y), represented by a dotted line in the figure, which opens to the subject a space in which it can exercise its prerogatives as subject. In other words

the subject is seen as not having complete liberty with regard to the whole of the verb's field: the former part (x) escapes its control because it is declared to be already existing at the point in time occupied by the subject; the latter part (y) remains as the subject's field of action, but even here (in y) the subject can act only from the premises laid down in the preceding portion (x).

Such considerations lead us to the nub of the question and suggest that fundamentally the system involves a discussion of the possible relationships between subject and verb where the field of the verb itself involves two parts, one before (x) and one after (y). In each case, the prior portion (x) is felt to be a conditioner of the subject while the latter portion (y) is seen as open to the subject's conditioning. The result, in discourse, of this discussion is to attribute to the subject a certain degree of freedom, but never complete freedom, with regard to the event.

Such, then, is the system of *do*, *be*, *have*. It involves the subject in a discussion of what happens when the field of the verb is represented as divided, as made up of a before — and an after — portion, x and y . Since the sum of these two makes up the whole space allotted to the verb we can, considering the verb's field as 1, express the relation in this formula: $x + y = 1$. Since the before-portion (x), whether it be a purely notional priority (*do*), the first part of the event (*be*), or the event itself (*have*), is given as a sort of premise, as a *terminus a quo* of the subject's activity, the succeeding portion of the verb's field (y) can be realized only in accordance with the premised conditions. In other words, the before-portion (x) conditions the after-portion (y), which is the only space left to the subject to exercise its powers as subject.

It may have occurred to the reader that this does not exhaust all the possibilities of the subject-verb relationship, that dividing the field of the verb is not a necessary condition of this relationship. Indeed, the *do* — *be* — *have* system is in reality just one particular case in a larger system, the case of a divided verb field, of x vs. y ; There remains the possibility of representing the field of the verb as undivided through the elimination of either x or y . If x is eliminated, if, that is, the verb is seen with no before-portion, there remains only y : the verb's field will be wholly made up of an after-element. If, on the other hand, y is eliminated so that there is no after-element, only x remains to occupy the verb's field, which is then felt to be made up of a before-element only.

In terms of the above formula, $x + y = 1$, where the field of the verb is considered always to form a whole, there are three, and only three, possibilities:

- [1] $x = 0$; $y = 1$.
- [2] $x = 1$; $y = 0$.
- [3] $x > 0$, < 1 ; $y > 0$, < 1 .

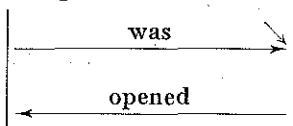
We have already identified the third possibility: when x and y both have positive values, when there are both before — and after — portions, the *do* — *be* — *have* system comes into play. It remains to identify possibilities [1] and [2] in the system of the verb.

Possibility [2], where $y = 0$, involves the elimination of the after-portion of the verb's field, so that the whole of the event is felt to be a «before» with regard to the subject. In other words there will be no field of action open to the subject, this field having already been fully exploited in the case we are considering ($x = 1$). This is not quite the situation with *have* + past participle; though the past participle situates the whole event prior to the subject, evokes it in

retrospect, *have* opens up the aftermath to the subject (i.e., $x < 1$, $y > 0$). What is required is a verb form that presents the event in retrospect (as does the past participle) yet keeps the subject from going beyond the event into its aftermath, that keeps the subject within the event. Since *be* as auxiliary has precisely this role — situating the subject within the event — it is not surprising that the combination of *be* and past participle should provide the verb form we are looking for, as in :

The door *was opened* by an unseen hand.

When the auxiliary *be* is combined with the past participle the verb's field is no longer seen as divided. The past participle presents it as a material whole, in its completed material development : nothing more can be added to the event itself (17). The job of the auxiliary, as always, is to provide the link between event and subject, to situate the one with respect to the other. And since the auxiliary is *be*, the subject cannot be seen outside the event. Only from one point on the inside can the whole event be viewed in retrospect : from the last instant before going outside into the aftermath. The following diagram portrays this image of the event :



The reader will have noticed that the auxiliary here is no longer merely a position marker, but carries the mind through the event, exhausting all its possibilities of development. *Be* as an auxiliary is always associated with an impression of « within-ness » and so evokes the interior of the event whether it is used with a present participle (*be'*) or a past participle (*be''*). However, while *be'* evokes the state of an event at some point between its beginning and its end, *be''* summarizes the development of the event, leaving no further possibility of change within the event. Because *be'* is associated with the notion of being it can divide the event into x and y ; *be''* being more closely associated with the notion of becoming, does not divide the event (18).

The important point to notice here is that *be* + past participle presents an event with no space left for further development. The whole event is assigned to the subject but the subject is provided no opening for any initiative on its own. Indeed, the only way to provide some space for the subject's activity is by some grammatical means : either by holding up *be''* before it exhausts all room for development within the event, as in « The door was being opened » ; or by getting beyond the event itself and into the aftermath, as in « The door had been opened. ». In other words, with *be* + past participle, there is no after-portion, the whole of the verb's space being seen as the before-portion :

$$x + y = 1$$

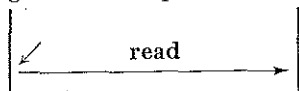
where $x = 1$ and $y = 0$.

It remains to discuss the contrary case, where $x = 0$ and consequently $y = 1$. This case involves the minimizing of the before-portion so that the field of the verb is again seen to be undivided. The very fact of refusing any division in the mental space allotted to the verb means that the event must be seen from within : the mere evoking of the outside of the event (as with *do* and *have*) creates a

division, inside vs. outside. Thus, the subject must be seen within the event in this case (where $x = 0$) as it was in the preceding case (where $y = 0$). There is, however, a vast difference between the case of *be* + past participle and the present one. Though the subject is seen within the event to avoid division in both cases, when the after-portion is minimized ($y = 0$) the whole of the verb space is seen to be affected to the before-portion; but where, as in the present case, the before-portion is minimized ($x = 0$), the whole of the verb space must be affected to the after-portion. In other words, if our analysis is correct, this value of the formula requires a verb form in English whose subject is seen inside the event with, open in front of it, the space required to lodge the whole event, but with no before-portion which can condition the subject's power. An example of such a verb is the following :

« He read the book. »

A careful examination of the varied uses of the simple form in English reveals that it always presents its event as a whole, as an entity to which no further development or change can be added. Thus, in examples like the one just given, the subject is seen actualizing the action from beginning to end. There is no division into « pre-event » + event (*do*) or accomplished part + non-accomplished part (*be'*) or event + « post-event » (*have*). Nor is the undivided event seen in retrospect as with *be''*. Here, the subject is seen as the initiator of the event, inscribing it in the space of time lying open in front of it. This image can be represented in a figure as follows :

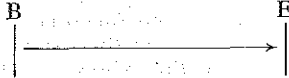


The significant characteristic of this representation of the verb is, let us repeat it, that there is no before-portion : $x = 0$. This means that the after-portion, which occupies the whole of the verb's field ($y = 1$), is felt to be in no way conditioned by anything that came before. In other words, the subject is completely free to exercise its prerogatives throughout the space allotted to the verb. No restrictions or limitations are imposed by any preceding element. This autonomy of the subject accounts for two interesting facts which characterize this verb form.

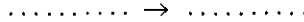
The first is the fact that it is a *simple* form, that it has no auxiliary. The role of the auxiliary being to express the position with regard to the event assigned to the subject, it would appear that the subject of a simple verb is not assigned its position. This does not mean that it has no position, no relationship, with regard to the verb : it could not be subject in that case. It means rather that it is the verb which is assigned its place with regard to the subject ; the subject enjoys full autonomy and is therefore in a position to impose its conditions on the verb. Thus one of the major dichotomies of the English verb, on the level of discourse, would appear to have its roots in the manner of determining the event's place : where the subject is seen to be in full control of situating the event, the simple form is used ; where the subject is not considered to be wholly free to determine the event's locus, where, in other words, its own locus is to some extent determined, then a compound verb is used, the use of the auxiliary arising from this restriction of the subject's autonomy.

The second fact of interest in our discussion is one of usage. The simple form of the verb can express two types of event. The first we

have already seen : events whose development is spread over a number of instants, whose material content changes from moment to moment (19). Such events, called actions, are illustrated in our last example above, or again in a sentence like « He smoked a whole package of cigarettes ». Because of their «developmental» character, actions can be seen in their entirety only if the whole of their existence in time is represented. In other words, actions presented by the simple form are seen from their first to their last instant :



The second type of event is one in which no development is seen from one instant to the next, in which the material content is the same no matter what moment of the event is envisaged. Such an event, called a *state*, is exemplified in the following sentences : « He smokes a pipe », «The Thames flows through London», «He is asleep». Because of their «non-developmental», static character, states can be seen as a material whole *at any instant of their existence*. Each instant of a state is materially equivalent to any other of its instants so that to have an image of an event as a material whole the mind need give itself a representation of only a part of the event's duration in time. In the above examples, we see the existence of the events only at the moment of speaking. The preceding existence of the state (if any) and its succeeding existence (if any) are simply not represented. The following diagram represents such events :



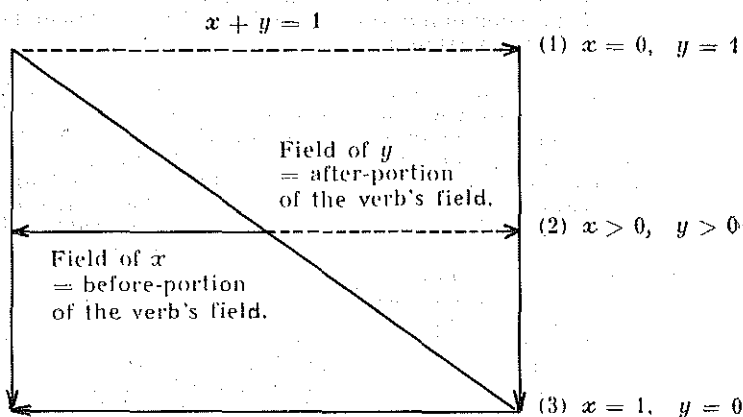
The reason for this rather lengthy digression on the second use of the simple form is the following. The fact that a state with a certain previous existence may be expressed by the simple form would seem to contradict our analysis of this form since it would appear that there is both a before — and an after-portion. Such an observation, however, is concerned with external reality and not with what language forms are called upon to express : mental reality. The mental reality behind this use of the simple form appears to be the image of an event which, no matter how brief a stretch of its existence is represented, always is materially complete ; an event, in other words, which does not depend on any preceding portion for a part of its existence. It is almost as if any section, and at the limit, any instant of a state were self-sufficient, its existence not being conditioned by anything that has gone before. Thus, whether or not the state already existed in external reality is of no importance since the portion of existence represented by the verb is felt to be totally independent, as if forming a whole event in itself.

This manner of envisioning the simple form and its use in discourse to express complete actions and states leads us to the crux of the vexed problem concerning the difference between the simple and the progressive forms (20). The progressive, as we have seen, indicates a divided, a partly actualized, an incomplete event. It cannot, therefore, express either a complete action or a state, the latter being, by definition, necessarily complete (one cannot imagine an incomplete state). What then is the criterion before the mind which determines whether the progressive or the simple form will be used with regard to any external situation ? For example :

I am liking it here.
I like it here.

The mental criterion is whether or not there is an impression of possible further development within the event. If there is, then the portion of the event (here an action) that has preceded becomes significant ($x > 0$) since it can condition the coming portion: the progressive form will be used. If the event's development is seen as complete, as perfect, to the exclusion of any possibility of further development, the simple form is used. Actions so expressed are seen from beginning to end; only a portion of a state may be represented since, no development being possible, any previous existence can be disregarded ($x = 0$) as having no influence on the succeeding portion ($y = 1$).

This discussion of the possibilities implied in the formula $x + y = 1$ can best be summarized by means of a diagram in which all possible values of x and y are provided for. It should be recalled that the *do — be — have* system is treated as a particular case here, both x and y having positive values, as opposed to the simple form (where $x = 0$) and to *be + past participle* ($y = 0$).



On the vertical axis this diagram represents an operation of the mind and on the horizontal axis, the three significant results of this operation which depend on how early or late the operation is held up. The longer the operation is permitted to continue, the further the mind penetrates into the field of the verb. Thus, if the operation is stopped the moment it begins (interception [1]) the mind has not yet penetrated into the field of the verb so that the whole event lies in front of it: $x = 0, y = 1$. This image is expressed by the simple form. If the mental operation is permitted to continue beyond its starting point but is suspended before its last instant (interception [2]) the mind has time to get only part way through the verb's field so that part of the field is felt to lie behind, part in front: $x > 0, y > 0$. This image of a divided field is expressed by *do + infinitive*, *be + present participle*, *have + past participle*. If, finally, the mental operation is stopped only at its last instant, the mind has time to get through the whole field of the verb which then appears to be entirely behind: $x = 1, y = 0$. This image of an undivided field is expressed by *be + past participle*.

The subject-verb relationship varies according to the particular image expressed. Thus interception [3] leaves the subject with no room before it for any action since the whole field is seen to exist already. One has the impression that the event is imposed on the subject and so this form of the verb is called the passive. On the other hand, interception [1] gives quite an opposite situation: with nothing behind it, the subject has the whole field of the verb in front of it in which to inscribe the event. The subject seems to be the initiator, in control of the realization of the event. The simple form can therefore be considered the expression of the active voice. Interception [2], arising at some point between interceptions [1] and [3], does not provide such clear-cut distinctions. Here, part of the field is imposed on the subject and yet the subject has a certain space remaining in which to exercise its prerogatives. Conditioned by the verb to some extent yet conditioning the verb to some extent, the subject appears to be related to the verb in a fashion which differs from the relationships between either a passive or an active verb and the subject. Indeed the subject-verb relationship in interception [2] seems to partake of both the active and the passive relationships. We are led to propose the existence of a middle voice in English expressed by means of the compounds *do* + infinitive, *be* + present participle and *have* + past participle.

The fact that the middle voice in English has hitherto not been recognized as such arises from the failure to consider tongue for what it is: a system of mental relationships which, when discussed by the mind, involve a going and coming, a movement, an operation of thought from one term of the relationship to the other. If language is something existing in time, then any language activity, such as the bringing into relationship of active and passive, will require time because it involves a movement from the one to the other. Granted the essentially operational nature of language, we can see that in order to get from active to passive positions the mind must pass through all the intermediate positions which correspond to a representation which is neither wholly active nor wholly passive. In a language like English then where, as most grammarians would agree (21), there is both an active and a passive voice, the problem is not to determine whether this mental operation through intermediate points exists, but how the intermediate interceptions are expressed. In English, the middle voice is highly developed and occupies a very important place in the system of the verb. In French, the middle is less highly developed though certainly not wanting in delicacy of nuance (22).

Our discussion of grammatical auxiliaries has led to an analysis of the whole system of voice, a system which we have described in terms of position, of before and after; *x* and *y*. It remains to account for the fact that when the verb is seen to arise wholly in *y*, the after-position, the subject is felt to have maximum liberty *vis-à-vis* the event; and when the verb arises wholly in *x*, the before-position, the subject is felt to have minimum liberty with regard to the event. This association of a before-position of the subject with an impression of dominance and an after-position with one of subservience is by no means arbitrary. It resides ultimately on a very simple relationship in notional chronology: that between the conditioner and the conditionee (23). The conditioner, be it a cause, an operation or a condition must be attributed some sort of temporal precedence with regard to the effect, the result or the consequence. From this notional chronology, arises the impressions of something before as the condi-

tioner (and therefore dominating) and of something after as the conditionee (and therefore subservient). In a diagram:

	Conditioner		Conditionee
	Before		After
[1] Active Voice	Subject		Verb
[2] Middle Voice	Verb	Subject	Verb
[3] Passive Voice	Verb		Subject

We started out by exploring the system of the middle voice in English and this led us to the more general system of voice in which the middle voice formed only one particular case. Where does the system of voice itself fit? As a discussion of the possible relationships between subject and verb, it would appear to be one of the particular cases of the system of external incidence (24): that case where an element involving a representation of time (the verb) is incident to an element involving a representation of space (the noun) (25). The fact that every verb, as verb, is subjected to the regime of external incidence means that voice, which is nothing more than a representation of different ways in which a verb can be incident to a noun will be found throughout the system of the verb: in every mood, person and tense. This is why voice, like aspect, is not the conjugation but what is conjugated (26).

Walter Hirtle,

Université Laval, Québec.

(1) For a full discussion of the matter see R. Valin, *La méthode comparative en linguistique historique et en psychomécanique du langage*, Presses de l'Université Laval, 1964.

(2) For example, *Langage et Science du Langage*, Nizet and Presses de l'Université Laval, 1964.

(3) For Gustave Guillaume's distinction, *langue-discours*, we employ *tongue-discourse*. The latter term calls for no comment. The former can be justified on three counts: (1) the term *langue* has taken on a bewildering variety of meanings in English and so may lead to confusion; (2) the English word is ready to accept the new meaning (as was the French word before Saussure); (3) *Frenglish* has not been in style for some centuries.

(4) *Op. cit.*, pp. 73 ff.

(5) Any further dematerialization would destroy these auxiliaries as words. For the result of this transcendent dematerialization, see Guillaume, *op. cit.*, pp. 80 f.

(6) It is not without significance that a « being » is someone (or something) whose existence is seen as continuing. As we shall see, this is precisely the function of the -ing form.

(7) The term is Guillaume's and is used to express a fixed temporal sequence which inevitably accompanies notions like cause and effect, condition and consequence, virtual and actual, operation and result.

(8) We shall consider the case of *be* with the past participle later.

(9) Consider the situation of someone flinging articles of clothing into a suitcase. One would ask: « What are you doing? » The answer might well be: « I'm leaving! » The impression is that packing here makes up a very real part of leaving for the speaker.

(10) It is worth nothing that this usage (with reference to the future) is most common with verbs indicating events which normally have a period of preparation.

(11) The perfect progressive in this sentence would give a rather ludicrous suggestion.

(12) Such differences would seem to invalidate the opinion that *do* auxiliary is used merely to conform with the general pattern of English sentences and in itself adds nothing to the sentence.

(13) See above, p. 8, n. 2.

(14) See above, p. 8, n. 2.

(15) In the historical perspective, it is not difficult to imagine that *have*, as the verb of possession (the result of acquiring), underwent a process of dematerialization which left merely the impression of « afterness ». Similarly, *be*, as the verb of existence, already implied « between-the-beginning-and-the-end » so that through dematerialization all notions but that of « position within » were lost. The origin of *do* auxiliary has caused considerable argument, the most widely accepted origin being a causative use of *do* in Late Old English. The main objection to the causative as origin — that the semantic change from causative to auxiliary cannot be explained — would appear to be answered by the theory here proposed: since the very notion of cause implies a prior position, the loss of all particular ideas of cause through dematerialization would leave *do* as an indicator of « beforeness ». This theory would also account for the otherwise curious rivalry in Middle English between *did* and *gan* in periphrastic constructions.

(16) The Welsh scholar, Robert Jones, has pointed out some interesting parallels in Welsh. To express the equivalent of « he has run », the preposition *wedi*, meaning « after », is used with the infinitive *rhedeg*: *Y mae ef wedi rhedeg*. Literally: he is after run (ning). To express the equivalent of « he is running », the preposition *yn*, meaning « in » is used with the infinitive: *Y mae ef yn rhedeg*. Literally: he is in run (ning). Finally, Welsh uses the verb « to do », *gwnewch*, as an auxiliary verb to express the future: *A wnewch chwi redeg?* (literally, « Do you run? ») is rendered in English « Will you run? »

(17) Note that in examples like « It is opened every day at 9 » the *development* of the action is seen as complete. It is this material whole which is repeated but no matter how often it may be multiplied, no matter how long it lasts in time as a recurrent event, no change or further development can be added. Any such change would, by definition, destroy the image of a repeated event and substitute that of a new one.

(18) It is for this reason that *be*' alone of all the auxiliaries, can take the progressive form, a form which catches a becoming in full-flight: « It was being opened » (*was = be'*; *being = be''*). One is reminded of German where the auxiliary corresponding to *be*' is *werden*, not *sein*.

(19) It is only such events that can be expressed by the progressive form. See below, p. 29.

(20) For a more detailed discussion of the problem see the article by A. Joly, « Esquisse d'une théorie de la forme progressive », in *Les Langues Modernes*, mai-juin 1964.

(21) Some grammarians maintain that English has a passive voice but no active, presumably on the grounds that one can say « The door was opened slowly. » and « The door opened slowly. » The latter sentence may, of course, refer to a situation in external reality in which the door is the patient, but this is no safe guide to the mental reality which is the content of the form. Here, as always with the subject of a simple verb, the subject is seen as the actualizer of the event. Such confusion of two orders of reality is exemplified by the confusion of sex and grammatical gender.

(22) See Guillaume, *op. cit.*, pp. 126-142.

(23) These terms are used as the most general characterization of such pairs as condition-consequence, cause-effect, etc.

(24) See Guillaume, *op. cit.*, pp. 250 f., for a discussion of the regimes of incidence.

(25) The other case of incidence to a noun is that of the adjective which does not involve a representation of time. One wonders if the opposition between epithet and attribute, like that between active, middle and passive, might not be a discussion of this same general relationship of external incidence.

(26) *Ibid.*, p. 252.