

97 -  
Reprinted from

# Lingua

---

Lingua 100 (1997) 111-149

DO auxiliary – A meaningful support and operator<sup>☆</sup>

Walter Hirtle

*Département de langues et linguistique, Fonds Gustave Guillaume, Bureau 3210,  
Pav. Charles-De Koninck, Université Laval, Québec G1K 704, Canada*



ELSEVIER

## DO auxiliary – A meaningful support and operator<sup>☆</sup>

Walter Hirtle

*Département de langues et linguistique, Fonds Gustave Guillaume, Bureau 3210,  
Pav. Charles-Dé Koninck, Université Laval, Québec G1K 704, Canada*

L'existence d'un mot totalement dépourvu  
de compréhension est une impossibilité  
linguistique.<sup>1</sup>

(Guillaume, 1991: 149)

### Abstract

Attempts to describe 'what auxiliaries are and why they behave the way they do' on the basis of syntactic criteria have not been successful. This study, which approaches the problem from the point of view of meaning, postulating that any word is used for the meaning it expresses, focuses on the nature of DO, the auxiliary usually considered a 'dummy' word. It proposes for DO a residual lexical meaning, the representation of a stretch of duration, as well as the grammatical meaning of any verb in the indicative. On the basis of this meaning combined with that of the infinitive, an explanation of usage in interrogative, negative and positive sentences is proposed. This analysis provides a starting point for exploring the system of auxiliaries in English and the nature of compound verbs.

### 1. Introduction

So much has been written on auxiliaries in the last few years that one may well query any attempt to add to the literature. Much of the discussion is concerned with the status of auxiliaries, their dependency relations and their universality. Because of the diversity of approaches adopted, "a remarkable number of entities figuring in linguistic works have been called auxiliaries, such as inflections, conjunctions, certain types of numerals, etc." (Heine, 1993: 7–8), and this includes the *to* introducing infinitives. Even in the sense of a verbal auxiliary, the traditional, restricted sense

<sup>☆</sup> The research for this paper was supported by a grant from the Social Sciences and Humanities Research Council of Canada. I am grateful to those students and colleagues who took the trouble to comment on former versions of the text, particularly Peter Enns, Patrick Duffley and Roch Valin.

<sup>1</sup> The existence of a word totally deprived of comprehension is a linguistic impossibility.

adopted here, there is so little consensus as to the notion of auxiliary that scholars disagree as to whether or not auxiliaries are verbs. It is therefore not surprising that, notwithstanding all this scholarly activity from greatly varied points of view, “the question as to how to explain their peculiar nature has”, according to Heine, “virtually been ignored by students of linguistic theory”. As a consequence, “the question as to what auxiliaries actually are and why they behave the way they do is still as far removed from being answered satisfactorily as it was 30 years ago” (1993: 26).

This result, which is, to say the least, disappointing, would seem to indicate that another manner of approaching auxiliaries is required, one primarily concerned with discerning their nature and explaining their behavior in the light of this nature. We must somehow get beyond the criteria that permit us to recognize a word as an auxiliary and discern its makeup, its inner character or constitution which determines the way it is used and the observable criteria themselves. To have any chance of finding out what an auxiliary is, however, one must first have some idea of what a word is, since an auxiliary partakes of the nature of a word. The approach adopted here, first applied to auxiliaries by Guillaume nearly sixty years ago, provides just this. His theory postulates that a word is a unit made up of a physical sign and a mental significate, this significate or meaning consisting of both a lexical matter proper to that particular word and a grammatical form, whence his categorical statement cited above to the effect that a meaningless word is a linguistic impossibility.<sup>2</sup> Since words are the means provided by language for representing the momentary experience we have in mind and wish to express when we undertake an act of language, without words there can be no act of language, nothing said about our experience (cf. Hirtle, 1993).<sup>3</sup> It follows that the use of a particular word in any given discourse finds its first motivation in some aspect of the momentary experience, the intended message, which prompts a person to undertake an act of language, and so any use must be justified in terms of the representation provided by its meaning.

This last requirement is particularly demanding because it implies that, as with any other word, the uses of an auxiliary are to be justified ultimately in terms of some impression arising in the speaker's intended message. Furthermore, since no two auxiliaries have identical uses it must be assumed that they all differ somewhat in their meaning and so each auxiliary must be examined on its own, in terms of its own particular meaning. For this reason, the present article is concerned with only one auxiliary, it being assumed that until the makeup of at least one auxiliary has been discerned, it would be premature to comment on the nature of the auxiliary as a type of word. And DO is perhaps the best auxiliary to start with both because its

<sup>2</sup> That is, a word (which Guillaume distinguished from a character in languages like Chinese) is a composite symbolic structure. It must have a meaning made up of a lexical component and a grammatical component related as matter to its form (cf. Guillaume, 1984: 38ff., 109ff.) so that it can both represent something the speaker has in mind to talk about and form this representation in such a way that it can enter into relationship with the meaning of other words in the sentence.

<sup>3</sup> This view of meaning as a representation of some experience by linguistic means (cf. Hirtle, 1994) is not to be confused with one which “identifies meaning with *conceptualization* (in the broadest sense), i.e. with *mental experience*” (Langacker, 1991: 4). The consequences of this difference will be seen below.

status as a word with meaning is so often denied and because it is considered by at least one linguist to best exemplify the auxiliary in English (cf. Langacker, 1991: 239). This then is what will be attempted here: to describe the meaning of DO auxiliary in order to explain its diverse uses. If successful, the attempt will throw some light on a number of the questions raised in a recent study (Warner, 1993: 20): how DO relates to the infinitive, its “curious distribution” and why it behaves as it does, what characterizes this type of word and its status with regard to the part of speech verb.

## 2. Approaching DO

In this century it has become traditional in linguistic analysis to treat DO as the Cinderella of the English auxiliaries. Sweet included it among words “which have little or no meaning in themselves” (1898: II, 31) and Jespersen (1924: 26) considered it an “empty” verb. Chomsky (1957: 100) described DO auxiliary as a “dummy carrier” which “can hardly be said to have a meaning in any independent sense” and others considered it “completely meaningless” (Joos, 1964: 59). However, for those who hold to the much older tradition that a word consists of form and meaning, a physical sign and a mental significate, this poses a fundamental problem. As Bolinger (1977a: 5) put it: “Which is right – the naive view that a word is a word, or the clever view that it is nothing?” What is the status of DO? If it is not a word it must be something else. What? On the other hand if DO is a word it must have a meaning. But what is this meaning? The problem is of real theoretical importance since words are, after all, “the fundamental units of language” (Miller, 1991: 261), the basis of not only every language but every act of speech.

This widespread approach to DO also leads to practical difficulties. Thus, Quirk et al. consider DO “an ‘empty’ or ‘dummy’ operator” (1985: 133), “a semantically empty syntactic component in sentence processes such as negation and interrogation ... whereas BE contributes to aspect and voice, and HAVE contributes to aspect” (p. 120). Elsewhere (p. 80), however, the same authors point out that “DO as operator ... in the variant forms of *do*, *does*, and *did* ... realizes distinctions of number and tense”. It would seem that such distinctions are also meaningful.

It is remarkable that this approach has been so widely accepted because it is apparently based on the authority of the grammarians and linguists who adopt it, not on any evidence they have drawn from usage. Indeed, as we shall see below, evidence based on a careful examination of discourse, and particularly of minimal pairs, reveals that the use of DO does introduce a nuance of meaning which would otherwise be lacking. The main advantage of considering DO meaningless seems to be to make possible a more coherent description of word order in the verb phrase, but there are uses it cannot account for so even this short term advantage is illusory. There is therefore good grounds for calling into question the “dummy DO” approach.

Turning now to the functions attributed to DO in discourse, grammarians sometimes point out that it acts as a “support” of, for example, the negative element (cf.

Quirk et al., 1985: 133f.). Others argue that an element of meaning such as 'past', not being expressed by the lexically full verb when it is an infinitive, requires some phonetic "support" and so DO appears, an argument which is, as we have just seen, in contradiction with the "dummy" approach because it entails the view that DO is used as a physical sign with a mental significate, unless for some reason tense is not considered a meaningful component. In fact, considering DO as a support implies that it is the time word, the finite verb which takes as a lexical import an event<sup>4</sup> represented in the form of an infinitive, or the negative. Thus the idea that DO serves as a support for another verb or an abstract lexical element like NOT throws some light on its status, but to be fully satisfying this approach calls for an explication of the notions of "support" and of "import", particularly to show why the meaning of one verb requires a support in the meaning of another verb. That is, it calls for both an analysis of DO to discern the meaning which permits it to act as a syntactic support, and an analysis of the infinitive's grammatical meaning to explain why it functions as an import calling for a support in such cases. Only then will it be possible to analyze the support function that DO carries out in the construction of the sentence and to describe it adequately.

As for the notion of "operator" it too is of considerable interest, though not very revealing as long as it is defined statically, resultatively, in terms of position: the first or only auxiliary of the verb phrase (cf. Quirk et al., 1985: 80, 120). On the other hand, when considered in terms of the operativity involved – for example its "crucial role in the formation of questions" (p. 79) – the notion can lead to a greater understanding of how the auxiliary brings the predicate into relationship with the subject, as we shall see. In the meantime, the very notion of "operator" contributing to "sentence process" calls for a comment. Any operator, anything that "performs an 'operational' function" (Quirk et al., 1985: 80), obviously has the capacity of doing so. Indeed, it is precisely "their *ability* to act as OPERATOR" (p. 120; my italics) that all auxiliaries have in common. What is this ability, this potential, shared with the other auxiliaries, which makes DO an operator? Presumably some sort of mechanism since it is the role of mechanisms to make operations possible. This too is a question that involves more than just DO because it probes the very nature of auxiliaries and ultimately raises one of the most general problems of the English verb: what the distinction between simple and compound verbs manifests concerning representational mechanisms and syntactic operativity. Although this question cannot be treated here, the results of the analysis of DO to be presented below will have to be situated within this larger context of analysis.

These remarks will perhaps suffice both to suggest why we still do not know "what auxiliaries actually are and why they behave the way they do" and to show that there is good reason for the examination of the meaning of DO to be undertaken here. There have, of course, already been attempts to characterize DO in terms of its meaning. For example, Bolinger (1977a: 192; 1977b: 5) claims that the meaning of

<sup>4</sup> To avoid misunderstanding, it should be pointed out that the term "event" is used as a generic to designate the lexeme of the verb – be it a state, an action, an activity, an achievement, etc., etc. – as formed by person, tense, mood, etc.

DO is “affirmation”. Langacker (1982: 296) is more explicit when he maintains that “DO is meaningful and predicates the existence of a process”.<sup>5</sup> Hewson expresses substantially the same view when he proposes (1990: 39) that DO “represents the occurrence of an event”. Adamczewski gives a more analytic description of this impression when he maintains (1975: 50) that DO signifies the relation between predicate and subject as already realized, thanks to the context, at the moment of speaking.<sup>6</sup> Such descriptions reflect the meaning expressed by the resulting compound verb, but in themselves are not sufficient because they do not make it clear how DO + infinitive differs in function from an ordinary use of the simple form in the indicative to express an occurrence.

A different, even conflicting, element of meaning is brought in by Penhallurick (1985: 311): “DO signals a presupposition that some question attaches in some way to the event designated by the verb”. He summarizes the “constant meaning” of DO as “occurrence questioned” (p. 315). In an attempt to combine both elements, Reid (1991: 13) characterizes the meaning of DO + infinitive as “the affirmation of an event whose possibility has been raised in the context”, that is, “implied possibility, affirmed”. Again one feels that this corresponds to an impression arising from the verb phrase as a whole, but that it calls for further analysis to distinguish the role of DO from that of the infinitive in order to describe the syntactic relationship between the two. The same comment applies to the meaning proposed by Tobin (1993: 257), who describes DO as “*The process-oriented or ‘modality’ auxiliary verb indicating the most basic sentence-types within the language*” (italics in the original). If, as postulated here, syntax is meaning-motivated, then the meaning of DO must be analyzed and described so that we can understand how, in combination with the infinitive and other elements (inversion, *not*) it helps bring about the sentence type. Only in this way can the *raison d’être* of DO be brought to light.

Based as they are on the observation of usage, each of these descriptions reflects some aspect of the reality of DO + infinitive and yet they do not provide the full answer. The problem is that none of them distinguishes with sufficient clarity between meaning represented and syntactic function and so fail to bring out the relation between them. Joly and O’Kelly make an important observation in this respect when they suggest (1987: 97) that DO expresses the existential conditions of an event, and so permits a discussion of the occurrence/non-occurrence question. Hewson (1990: 42ff.) takes us one step further in this direction when he emphasizes the hyponymic relation that obtains between the infinitive and the auxiliary, the role of the infinitive being to represent the particular event whose existential conditions DO represents in a general way. Even here, however, a question arises: how does DO represent the existential conditions of an event? Langacker (1987: 239) goes furthest

<sup>5</sup> However, elsewhere (1982a: 67; cf. also 1987: 354–355) he remarks that DO “has no effect on the meaning of the composite expression, despite its own (highly schematic) semantic value” because its meaning is “overlapped” and “eclipsed” by that of the “more inclusive” component, the infinitive. Below I will propose a different relationship between infinitive and auxiliary and maintain that the use of DO in positive contexts does have an effect on the meaning of the sentence.

<sup>6</sup> “L’incidence de prédicat à sujet n’est plus à faire, elle est chose faite (le contexte s’en est chargé) ... DO est le signe, l’indice de cette mise en rapport déjà réalisée” (Adamczewski, 1975: 50).

in answering this question when he proposes that the semantic content of DO is limited to a "fully schematic process" which involves "the domain of conceived time, together with whatever content is required to support the notion of a relation (as opposed to a thing)". Penetrating though such insights are, further development is required to bring out what this required content is, what DO represents in terms of the speaker's experience.<sup>7</sup> What is the meaning of DO auxiliary which so often prompts speakers of English to call on its representational possibilities?

The purpose of the present study is to develop such insights within the framework of an operational syntax through an examination of usage. By taking into account situation and context, and by employing contrastive techniques we shall try to get back to what the speaker had in mind in order to discern the semantic contribution of DO auxiliary to the compound verb in any particular sentence. This, then, constitutes the first aim of the present study: to describe the meaning of DO auxiliary, both its grammatical meaning consisting of mood, tense, person and the like, and its residue of lexical meaning, an abstract formal type of significate that can be discerned only through analysis (i.e. by comparing auxiliary DO with main verb uses<sup>8</sup> and with the other auxiliaries). Because of its meaning, it will be claimed that DO auxiliary is a verb, but a verb of a special type.

In the light of traditional views, this may appear to be a strong claim but an even stronger one will be made: that the behaviour peculiar to DO in the verb phrase is a consequence of its meaning. The key point in this second aim will be to describe the makeup of an infinitive and to show that, because of its grammatical meaning, the infinitive requires a support, which may be provided in several ways (auxiliary verb, full verb or some element of pragmatic expressivity), if it is to express the occurrence of its event. The syntactic relation between infinitive and auxiliary will then be examined in the light of the meaning of each component in order to see how the various syntactic functions of the compound verb are fulfilled. That is, it will be argued that the behaviour of both DO and the infinitive in the verb phrase is meaning motivated.

The theory on which this analysis is based, Guillaume's *Psychomechanics of Language*, postulates that human language is essentially a means for representing and expressing one's momentary experience, what one has in mind. Since we can express only what our language represents of our experience, it follows that, in order to understand and explain what is expressed by means of phrases and sentences, it is necessary first to understand and explain what is represented by means of words.<sup>9</sup> Hence the need to analyze both DO and the infinitive as words, as mechanisms of representation, before attempting to understand how they can combine to form a

<sup>7</sup> This further step in analysis, which is entailed in the postulate that words are the means for representing our momentary experience, gives rise to a thoroughly meaning-motivated analysis of usage. Without it, one is led to proposing that DO "only appears in the absence of any other auxiliary when one is needed for grammatical purposes" (Langacker, 1987: 238).

<sup>8</sup> To avoid confusion in the ensuing discussion, DO will be used to designate auxiliary uses. Main verb uses will be specified as such.

<sup>9</sup> Cf. Guillaume (1984: 79-99) on the relation between representation and expression, between word and sentence.

verb phrase with its different syntactic possibilities. This leads to an operational view of syntax since it entails bringing out the processes of “incidence”,<sup>10</sup> that is the processes involved in relating the meaning of an import word to that of a support word in order to produce the resulting meaning of the phrase. Far from divorcing syntax and meaning, then, the Psychomechanics of Language views one as conditioned by the other since the speaker first constructs the words needed, each with its lexical and grammatical meaning, and then combines them into coherent meaningful units according to the possibilities of each word’s meaning. In Guillaume’s terms, “Every language has the syntax of its morphology”.

### 3. The meaning of DO + infinitive

#### 3.1. DO

The fact that DO auxiliary, like BE and HAVE, does not express any readily observed lexical meaning is a clear indication that it has undergone a considerable withdrawal of its lexical matter, a bleaching, a dessemanticization or as it will be called here, a dematerialization (since it concerns the material signifié). Discussed in some detail in Guillaume 1938/1964, this process can be seen to have operated on main verb DO to make it far more abstract in meaning than most other verbs, even before it developed into an auxiliary.<sup>11</sup> For main verb DO to become an auxiliary, its already abstract meaning had to undergo further dematerialization, and this within the word itself. Through a process of generalization, this emptying reduced the lexical component to a minimum, the minimum necessary to maintain the status of DO as a word.<sup>12</sup> As a consequence, the verb is polysemous in Modern English, offering both the possibility of main verb usage, with either its full meaning (though dematerialized with regard to most other verbs) or as a suppletive, and the possibility of auxiliary usage with its own more abstract meaning (dematerialized with regard to its own full meaning).

Granted that full verb DO expresses a meaning far more general than that of most other verbs, it would be pointless to seek some verb sufficiently general to describe its meaning adequately. Dictionaries speak of it in terms of “bring about”, “carry out”, “perform”, “complete”, “execute” and the like, all of which suggest that full verb DO represents what is common to activities of various sorts. As a consequence of its thus expressing activity in such a general sense, many particular activities being its hyponyms (cf. Hewson, 1990), full verb DO can help bring out an extraor-

<sup>10</sup> The term “incidence” designates the basic mental operation of syntax which involves applying the meaning of one word or phrase, the “import”, to that of another, the “support”. Cf. Valin (1981) for a study based on this operational view of syntax.

<sup>11</sup> See Hewson (1990) for a particularly clear summary of the theory of dematerialization.

<sup>12</sup> Without this minimum, this residue of lexical meaning, the system of the word as we know it could not have subsisted and, instead of being an auxiliary, DO could have survived only as a grammatical suffix, as Guillaume (1964: 79ff.) demonstrates for the development of L. *habere* to give the endings of the future tense in French.



dinary range of activities in context: *to do the dishes, to do an article, to do Shakespeare, to do Paris, to do without*, etc., etc. On the other hand, certain activities cannot be expressed in this way. The fact that we do not say, for example, *\*to do an effort* indicates clearly that the lexeme of full verb DO has not been generalized to the point where it can express every type of activity.<sup>13</sup>

This limitation does not appear to apply to what has been called the vicarious, proverb or suppletive use, where "*to do* can refer to a verb of action that has been mentioned shortly before" (Kruisinga, 1931: 413). Indeed, here full verb DO appears to be able to supplete for any other verb expressing an activity including MAKE, as in:

I asked him to make a real effort and he did just that.

In this use it is particularly frequent with *so*:

They told him to keep a record of it and he did so.

When used suppletively in this way, DO cannot be considered just one more use of the full verb because rather than opposing MAKE it can replace it. Nor can it be considered a manifestation of the auxiliary because it calls for the auxiliary in negative or interrogative contexts. Thus:

They told him to keep a record of it but he didn't do so. (\*but he didn't so)

In fact this syntactic behaviour provides a convenient test in cases such as:

They told him to keep a record of it and he did.

"Did he come?" – "He did." (Cf. Joly and O'Kelly, 1990: 191)

where the distinction between suppletive DO and auxiliary DO is not immediately apparent.

The range of meaning of full verb DO and suppletive DO will not be further examined here since what we have seen suffices as a basis for exploring the dematerialization which results in the auxiliary's meaning. To see how this already dematerialized meaning of full verb and suppletive usage can be even further dematerialized it should be kept in mind that the sense of 'activity', although very general, is not sufficiently so to take in all events expressed by verbs. This can be illustrated by the suppletive use in:

I asked her to learn that poem and she did so.

He always wanted to buy an Alfa Romeo and finally he did so.

<sup>13</sup> One means of discerning more precisely the limitation observed here is to explore in detail the distinction between full verb DO and MAKE, a question of interest to ESL teachers.

Suppletive DO would not, however, occur in the following contexts:

\*I asked her to know that poem and she did so.

\*He always wanted to own an Alfa Romeo and finally he did so.

Suppletive DO would not be used to stand for the verbs *to know* and *to own* here because they express an event which is lexically stative as Quirk et al. (1985: 878) points out. On the other hand, auxiliary DO can be used with such verbs:

I asked her to know that poem and she did.

He always wanted to own an Alfa Romeo and finally he did.

The point here is that auxiliary DO, even more general in sense than the most general sense of full verb DO, expresses something that is common to all events, stative or dynamic. This is similar to the conclusion Langacker (1991: 238) reaches by contrasting the same two uses of DO: “the auxiliary *do* occurs with any content verb and refers to any sort of process”. Here, then, it is being proposed that just as suppletive DO with its partly reduced lexical content is the result of partly dematerializing full verb DO, so auxiliary DO, with its maximally reduced lexical content consisting of something common to all events, is the result of carrying the dematerialization as far as possible without jeopardizing the status of DO as a word. It remains to discern and describe this common element, this “fully schematic process” (Langacker, 1991: 239), in terms of what it represents in the speaker’s experience.

The best way to bring out what is common to all events will be to summarize the difference between stative and dynamic events, a difference described in some detail in Hirtle (1987). An occurrence perceived as a state is represented as “monophasic”, that is, each of its phases, moments or instants is the same as all the others since there is no development. An occurrence perceived as dynamic, on the other hand, is represented as “metaphasic” because each phase or instant involves a development. That is, the underlying difference between events seen as stative and events seen as dynamic is that the former are represented in such a way as to allow no change from one moment to another (any change would bring the event to an end), whereas the latter are represented as involving change, or at least the possibility thereof, from one instant to the next. The grammatical consequences of this very general distinction, particularly with respect to the simple/progressive dichotomy, will not be pursued here since our concern is rather what both types of event have in common.

What is common to both types is the series of successive phases or instants making up the event, the time between the beginning and the end of the event, its event time. Event time is the grammatical representation of the duration of an occurrence. Duration is, in fact, a necessary element of any perceived or imagined happening, whether a process or a state, and so we can represent a happening linguistically as an event only by representing one or more of its instants in a sequence. It would seem then that the residual lexical meaning of auxiliary DO, what remains after dematerialization is pushed to the limit, is the representation of the stretch of time contained in any event, of event time, but with no particular event depicted.

Postulating a representation of a stretch of time as the abstract meaning that DO auxiliary brings to the verb phrase calls for several comments. We know from experience that absolutely every occurrence has a duration. DO reflects this generalization from our experience of particular happenings, with the consequence that it can not represent any particular one. That is to say, maximally dematerialized though it may be, there still remains in the meaning of the auxiliary something other than the strictly grammatical (mood, tense, etc.), something of the nature of a concrete property linked with the experience of any occurrence whatsoever, namely its duration: for something to occur, it must take (its) place in time, it must occupy a stretch in the time which brings it to pass. Representing an occurrence linguistically involves representing this duration or some part of it, and so all verbs involve the representation of event time. The need to represent this stretch of duration separately from any particular event is the basis for instituting DO auxiliary in the system of the English verb.

Just as there can be no verb without representing a stretch of duration, so there can be no complete verb without representing an occurrence, a specific event. This implies that, left with only a minimal lexical meaning, DO cannot stand as a verb of discourse: it requires the representation of a particular event as its lexical completion and so can be used only as an auxiliary. And yet DO qualifies as a word since its meaning, abstract though it may be, does occupy the place that a full lexical representation would occupy because it results from the same lexical processing operation any other word calls on, ideogenesis. Furthermore, this representation of a stretch of time is categorized by means of the same grammatical processing system that is found in any other verb, chronogenesis, wherein it is treated for voice, aspect, mood, tense and person, as we shall see below. In short, the meaning components of DO auxiliary are produced by ideogenesis and morphogenesis, the two operations constituting the system of the word,<sup>14</sup> and so DO satisfies the minimal conditions for a word, at least from the point of view of the word-forming system in tongue.<sup>15</sup>

From the point of view of its use in discourse, however, DO cannot fulfil its function as a verb, as we have seen, because it cannot predicate an event of the subject without a refill of lexical matter. For this reason DO requires a complement of lexical matter to make up a verb of discourse, this being provided by an infinitive with its own ideogenesis and morphogenesis, or, in rare cases, some pragmatically expressive element in the situation, as we shall see. The point here is that DO auxiliary does not have the capacity of expression or the syntactic autonomy most words have in a sentence, and so it appears not to have the status of a word to those whose sole concern is the way it is used in discourse, even though, as we have just seen, it does have the essential components of a verb, and so must be considered a word at the potential level of language, in tongue.

<sup>14</sup> See Guillaume (1984: 109–118) for comments on the two operations constituting the structure of words in Indo-European languages: ideogenesis, an operation of particularization or discrimination, and morphogenesis, an operation of generalization or categorization. For a summary description of the morphogenesis of a verb in English, its chronogenesis, see Hirtle (1975: 13–21).

<sup>15</sup> The term “tongue” is used here to designate one’s language as an internalized potential ready for use. As the near equivalent of Saussure’s *langue*, this term avoids the confusion arising from other translations. It is opposed to “discourse”, the uses of the resources available in tongue.

So far we have used the contrast with full verb and suppletive uses to infer that the ideogenesis of auxiliary DO provides the representation of a stretch of duration. A similar line of argument with the other two grammatical auxiliaries, BE and HAVE, would lead to the same conclusion: both provide the representation of a stretch of time seen as the duration of a happening. This result of dematerialization is, in fact, basic to the system of these auxiliaries. Although it would take us too far afield to examine each of them in detail here, we can make our view of DO more precise by briefly contrasting it with these other auxiliaries on the level of usage.

The most obvious point of contrast is in the nonfinite form providing the lexical refill: the past participle for HAVE, the present participle or the past participle for BE, and the infinitive for DO. Extensive examination of usage has shown that HAVE + past participle always expresses the result phase of the past participle's event, whatever arises in its aftermath as an outcome of the event (cf. Hirtle, 1975, and Korrel, 1991). That is, if HAVE situates a moment of duration in time at, say, the beginning of the non-past, the past participle's event constituting its lexical refill will necessarily be seen prior to this point. In other words, HAVE expresses the duration, not of the event lexically represented by the past participle, but of the necessary consequence of that event. Thus as its residual lexical meaning, HAVE appears to represent a stretch of time arising after that of the event represented by the past participle. The contrast with BE auxiliary in this respect is clear: BE + present participle always expresses the coming-to-be phase of a metaphase event, some part of its development (cf. Hirtle, 1967; Hirtle and Curat, 1986; Hirtle and Bégin, 1991). That is, if BE situates a moment of duration in time at the beginning of the non-past, the present, a moment of the participle's event will necessarily be seen incident to that moment of BE and so taking (its) place in the present. Thus as its residual lexical meaning, BE appears to represent a stretch of time where some moment within the participle's event is being actualized, thus giving rise to the impression of an "event in progress". Similarly for the passive: BE always represents a stretch of time wherein the actualization of the participle's event is situated. The contrast between HAVE and BE therefore comes down to representing a stretch of time that comes after the participle's event and representing a stretch of time which coincides with the event.

How about DO? We saw above that DO represents a stretch of time, not arising after the event like HAVE, but within the event like BE. HAVE + past participle is, therefore, the only way to evoke the aftermath of the event, to express the transcendent aspect. Both BE and DO evoke time within the event and so express the immanent aspect,<sup>16</sup> but they do it differently. Whereas BE represents a stretch of time *in* which the event is taking/takes place, DO represents time *for* the event to take place in. Because the time stretch of DO is seen as a space for the prospective realization of the event, the event providing the lexical refill of DO must be grammatically formed by the morphogenesis of the infinitive. Duffley (1992) demonstrates that the infinitive in the system in tongue is the form for an event to be actualized, whereas the participles in tongue are forms for events seen as already actualized, at least in

<sup>16</sup> For the immanent/transcendent system of aspect, see Hirtle (1975) and Korrel (1991).

part (see Fig. 1 below). That is, if in discourse DO represents a moment situated at a given place in time, say, at the beginning of the non-past, the present, a moment of the infinitive event is seen as to be actualized there, as actualizable in the present. DO appears to represent a stretch of time ready for the event actually to take its place there.

All three auxiliaries thus represent a moment or stretch of time (at the limit, only an instant) to which an event is made incident. In the case of HAVE, the event is incident to a stretch of time beyond its own locus, but in the other two cases to a stretch of time coinciding with its own locus. That is to say, what is incident to the moment of duration represented by HAVE is the event's result, the consequence of the past participle's event, which is, in effect, another event, whereas for both BE and DO what is incident to the moment of duration is the event itself: the event as actualized at least in part in the case of BE, and the event ready to be actualized in the case of DO. In this way the system of the three grammatical auxiliaries permits the representation of a stretch of time:

- (1) before the event's realization in it (DO)
- (2) during the event's realization in it (BE)
- (3) after the event's realization (HAVE).

Because of the system of grammatical aspect, the "before-time" of DO is time coincident with the event, whereas the "after-time" of HAVE is time outside the event after its actualization. Viewing the three auxiliaries in this way thus leads us to propose a system involving a common semantic field in which each represents a different position, and it is the meaning resulting from the respective positions in the field which explains the particularities of usage of each auxiliary, as we shall see below for DO.<sup>17</sup>

This view of DO helps explain both its affinity with the modal auxiliaries and the differences. The modals differ from DO with respect to the lesser degree of lexical dematerialization they have undergone: their ideogenesis results, not in the representation of a stretch of duration as such, but in the representation of a condition of potentiality in the course of its existence. They are, nevertheless, auxiliaries, being dematerialized to the point where they cannot function in discourse to predicate an event without the direct incidence of a material complement in the form of a verb. Furthermore, the modals require their event-refill to be formed as an infinitive because, from the point of view of a condition of potentiality, no portion of the event's duration can be represented as already actualized. In this the modals resem-

<sup>17</sup> Worth mentioning by way of contrast with this approach based on meaning is the "lexical-functional" account provided in Falk (1984): "The inflection of *have*, *be*, and *do* is explained by the fact that they are verbs. Their auxiliary-like behavior results from a lexical feature AUX which causes the finite forms to become modals, and prevents them from following *do*" (p. 507). It is pointed out elsewhere that AUX "has a unique value for each one. We can indicate this value as the orthographic form of the verb itself" (p. 501). This appears to suggest that it is the orthographic form of the verb, not its meaning, which causes its auxiliary-like behavior.

ble DO because, as we have seen, from the point of view of yet-to-be-filled time, no portion of the event's duration can be represented as already actualized. Moreover both the modals and DO take a bare infinitive, a sure indication that the infinitive event is represented, not at a place in time subsequent to that of the auxiliary (the role of the *to*-infinitive), but rather at a place in time coinciding with that indicated by the morphology of the auxiliary.<sup>18</sup>

Even though both modals and DO take a coincident infinitive, there is an important difference between the infinitive when it is used with the modals and when it is used with DO. Duffley has shown that the infinitive, which in tongue has the potential meaning of an event to be actualized, is polysemous in actual usage in discourse since its event must be presented in one of two ways: as a possibility whose chances of actualization are discussed, or as an actual occurrence whose very actualization is discussed.<sup>19</sup> The modal auxiliaries focus on various conditions of potentiality and with regard to these conditions the infinitive event can be seen only as something potential. DO focuses on the time involved in the occurrence or coming-into-existence of the event and with regard to this time the infinitive event must be seen as something ready to be actualized. This distinction between the modals and DO will be adopted here: the modals take an infinitive of "coincident potentiality" whereas DO takes an infinitive of "coincident actualization" (Duffley, 1992: 113).

So far we have examined the abstract lexical meaning residue of DO by contrasting it summarily with the meaning of main verb DO, the meaning residue of BE and of HAVE, and the type of meaning expressed by the modal auxiliaries. To complete our discussion of what DO contributes to the verb phrase it remains to examine what it has in common with all other verbs, its grammatical or formal meaning. As noted above, Quirk et al. (1985) considers that DO distinguishes between person and tense but not, apparently, voice, aspect, and mood. Reasons will now be given to support the view that DO is, grammatically speaking, a full-fledged verb incorporating representations from all the sub-systems of the verb: voice, aspect, mood, tense and person.

Granted the opposition between *do* and *does*, it seems clear that the category of person is represented in DO just as it is in other verbs in the indicative. Representing person in this way involves integrating, not a temporal category as in the case of aspect, mood and tense, but a spatial category into the complex grammatical representation of the verb, person being, even in its most concrete ordinal realization – first, second and third persons – an abstract representation of space. The role of person in a verb is to provide a spatial support for the temporal entity we call the event,

<sup>18</sup> Examples of full verbs governing the infinitive will help to bring out this difference between bare and *to* infinitives. Thus the realization of the infinitive event obviously coincides in time with the realization of the event of the finite verb in *I saw him leave*, whereas in *I asked him to leave* the realization of *leave*, if it took place, would have been subsequent to the asking. For many other such examples and a full discussion of the question see Duffley (1992).

<sup>19</sup> The distinction between these two versions – between expressing the chances of occurring, the potentiality, of an event and the actual occurring or actualization of an event – can be illustrated quite clearly by means of the *to* infinitive: in *He wanted to escape*, although the chances of escaping are expressed in terms of 'wanting', there is no indication whether the escaping was realized or not, whereas in *He managed to escape* its realization is clearly indicated.

to provide the abstract representation of a spatial entity without which an event would be inconceivable. Representing person during the morphogenesis of the verb involves establishing, within the verb itself, a spatial support for the event. In the indicative and subjunctive moods, this intraverbal spatial support seeks a support outside the verb in the subject (cf. Duffley, 1992: 118–123 for more detail).

Thus the very fact of representing person within the verb itself entails establishing the relationship between spatial support and event. This relationship, however, is at the basis of the system of voice, which discusses the extent to which the subject (and, of course, the internal spatial support) conditions the accomplishment of the event. It follows that DO, like any other verb incorporating a representation of person, also incorporates a representation arising from the system of voice, but just what this is cannot be explored here.

The visible opposition between *do/does* and *did* makes it clear that tense is represented in DO just as it is in any other verb in the indicative. Proposing tense as a category in this way, however, involves certain assumptions. If, as most grammarians suggest, tense involves situating some event in a time sphere (past or non-past),<sup>20</sup> this presupposes that both the event with the time it contains and the time sphere that is to contain the event have already been represented during the morphogenesis of the verb. That is, DO can express tense only if it incorporates both a representation of contained or event time, which is at the basis of the system of grammatical aspect,<sup>21</sup> and a representation of containing or universe time, which is fundamental to the system of mood (cf. Hirtle, 1975: 13–21). Although we are thus led to recognize that the residual lexical matter of DO is formed during the process of morphogenesis by voice as well as person, by aspect and mood as well as tense, there are certain limitations. DO auxiliary cannot be represented in either the passive voice or the transcendent aspect, nor can it be conjugated in the quasi-nominal (nonfinite) mood. A brief examination of the infinitive and the other tenses of the quasi-nominal mood will bring out the reason for these limitations and at the same time provide a view of what the infinitive contributes to the verb phrase.

### 3.2. *The infinitive and the participles*

Several authors have pointed out that, through its lexical meaning, the infinitive specifies the nature of the event in the DO + infinitive phrase. In effect, through its ideogenesis an infinitive, like any other form of a full verb, represents the nature of some occurrence in the speaker's experience as an activity or a state whose existence extends over a series of instants, what I shall call a "process".<sup>22</sup> Outside of this, the

<sup>20</sup> Cf. Comrie (1976: 1–2): "Tense relates the time of the situation referred to to some other time, usually to the moment of speaking".

<sup>21</sup> Cf. Comrie (1976: 3): "As the general definition of aspect, we may take the formulation that 'aspects are different ways of viewing the internal temporal constituency of a situation'".

<sup>22</sup> It is sometimes useful to distinguish between the lexical representation resulting from ideogenesis, the process (a term used in the sense Langacker gives it), and the lexical + grammatical representation resulting from both ideogenesis and morphogenesis, the event. This distinction, useful in analysis, corresponds to nothing in actual usage since words can occur in discourse only if both phases of their formation have been completed.

role of the infinitive has received surprisingly little attention in studies of DO, perhaps because an analysis of the grammatical makeup of this verb form has only recently become available. Working from Guillaume's insight (cf. 1964: 82) to the effect that the infinitive is the most virtualizing form of a verb, Duffley (1992) examines the English infinitive in the light of its various uses to show how it achieves this virtualizing effect. These findings will now be summarized because some notion of the infinitive's makeup is obviously necessary in order to understand the role of DO as an operator.

By contrast with verbs in the indicative mood, those in the quasi-nominal or nonfinite mood (the infinitive and the participles) cannot take a subject. That is, they have no built-in reference to the speaker and so cannot specify the place in space, the person, of the process. It cannot be concluded, however, that there is no representation of person in this mood since an event cannot be imagined without some spatial support: inherent in the very notion of a process is that of a spatial element. How is person represented here? Observation of usage shows that the infinitive and the participles can be made incident to any particular spatial support, or even to no particular spatial support. From this it can only be concluded that person is represented in this mood as virtual, as not determined for ordinal (first, second or third) person the way it is in the indicative mood.

Similarly for tense: the infinitive and the participles have no built-in reference to the present because the quasi-nominal mood represents containing or "universe time" as undetermined, as an endless, undivided stretch. Consequently the infinitive and participles cannot specify the place in time of their process the way a verb in the indicative does by situating it either in the past or the non-past time sphere. In other words, like its place in space, the place in time of an event in the quasi-nominal mood is represented as virtual and so, through syntactic incidence in discourse, the event can be referred to any or no particular moment.

The tenses of the quasi-nominal mood are alike in these two respects: they express an event whose localization in space and in time is left undetermined, represented as virtual. In one important respect, however, the infinitive differs from the participles – in the representation of contained or event time. Whereas the participles represent their event as fully or partly accomplished already, the infinitive, as mentioned above, represents its event as to be accomplished. Fig. 1 will help clarify these three different ways of representing event time as provided by the system of tenses in the quasi-nominal mood.

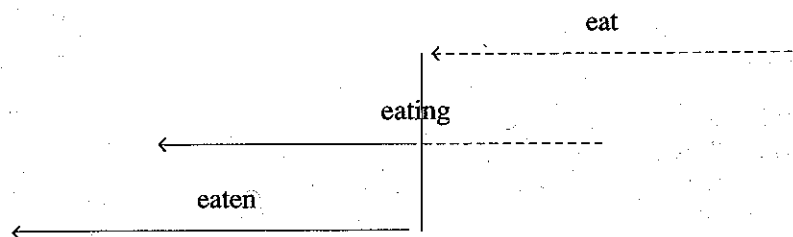


Fig. 1. The infinitive represents an event as yet to be accomplished (duration depicted by a broken line); the 'past' participle represents an event as already accomplished (duration depicted by a solid line); the 'present' participle represents an event as partly already accomplished, partly yet to be accomplished.



Thanks to this system, any process represented through ideogenesis can have its duration represented as imminent, as on-going or as over, depending on how it is perceived in the intended message, but without any determination of its localization in space or time.

The important point for the present discussion is to have a clear view of the infinitive. The lexical import of the infinitive, the result of its ideogenesis, is a process, a representation of the nature of some occurrence (activity or state), involving duration (extension in time) and dependent on some spatial entity as a support. The other phase of word construction, morphogenesis, grammaticizes this lexical import by representing the stretch of duration involved as a series of instants to be accomplished, along with its coexistent spatial support, the grammatical person of the infinitive, but without determining in any way the nature or position of this support. Nor is the place in time of the infinitive's event with its spatial support determined. As a consequence the infinitive event is seen as virtual; it arises before the mind with no real place in either space (relating it to the speaker) or time (relating it to the present), with neither a subject nor a time-sphere. And in some cases, the infinitive is actually used in discourse with no determination of its event, with no representation of a determined support in space or place in time: *To sleep: perchance to dream*. Thus, as far as the infinitive is concerned, not only the spatial support and the temporal support but even the event time is seen as virtual, as actualizable but not yet actualized. This is why the infinitive is considered the most virtualizing of all verb forms.

We can now confront the morphological problem raised above: why does DO auxiliary have no infinitive or participles, no quasi-nominal mood? Main verb DO is not defective in this way,<sup>23</sup> nor are BE and HAVE, even as auxiliaries. Only the modal auxiliaries are like DO in permitting no representation by means of the nonfinite forms. This suggests that it is the meaning specific to DO auxiliary (and to the modals) which is incompatible with these forms.

This incompatibility can be easily recognized in the case of the participles. The past participle is called "past", not because it situates its event in the past time-sphere of the indicative mood, but because it represents the time contained in the event, its event time, as "past", that is, as already accomplished, regardless of the moment in time – in universe time – where it may be situated. Obviously, the use of *done* as an auxiliary would involve a contradiction between the residual lexical meaning of DO auxiliary and the grammatical meaning of the past participle, i.e. between a stretch of duration ready for the accomplishment of the event and this same stretch of duration represented as already accomplished. Likewise for the present participle, which is called "present" because it represents the event in the course of its realization, as already accomplished in part and in part yet to be accomplished, regardless of where it may be referred to in universe time. Again there would be contradiction with the meaning of DO: a stretch of duration viewed as ready for the event's accomplishment cannot itself be represented as partly accom-

<sup>23</sup> Speaking of the main verb vs. auxiliary uses of DO, Quirk et al. (1985: 879) remark: "The major criterion for distinguishing these two is that the main verb *do* has nonfinite forms".

plished already. A consequence of this incompatibility with the participles is that DO auxiliary cannot be represented in the passive voice, in the transcendent aspect, or in the progressive.

How about the infinitive? There is certainly no incompatibility here since the infinitive represents an event as yet to be accomplished, never as already accomplished, even in part. Indeed, the residual meaning of DO and the manner of representing event time in the infinitive appear, from this point of view, to be identical: a moment or stretch of time ready for realization. That is, DO as an infinitive would add nothing to the view of the event provided by the main verb infinitive on its own and so DO is not itself found in this tense. But then why have the auxiliary at all, if the infinitive already provides the means of representing a stretch of duration in the same way as DO? One reason is that the infinitive, because of its virtuality, cannot represent an event in terms of reality, i.e. with reference to the here and now of the indicative.<sup>24</sup> This is where DO makes a key contribution, as we shall now see.

DO + infinitive is a means of representing an event as virtual and yet discussing its real existence in time and space because DO does relate it to the present and to the speaker. Its real existence in space is discussed in terms of its predication of, its incidence to, the subject, effected through the ordinal person of DO. The real existence of the event in time is discussed in terms of its access or incidence to the stretch of duration related to the present by the tense of DO. In fact, we shall see that whenever the “actualizability” of an event is called into question, the event is represented by the infinitive in order to leave all possibilities open and it is the role of DO to provide the conditions of existence for one of these possibilities. In this way, thanks to its own grammatical meaning, DO functions as a support for the infinitive event, providing it a place in space and a place in time, a role it could not play if it were itself an infinitive.

Thus the infinitive’s virtualizing representation of an event is actualized by DO providing it a place in space and time.<sup>25</sup> These are, in fact, the “existential conditions” of the event which, once determined, permit the compound verb to express the “existence” or “occurrence” of the event. In this way too, we can see how, by making a virtual event incident to an actualizer in the DO + infinitive construction, the speaker can obtain effects described above as “occurrence questioned” and “implied possibility, affirmed”. That is, the verb phrase itself must be seen as a unit resulting from the incidence of one meaningful component, the infinitive, to another, DO. Only if viewed in this way, as resulting from an operational syntax, can the expressive effects of DO + infinitive be satisfactorily explained.

<sup>24</sup> Roch Valin suggests (personal communication) a more fundamental reason: DO is inherently incompatible with the representation of universe time in the quasi-nominal mood as descending because it represents a stretch of duration: “In universe time, a duration can only extend in a direction which goes from the first instant to the last, that is, in an ascending movement”. This promising avenue of reflexion cannot be explored here since it would require an extensive discussion of the system of mood and of the other auxiliaries.

<sup>25</sup> This relationship between auxiliary and infinitive is different from that proposed by Langacker (1987: 355): the “full inclusion” of the auxiliary’s meaning in that of the infinitive.

The aim so far has been to show that DO auxiliary, far from being just a "dummy carrier" is the sign of a complex meaning. Lexically, DO is an instrument for conceiving a stretch of duration, and grammatically it forms, categorizes, "morphogenizes" this abstract lexical import by means of the five subsystems of the verb. X Granted then that DO is a meaningful word and that the meaning of words conditions how we use them, the next step is to examine the various uses of DO to see if the meaning postulated here can explain them in terms of the resulting message.

#### 4. DO in discourse

##### 4.1. Support and operator

The uses of DO + infinitive are generally discussed in terms of the type of context in which they occur – positive, negative or interrogative. Since the first two both declare something about the subject, it is not uncommon to consider them declaratives and oppose them to interrogative contexts, which evoke only a possibility with regard to the subject. That is to say, the uses of DO + infinitive are to be regarded in the light of two dichotomies: declarative/interrogative and positive/negative. In the ensuing discussion it will be argued that these dichotomies arise from two different operations of incidence.

It was pointed out above that the infinitive is sometimes used with no spatial or temporal determination. In the cases that interest us here, however, the support in space and the place in time are both determined for the infinitive event because DO, in the indicative mood, is situated in a time-sphere and takes a subject. As we have seen, DO + infinitive is a means of first representing an event as virtual by means of the infinitive and then discussing its real existence in time and in space because the auxiliary relates the event both to the speaker and to the present, the *hic et nunc*. A closer look will help bring out how DO plays this double role as support and operator, providing a place in time and permitting incidence to a subject.

Thanks to its residual lexical content and its tense in the indicative, DO can provide a stretch of duration, say, prior to the present, in the past time-sphere, thus offering a support in time to the virtual event of the infinitive. When the event's incidence to this place in time is actualized the resulting sentence is positive. That is, if the incidence of the infinitive to the stretch of duration provided by DO is effected, its event's realization in time can be declared because the event is seen taking (its) place there. On the other hand, when the infinitive event's incidence to the place in time provided by DO is not actualized, the resulting sentence is negative. That is, if the infinitive's incidence to the stretch of time in the indicative is denied by *not*, its nonrealization in that stretch of time can be declared because the event is seen as not taking place there. Thus the positive/negative dichotomy can be seen as arising from the realization/nonrealization of the syntactic incidence of main verb to auxiliary, of the infinitive seeking a temporal support in DO. This manner of viewing the establishing of syntactic relationships within the compound verb in order to show how DO acts as a support in declarative sentences will be explored in more detail below.

Besides providing a place in time thanks to its mood and tense, DO can provide the event with a place in space thanks to its person. As we saw above, person is represented within the auxiliary, as it is within any other finite verb, in such a way as to require incidence to some external support in space, to a representation of ordinal person in a subject. Thus the undetermined person of the infinitive event, after taking on the form of person as represented in the auxiliary, seeks the explicitly determined person of its spatial support represented outside the verb in the subject. This brings out the “ability” of DO to act as an operator: unable to evoke an event because of its extreme dematerialization, DO, like any other finite verb, does have the ability to effect the external incidence of some other event, of relating the infinitive event to the subject. This incidence of a finite verb to its external support, often discussed in terms of agreement (cf. Hirtle, 1984, for an attempt to discern the operation involved), also gives rise to a double alternative. If the incidence of compound verb to subject is effected so that the event actually finds its external spatial support, then the verb is predicated of the subject and the result is a declarative sentence. If however the external incidence of the verb is evoked as a mere possibility and is not effected, then the event is left as a possible predication of the subject and the result is an interrogative sentence. Thus the declarative/interrogative dichotomy can be seen to arise from realizing/not realizing the incidence of the compound verb to its subject, a view which we will examine in more detail shortly.

First, however, I want to underline a point brought to light by analyzing DO + infinitive in terms of incidence in this way, a point which, if valid, may well provide an indication of the nature of compound verbs in general. The incidence of infinitive to auxiliary results, as we have seen, in the event taking on the tense and person of DO. That is, the auxiliary realizes or determines what is left undetermined in the quasi-nominal form, a finding which throws light on the view that an auxiliary is “a verb in a determining relation to another verb” (Matthews, 1981: 96). On the other hand, in providing a determination of the event’s grammatical form that completes that resulting from the morphogenesis of the infinitive, the auxiliary effects a relationship which is much more intimate than that effected by determiners like *any* or *all* or even the articles. As a consequence, not only is DO to be kept distinct from such determiners, but the compound verb construction effected by DO can be seen to be of a different syntactic nature from other syntactic constructions like noun phrases or even other constructions involving a verb.

It is time now to explore how DO operates in questions, especially insofar as the incidence of predicate to subject is concerned. We shall then look at how it functions as a support in negative sentences, and finally examine its role in positive sentences.

#### 4.2. *A meaningful operator*

The following is typical of the use of DO in questions:

Did Eric consult a dictionary?

The expressive effect here is to evoke two possibilities, the realization and the non-realization of consulting a dictionary, whence the yes/no answer solicited. The

infinitive *consult*, as we have seen, provides the speaker with the means of representing the event as virtual in this way and *did* provides both a place in the past time-sphere for situating the event and an internal spatial support for making the link with *Eric*. In the meaning resulting from the sentence, however, the past event is not actually predicated of the subject; *Eric* is thought of as a possible spatial support of the event but we are not told that he actually carried it out. The only perceivable indication in the sentence that *consult a dictionary* is not actually made incident to *Eric* is the inversion of auxiliary and subject so this would appear to be the sign that the incidence of predicate to subject is not effected, even though this possibility is provided for in the grammatical system of any verb in the indicative.

This inference, that inversion signifies nonrealized incidence here,<sup>26</sup> thus provides a syntactic sign with a syntactic meaning. Since the auxiliary is the only means of establishing the syntactic relation between the event and the subject, it suffices to invert *did* and *Eric* to indicate that this syntactic operation is not carried out. On the other hand, the incidence of the infinitive event to *did* has been effected, judging by the fact that the question is concerned with whether consulting a dictionary was realized at some point in the past. This hypothesis thus throws light on the role of the auxiliary by showing that in such questions *did* provides a temporal support and an internal spatial support (= person) for the lexical import of the predicate, but it cannot provide the transport of this predicate import to the subject, the external spatial support, which is the role of any finite verb. Moreover, this hypothesis brings out a distinction concerning person, since the incidence of the event to the internal spatial support provided by the auxiliary is actualized in the above question, whereas the incidence to the spatial support provided by the subject is not. The intraverbal person of *did* is represented in only the most general, grammatical terms whereas *Eric*, a proper noun, designates, out of all the possible entities, the unique spatial entity being talked about in this sentence. Much remains to be explored here, and particularly the manner in which person is represented within *did*,<sup>27</sup> but this will perhaps suffice to give a general idea of the function of DO as a syntactic operator in interrogative sentences.

We can thus see three factors giving rise to interrogative sentences of this type:

- (1) the grammatical meaning of the infinitive, which presents its event as virtual;
- (2) the meaning of DO, which permits the auxiliary to provide a support for the infinitive's event;

<sup>26</sup> Whether or not this hypothesis can be extended to other cases of subject/finite verb inversion remains an open question for the moment. Penhallurick's claim (1987: 127) that all cases of auxiliary inversion express "the meaning that *uncertainty attaches to some element of the predicate in some way*" lends support to its wider application. Newmayer is of a very different opinion, namely that "The environments in which the inverted auxiliary construction occurs defy a uniform semantic characterization" (1990: 23).

<sup>27</sup> It is significant that there is no semiological indication that ordinal persons are distinguished in the past. Only with *does* is there a sign related to a specific person. It will require an analysis of the system of intraverbal person to clarify this situation. In any case, whether the auxiliary is *did*, *do*, or *does*, the manner of forming an interrogative appears to be identical.

- (3) the meaning expressed by inversion, namely the nonactualizing of the incidence of predicate to subject.

This is a good illustration of how meaning motivates syntax.

Questions with DO may be concerned with some condition or circumstance of the event and not its realization as such, as in:

When did he consult the dictionary?

Here it is not the fact of the event taking place in the past which is called into question but the particular moment in the past. Since the speaker's intended message calls for a specification of this moment, the incidence of event to subject is left unrealized, as indicated by the inversion. (Without inversion, of course, the result would be a subordinate clause, not a question.) Of interest here is the fact that although just one circumstance of the event is represented as undetermined, this suffices to keep the incidence of event to subject from being realized.

Such may not be the case in:

Who consulted the dictionary?

As Penhallurick (1985: 317) remarks: "Why do we not find *do* where the subject is questioned?" And, one might add, why is there no inversion? *Consulted*, being a finite verb, provides its event with event time and makes it incident both to a place in the past time-sphere and to a representation of person within the verb, thus endowing it with external incidence, which makes it seek support in a subject. Since there is no inversion here it appears that *consulted the dictionary* is made incident to *who*, which, being an interrogative pronoun, is incapable of designating any particular spatial entity. Although the extent to which the interrogative pronouns effect referential incidence remains to be clarified, we can see why DO is not required: there is no need to represent the event as virtual since nothing prevents making it incident to its place in time and in space by means of the morphogenesis of the simple form *consulted*. That is, it is the identity of the subject, how it can be specified in the intended message, which is being questioned here and not some modality of the event or intraverbal person and its relation with the subject.

There are, of course, numerous other ways of asking a question but the intent here is not to explore the field of interrogatives. For present needs, the point to be kept in mind is that thanks to the infinitive an event is represented as virtual, and thanks to DO it can be seen as actual in all respects except that which, in the speaker's experience, prompted the question. As such, DO provides a means of treating the virtuality of an event which is far more satisfying than that found in earlier stages of the language. For example, in the archaic *Comes the King tonight?* the event is represented in the indicative, and hence as really existing, before being hypothesized by leaving its incidence to the subject unrealized.<sup>28</sup> One can see from this that DO came

<sup>28</sup> Notice that this way of expressing interrogation with full verbs is still found in French, but only with the intraverbal pronouns: *Viens-tu?* mais *\*Vient le roi?* Even with auxiliary verbs, French inverts only with intraverbal pronouns, whereas English inverts any subject and auxiliary in interrogatives.

into use in questions not to “avoid the inconvenience of the old verb-inversion” (Sweet, 1898: II, 90) or because “grammatical factors require an auxiliary” (Langacker, 1982: 296) or merely as “a ‘bearer’ ... of tense-coding” (cf. Ard, 1982: 447) but because it provided the answer to a problem of representation posed by interrogative sentences: the incongruity of first representing an event in the indicative as real and then hypothesizing it. DO was introduced to represent the conditions of actualization of an event – its place in space and in time – and the means of effecting its external incidence, separately from the event itself, which can then be represented as virtual by means of the infinitive.

These remarks will suffice to suggest how DO functions as an operator of incidence to the subject. We must now examine how it functions as a support.

#### 4.3. *A meaningful support in negative contexts*

Negative sentences declare something, and in this respect differ from interrogative sentences but resemble positive sentences. Thus a sentence like:

Eric did not consult the dictionary.

makes a negative event incident to the subject. Whatever is to be negated must first be represented, and here a problem similar to that of interrogatives arises: how to represent an event in order to negate it. To avoid the conflicting impressions involved in representing an event in the indicative in terms of reality and then declaring its nonreality by negating it, English resorts to DO + infinitive. The infinitive permits the speaker to represent the event as merely virtual, with both options open – actualization/nonactualization. This in fact captures better the impressions arising from the experience to be expressed because “a denial ... is always a response to an implied possibility” (Reid, 1991: 10). Thanks to NOT the event’s nonactualization option is attributed by DO to the subject.

As in the case of interrogatives, it is only fairly recently that this incongruity between representing something as really existing and then negating this existence has been refused in English. In EMnE we often find the event to be negated first situated in the real time of the indicative, as in *And the light shineth in darkness, and the darkness comprehended it not* (John 1, 5; AV). Less frequently (cf. Jespersen, 1954: V, 428) one finds *not* preposed: *It not belongs to you* (Abbott, 1870: 216).

Even in contemporary English there are cases where NOT intervenes between subject and verb without the use of DO. One such case provides an excellent test for the explanation just proposed.

It is important that he not stay beyond the end of the month. (Quirk et al., 1985: 777)

Here it is the fact that the verb is in the subjunctive which permits negation without the auxiliary. In this mood a verb takes a subject (unlike verbs in the quasi-nominal mood) but it has no reference to the present (unlike verbs in the indicative) because

in the subjunctive no distinction between past and non-past is made. Even though it is incident to the subject, then, the event can be seen only as a possibility, not as a reality, because it cannot be referred to the present. It is this which makes DO optional here:<sup>29</sup> there is no discrepancy in using *not* to deny the reality of an event which is represented as a mere possibility.

In the light of the explanation concerning negation just presented, the difference between an interrogative sentence with DO which keeps the event virtual, and a negative sentence which declares the event's nonactualization, appears to arise from whether or not the operation of incidence relating the predicate to the subject is carried out. In the case of interrogatives, the incidence remains possible but is not effected, whereas in the case of negatives (and of positive sentences) it is effected so that the verb and all that is incident to it is predicated of the subject.

From this point of view, it is of interest to examine negative questions like:

Did you not consult a dictionary?

According to Quirk et al. (1985: 808), "Negative questions are always conducive", i.e. "indicate that the speaker is predisposed to the kind of answer he has wanted or expected". This orientation appears to arise as a result of both the negative and the interrogative syntactic processes just described. The incidence of *not* to the verb before it is made incident to its place in time and in space leaves only the negative alternative available, but this alternative is not made incident to the subject, as the subject/finite verb inversion indicates. As a consequence, the nonactualization of the event, left prospective, is not declared but merely suggested as a "negative orientation". The variations of this type of sentence have yet to be explored in detail.

One such variation deserves mention here, namely the position and form of NOT. In its full form, *not*, it generally follows the subject as in the above example, but as a contracted form it precedes the subject:

Didn't you consult a dictionary?

Although the distinction between the two is often described as one of style or register rather than one of meaning,<sup>30</sup> Quirk et al. (1985: 810) points out that there is a difference in meaning "If the subject is or contains a quantifier", as in:

Does anyone not know the answer?

Doesn't anyone know the answer?

<sup>29</sup> DO can occur in the subjunctive: *Yet the motion that the Speaker do not leave the chair had got to be repeated.* (Poutsma, 1928: II,101).

<sup>30</sup> A notable exception is found in Tobin (1995), where it is argued (cf. pp. 154–177) that the contracted form is related to an impression of unity and togetherness, the full form, *do not*, to an impression of disunity, separateness. It is not clear how this explanation could be applied to the meaning distinction observed by Quirk et al. in the next examples.



With the full form *not*, the above question evokes the possibility whether ‘not-knowing’ can be attributed to someone in the group addressed: ‘Is there anyone who does not know the answer?’ i.e. ‘Can not-knowing be predicated of even one person?’ With the contracted form, on the other hand, the question evokes the possibility whether ‘knowing’ can be predicated of even one person, with the suggestion that it probably cannot: ‘Isn’t there anyone who knows the answer?’ i.e. ‘Can knowing not be predicated of even one person?’ The interesting point here is that with *not* immediately preceding the infinitive, the infinitive event is negated. That is, it would appear that *not* is made incident to the lexical meaning of the infinitive, resulting in the notion ‘not-know’, or ‘ignore’. On the other hand, when NOT is attached to the auxiliary as *-n’t*, it is not the infinitive event which is negated. In this case, what is the negative element incident to? In view of its position as a clitic, it would appear to negate something in DO.

The most obvious candidate would seem to be the residual lexical meaning of DO, the moment of duration, but would this make any sense? It would imply that the moment of duration, which occupies the present in the above example, cannot provide a place in time for the event ‘know the answer’. It is as though the ‘duration-in-real-time’ expressed by DO were negated as a support for the event, thereby expressing its nonactualization. Thus although nothing is actually made incident to the subject (this is a question) it is ‘the nonexistence of knowing the answer’ option which is evoked as predicable by the use of the clitic. This is to be contrasted with ‘the existence of not-knowing the answer’, which is precisely what the verb with *not* preceding the infinitive is ready to predicate of the subject. *Not* incident to the lexeme of *know*, *n’t* incident to the residual lexeme of *does* – such a hypothesis would thus distinguish between the two sentences in terms of the syntactic processes involved and explain the noticeable difference of resulting meaning.

The same hypothesis will also permit us to understand the occasional use of two negators in the same verb:

She didn’t not like them. [‘She didn’t dislike them.’] (Quirk et al., 1985: 798)

Because NOT intervenes in two different ways, the sentence declares the nonexistence of not-liking (which is, of course, not quite the same thing as declaring the existence of liking). Without some distinction between the different possible ways NOT can be incident to the verb, it would be difficult to explain why its repetition is meaningful in such cases. Thus it seems that NOT can be incident either to the auxiliary or to the infinitive and so either refuse the event a place in time or give rise to a nonevent which is provided its place in time. Again it appears that the verb either denies actualization or affirms nonactualization, depending on the support to which NOT is incident. The case of double negatives thus supports the hypothesis concerning *not* and *n’t* proposed for the questions examined above, but before the hypothesis can be seriously entertained much more evidence in the form of contexts with a clear difference of sentence meaning will have to be found and examined.

In the great majority of cases, however, there is no clear distinction in sentence meaning between full and contracted NOT. Does this indicate that incidence to the

auxiliary can be expressed by both *not* and *n't* and that the distinction in the sign in such cases is not significant? Most grammarians consider the difference to be one of style (formal/informal) but this may imply simply that the difference of meaning is so slight as to be negligible. Even a seemingly negligible nuance of meaning, however, calls for an explanation in terms of the operative syntax producing it.

Ultimately the hypothesis proposed raises the question of the nature of NOT itself which permits it to intervene so readily in the syntax of the verb. The use of NOT with auxiliary verbs, either as a clitic or not, is a question which will have to be examined to bring out the implications of the hypothesis proposed here, but would carry us far beyond the use of DO and so cannot be followed up here.<sup>31</sup> From what has been said, however, enough of the mechanism of negation has been clarified to show that the role of DO in negative contexts is quite similar to that in interrogative contexts: offering the virtual event imported by the infinitive a support in 'real' time and the means for making it incident to the subject. Again it seems clear that DO is used, not because of some syntactic constraint, but because of the actualizing effect of the support in space and time its meaning provides.

#### 4.4. *A meaningful support in positive contexts*

It is in positive uses that the role of DO should appear most clearly since such contexts provide comparisons most closely approximating minimal pairs, DO here being accompanied by neither a particular syntactic condition (inversion) nor a particular lexical element (NOT). On the other hand, DO is restricted to its stressed version in usage according to grammarians, who, as a consequence, often characterize its meaning here as emphasis, as "emphatic affirmation" in Bolinger's words (1977a: 192). An examination of diverse uses in the light of the meaning proposed for DO will permit us not only to account for this restriction and the expressive effect of 'emphasis', but also to put to its most demanding test the residual meaning hypothesis whereby DO represents a stretch of duration for the event to be actualized in.

In positive uses DO is often characterized as countering a preceding negation, stated or implied, resulting in a "contrastive meaning" (Quirk et al., 1985: 124), as in:

You should listen to your mother. But I DO listen to her.

Erades (1975: 163) describes some other expressive effects that can arise:

"[DO] is used to express some comparison, contrast or opposition with respect to what has been said before, for instance true *versus* false, actual *vs.* potential, apparent *vs.* real, indubitable *vs.* questionable, conditional *vs.* absolute, negative *vs.* positive or affirmative, present *vs.* past or future, and many more of the like, impossible to enumerate exhaustively."

<sup>31</sup> This includes points such as the possibilities of contraction: *\*amn't*, *\*mayn't*, *\*?shan't*, but *can't* and *cannot* and *can not*; distinctions such as *I may not # go* / *I may # not go*, which suggest that full NOT can be incident either to the auxiliary or the infinitive; the fact that *n't* is a fairly recent possibility in English (cf. Jespersen, 1954: V.428).

These observations provide a key for understanding the use of DO in positive contexts because they suggest scenarios similar to those giving rise to interrogative and negative sentences. In all situations involving comparison, contrast, opposition and the like, the speaker is confronted with a double alternative, only one of which can actually be realized. As a consequence, to capture this dual possibility the speaker represents the event by means of the infinitive as virtual, as open to either alternative. DO as always provides a stretch of duration for situating (a moment of) the virtual event in a time-sphere of the indicative. There is no negator here to inhibit the operation of incidence within the compound verb so the infinitive event becomes incident to the stretch of duration and to the person provided by the auxiliary; there is no inversion here to suspend incidence to the external support so the positive event is predicated of the subject. As a consequence, the sentence expresses the positive alternative evoked by the infinitive.

The effect of emphasis arises from the contrast with the negative background of the statement. The fact that any other auxiliary verb can be stressed to bring out contrast (cf. Quirk et al., 1985: 1371) indicates clearly that the expression of emphasis is not a defining characteristic of DO in positive uses but the consequence of it being used to actualize one alternative. Thus if DO does not normally appear in positive uses without some stress, this would appear to be due to the contrastive context: to counter an implicit or explicit negation, opposition, contrast, etc., the positive possibility must be affirmed, and stressing is the most usual means of doing so. Without stress, DO would evoke no contrast and so would express nothing different from the simple form of the verb without nuclear stress.

The best way to test this explanation would be to compare minimal pairs, i.e. examples that can be read with or without stress on DO. Although common in Early Modern English, uses like the following, where DO has less stress than the infinitive, are definitely archaic today:

Thoughts that do often lie too deep for tears (Jespersen, 1954: V, 506)

The reasons for this historical development are not yet clear. In similar fashion, Quirk et al. (1985: 134) considers examples like the following from contemporary legal usage to be archaic because DO does not have dominant stress:

I, the undersigned, being of sound mind, do this day hereby bequeath ...

On the other hand, the degree of stress required by DO in positive uses today is not necessarily greater than that of the infinitive, according to some scholars. Thus to a question *Do you like it?*, Bolinger (1977b: 5) points out that one might, after a moment's hesitation, reply *By gosh, it's true! I do like it!* The dominant stress of DO here contrasts with its degree of stress in, say, *Of course I do*, an example of what Sweet (1989: II, 92) calls "remains of the earlier unemphatic affirmative *do*-forms". Nevalainen and Rissanen (1985) point out that the London-Lund Corpus provides several cases of nonstressed DO in positive contexts. Although there appears to be nothing resembling the phonetic reduction of DO found in some unstressed negative

and interrogative uses (cf. *I dunno. What's he want?*), these observations do suggest that we cannot dismiss all such cases as archaic without further investigation.

In the light of these considerations, a spoken example like the following, where DO does not have greater stress than the infinitive, may provide evidence:

I, Ronald Reagan, do solemnly swear that ...

Here there is no suggestion of one alternative as opposed to another; in fact, stressed DO here, which would have implied a contrary possibility giving rise to a suggestion of question or doubt, would have been quite out of place. The pertinent point here is that we can actually get a contrast in meaning between the stressed and nonstressed versions. That is to say, the only case of a minimal pair which has come to hand helps confirm the explanation presented above. It is interesting to note that both this example, which some might consider archaic, and the Quirk et al. example from legal usage involve performatives, a use made explicit by DO here: by providing the conditions for the actualization of the event, it singles out its realization by the subject within the present of speech. It is as though the speaker wishes to express greater awareness of what he is doing, to affirm the reality of his act, thereby giving an effect of solemnity, of an irrevocable pronouncement.<sup>32</sup>

Our explanation can also be tested by examining cases where the DO construction contrasts with the simple form:

Heather said she would be here at 'nine.

Heather 'said she would be here at nine.

Heather 'did say she would be here at nine.

The first sentence simply reports the past occurrence of the saying, which, not being called into question by some alternative possibility, is not represented as virtual. The second sentence, with stressed *said*, might well be heard some time after nine. It suggests, not a discussion of whether Heather said it or not, but a contrast between Heather's having promised to be here and her not being here. Again there is no suggestion of the saying not having been realized and so no need to represent it as virtual. The third sentence would arise when someone raises a doubt as to whether Heather really did say that. This double possibility, nonoccurrence/occurrence, is evoked by the virtualizing representation of the infinitive. Thanks to the DO construction, the actual occurrence of the saying is affirmed because the event is represented taking its place in the stretch of duration in real time provided by *did*. Thus what makes the DO construction different from the simple form is the capacity of the auxiliary to represent the event's place in time and space independently of repre-

<sup>32</sup> In connection with uses of unstressed DO in positive contexts, a comment from Sweet (1898: 89–90) is of interest: "This usage lasted longest with verbs of requesting – *I do entreat you* – and asserting – *I do assure you* ...". Both these examples involve performatives as well. Zandvoort (1957: 81) mentions another case of unstressed DO in Modern English in an affirmative sentence, but with inversion: *Well do I remember the day!*

senting the event. Here as elsewhere, then, DO occurs because the speaker has an impression that the reality of the happening he wants to talk about is somehow called into question, cannot be taken for granted.

Since the auxiliary can generally be omitted in positive sentences, the contribution of DO to the meaning can easily be checked, so it is worth examining a number of examples in context to see if the effect of contrast, of a double possibility, arises in all cases. This impression is often made explicit as in the following example cited in Joly and O'Kelly (1987: 100):<sup>33</sup>

- The US sees the Saudis as the immediate front-line policemen?
- Yes, I think that's the belief – it's not necessarily what America wants, but it [America] does feel that that seems to be the direction the Gulf states are taking ...

The impression of not “wanting” the situation is sufficient to raise the possibility of not believing (= feeling) it to be so and calls for the infinitive to represent the “feeling” as virtual. DO then situates the positive option of this virtual event in time and space, thus affirming it at the expense of the negative option.

In the next example, from the same source, the negative option is not expressed but merely implied:

Later, when she stepped into the boat on joining the water-party, she remarked to Ralph that she supposed he hated her and would like to drown her.

“Ah no,” said Ralph, “I keep my victims for a slower torture. And you'd be such an interesting one!”

“Well, you do torture me!”

The modal auxiliary *would* of *you'd be* implies that ‘you're not my victim and I do not torture you’, as Joly and O'Kelly point out. Ralph's remark thus suggests to the second speaker, *she*, a view conflicting with her own, giving rise to an intended message where the positive and negative options of *torture* arise. This calls for representing it as virtual by means of the infinitive and using DO to provide the conditions of actualization permitting the affirmation of the positive option.

In the following example, there is nothing in the context to suggest a negative option:

I was amused to see two young ones [girls] carrying bricks on a sort of a brancard at Moscow airport. A young buck, also supposed to be working, stole up behind the better looking and tickled her under the “oxters”. She gave a delighted squeal

<sup>33</sup> A number of examples will be borrowed from the excellent selection in this article. It should be pointed out, however, that the authors consider DO “fundamentally anaphoric” and base their explanation of usage largely on elements of textual cohesion. By contrast, the present study attempts to account for usage in terms of the speaker's intended message and the manner in which the DO + infinitive construction represents it.

and let the load tumble to the ground. So I surmise they do have sex in Russia also. (Joly and O'Kelly, 1987: 109)

The writer appears to be confronting the conclusion he draws from an incident observed at the airport with a commonly held view of a certain puritanism in Soviet Russia. DO + infinitive permits the speaker to evoke the double possibility and affirm the positive option as real.

The following passage is interesting because of the way positive DO is negated:

"And you really believe this pub talk?"

"As I said, when everybody gets the same idea, it's not always wrong."

"No. And it's usually not all right. I thought you'd got past listening to what people told you about me."

"I'm not saying I do believe it," she said primly. "But it's funny that your name should have been connected. There's no smoke without fire." (Joly and O'Kelly, 1987: 106)

Clearly the speaker has in mind the double option believing/not believing, and refuses to have her state of mind reduced to the positive option.

Such examples give the impression of a "presupposed negative" (Bolinger, 1977a: 193) in the speaker's mind, but sometimes the nuance is far more subtle. In the following example (Jespersen, 1954: V, 507), there is a suggestion of the speaker just discovering the reality of the event:

I suppose in England you would say we spoilt her. I suppose we did spoil her.

It seems as though the speaker is just realizing that the event actually took place and so represents it against the background of his former ignorance of it, or at least his not believing it. This nuance is not brought out if *did* is dropped (with stress falling on *suppose*), the expressive effect then being one of a lack of conviction, as though the speaker were not really sure that the spoiling took place. Similar comments apply to the following example, where one gets the impression that the speaker has just become aware of having actualized the event:

"My dear child, you certainly encouraged him." Isabel made for the moment as if to deny the charge; instead of which, however, she presently answered: "It's very true. I did encourage him." (Joly and O'Kelly, 1987: 106)

In some cases, the use of DO gives rise to an effect of infrequent occurrence, as in the following example from Jespersen (1954: V, 506):

He worked rapidly and well whenever he did work.

Perceiving the event as infrequent gives the writer the impression that its occurrence is unlikely, and this is sufficient to bring to mind the nonoccurrence alternative and

call for representing the event as virtual. If *did* were dropped here, a suggestion of infrequency would not arise without particular conditions of intonation and stress.

In the following example, the contrast is between occurrence/nonoccurrence at a given moment in the past:

the adroitness which had charmed and still did charm her. (Jespersen, 1954: V, 507)

By situating its infinitive at the same point in the past as *had*, *did* here counters the implication that the charming had gone on at some previous time but no longer existed at that point. Had the writer used the simple past *charmed* here instead of *did charm*, there would have been no such nuance of contrast but simply the suggestion that the charming had gone on up to the moment in time of *had* and continued through that moment.

These examples show that, as opposed to the simple form of the verb, DO + infinitive can bring out quite delicate expressive effects. This belies the claim that DO is used only “where an auxiliary is obligatory” and “is thus the ‘neutral’ or ‘empty’ auxiliary used only where the grammatical rules of English require an auxiliary” (Palmer, 1974: 25). The same is true of *does* in the following example, where the effect is to emphasize uncertainty about the place in time of the event:

“... But I’m in transit. Returning to the big city tonight – catching the boat for Athens when it does come in. Thought I’d come over and have a look at Mykonos and something to eat before we sail. That’s around ten, isn’t it?”  
“Give or take an hour. But I expect it will be fairly punctual tonight ...”  
(MacInnes, 1967: 258)

By representing the coming in as virtual the author suggests that for any given place in time the impression is ‘perhaps now/perhaps not now’. With a representation of duration as prospective, *does* accommodates this view, leaving undetermined the point in the non-past for the actualization of the event. Without the auxiliary, there would be no such suggestion of uncertainty.

In the following example, it is not uncertainty about a place in time which suggests the contrast, but uncertainty of the actual conditions under which the event took place:

“And in any case he wasn’t hanged. And,” said Wimsey, triumphantly, “we still don’t know how he did die.” (Sayers, 1972: 21)

The mere fact of not being able to reconstruct the event in his own mind, of not knowing how in fact *he* died, is enough to give the speaker the impression of something virtual and so calls for *did* to affirm its actualization. With the simple past *died*, the contrast would not be brought out and the speaker would hardly have a “triumphant” air.

A similar situation involving ignorance of the conditions of actualization is depicted in the following use cited by Jespersen (1954: V, 507), which provides a good test for any theory of DO:

How it faded no one exactly knew, but fade it did.

One gets the impression here that by evoking the event before the subject and the finite auxiliary the speaker wants to achieve a particular expressive effect: to emphasize the transition of the event from a state of virtuality to its actualization. This, of course, is quite feasible provided the event and its place in time are represented separately, as is argued here. Without the auxiliary, inversion would of course not be possible here.

Another use of DO in positive contexts arises in unexpected situations where the speaker is confronted with the double existential option. In the following case, this contrast between the expected and the real situation is made explicit:

Ann was surprised to discover that even in the midst of the acute pain she was suffering she did continue to think about Felix. (Penhallurick, 1985: 322)

As Penhallurick points out, "involved with surprise that an event took place is an expectation that it would not occur." Similarly, in:

The early rains have failed and it is difficult to be hopeful now about the main rains. Even if they do come in June and July, it seems that the population will need a lot of help at least for another twelve months. (Joly and O'Kelly, 1987: 108)

where the unlikelihood of the rains coming is highlighted by the DO + infinitive phrase (itself presented as hypothetical by the *if*-clause). In neither of these cases would the simple form bring out the unexpectedness as forcefully.

According to Osselson (1983: 471), in some cases "the *do* construction may even be the sole device for alerting the reader to some intended contrast". Thus in examples like:

You do look pale this morning.

it seems to be the unexpectedness of the situation which leads the speaker to represent the event as virtual by means of the infinitive. As Peter Enns (private communication) points out, a sentence like this might also be the expression of "taking a second look" to confirm a first impression, thus bringing out the surprise engendered by discovering the subject's unusual condition. Compared with the simple form here (*you look*), which would tend to minimize the speaker's reaction, DO witnesses to greater sympathy thus giving rise to what Quirk et al. (1985: 1415) calls "emotive emphasis". Joly and O'Kelly (1987: 109) give a somewhat similar example from a discussion about a TV program:



- We believe, Patty, that today marks the start of a new experiment.
- Yes absolutely. So we do hope people will tune in.

The suggestion here is that hopes are higher than usual, that the subject is hoping for more than the usual number of viewers.

This impression of contrast with what might normally be expected in a given situation appears to lie behind the following use, characterized by Bolinger (1982: 727) as “a favorite of airline stewardesses”:

The Captain does ask that you remain in your seats.

Again it is not a matter of “emphatically affirming” the asking but rather of indicating that making the request at this point may well run counter to the usual reaction of passengers to get up, and particularly of any individuals feeling that their special circumstances allow them to disregard the rules. The *does* implies that even such cases have been taken into account and the captain still makes the asking real. Without *does* the sentence would not have the ‘in spite of what you may feel’ nuance.

In a somewhat similar use, DO is stressed but does not “carry the nuclear force” of the verb phrase (Quirk et al., 1985: 1415):

I did TELL you.

Here the emotive effect is “something like reproach or petulance”, presumably because the person addressed did not accept the advice formerly given which would have avoided his or her present predicament. That is, although the present situation may seem to suggest the contrary, the fact remains that the telling was really carried out, a double alternative which calls for representing the telling as a virtuality and then declaring its actualization. The following example, presumably the beginning of a telephone conversation, is somewhat similar in nuance:

“Charlotte. Helen.”

“Hello.”

“At last, at last. I did leave a message at your house yesterday and they said they’d written it down but ...” (Cited in Nevalainen and Rissanen (1985: 42) from the London-Lund Corpus<sup>34</sup>)

The suggestion is that notwithstanding contrary appearances – the delay in our communicating – the leaving of the message was in reality carried out.

This “*do* of implicit contrast”, as Osselton calls it, gives rise to a quite different nuance in the following example from the London-Lund Corpus:

... and the other thing that I did want to to point out you know is is this ... (ibid.)

<sup>34</sup> Prosodic markings are not reproduced here for examples from this corpus; punctuation is mine.

Nevalainen and Rissanen, who examined the 358 instances of DO in positive statements in this corpus, found that in uses like this one:

“the main function of DO seems to be to underline the relevance of the contribution made and, in this way, to connect it with the discourse topic. In many cases, the motivation for DO seems to be the speaker’s wish to avoid incoherence or abruptness which unfavourably affect the flow of discourse.” (*ibid.*: 43)

Here the aim seems to be to add a new item to the conversation, as though the person addressed were on the point of leaving or otherwise ending the conversation, so the speaker’s impression is one of making his point in spite of the situation. In this use, the speaker, aware that the person addressed does not know of the existence of the *wanting*, calls on the infinitive to evoke as possible both this (presumed) inexistence and its existence in his own eyes, DO then situating this latter option in time. Combined with the use of the past tense for politeness, the resulting effect here is, curiously, one of hesitancy rather than emphatic affirmation. The following is an example of the same sort and gives rise to an equally subtle nuance:

Mr Colin Hodgkinson may be preparing for our future. Incidentally I did once know a man who lived on grass. (*ibid.*: 37)

Here the impression of a possible nonsequitur in the conversation suffices to call to mind that the person addressed is quite unaware of *knowing a man who ...* DO + infinitive permits the speaker to acknowledge this and yet declare the reality of the knowing, to take into account the conversational situation and introduce a new topic.

The last positive use of DO to be examined here is found in imperatives:

Do sit down.

According to Quirk et al. (1985: 833) *do* here “reinforces the positive sense of the imperative” to make it “more persuasive or insistent”. It should, however, be pointed out that the auxiliary would not be used with an emphatic imperative, when it has the force of a command or a warning, only when it expresses an invitation, an offer and the like. This distinction is revealing here because it involves differentiating between imposing a course of action on the person addressed and persuading the person to adopt one possible course of action, as in:

Sit down!/Do sit down.

Be careful!/Do be careful.

Without DO, whether through authority or in an emergency, a single course of action is envisaged and the person addressed is left no alternative. This is the way a command would be formulated in a military situation or in sudden danger. With “persuasive” *do*, on the other hand, the course of action proposed is presented as one alternative and the imperative is an appeal to the person addressed to opt for it, rather than the contrary alternative. As Bolinger points out (1977a: 194), “*do* is acceptable

when the circumstances allow for a prior stage of non-doing". Representing the carrying out of the event from this prior stage as virtual by means of the infinitive leaves the double alternative open (to sit down or not, to be careful or not); it is *do* which provides the necessary condition, a place in time, for the positive alternative to be actualized.

The imperative uses of DO differ from the other positive uses discussed above in that they do not declare the actualization of the event. In this they resemble a number of uses of the simple form (including imperative uses) characterized as "prospective":<sup>35</sup> they represent a happening as prospective by providing a view of its event time before the subject has actualized any of it. This brings out the fact that DO, like other verbs in the indicative, can represent its stretch of time as real, dynamic (metaphase) or stative (monophase), and as prospective. That is to say, DO auxiliary is in all grammatical respects a verb and need not be considered "idiosyncratic" in its imperative uses and distinct from "periphrastic" DO (Warner, 1993: 90). The fact that it is the only auxiliary commonly found in the imperative is a consequence of its evoking a stretch of duration from a prior position, the only position from which an imperative can be imagined. It remains, however, to explain why imperative *do* cannot take a subject whereas imperative *don't* can take a postposed subject (cf. Warner, 1993: 89).

## 5. Conclusion

An important point concerning the very nature of DO is brought out by Quirk et al. (1985: 1415) in speaking of the last uses discussed: "the imperative *do* does not obey the rule of do-support". That is to say, "neither *do* nor *don't* in imperatives fulfils the strict conditions of *do*-support ...; they are not introduced to make good the lack of an operator, but indeed are added to the front of an operator if one is present" (Quirk et al., 1985: 833). Thus in the last example, DO situates the copula in time, and can even situate another auxiliary:

Don't be drinking wine when he calls.

Don't be frightened by that noise. (Quirk et al., 1985: 134)

Please, Neale, don't have read it yet! (Bolinger, 1977a: 169)<sup>36</sup>

The significance of this observation is that the support theory to explain the use of DO as a "dummy operator" fails here. The same observation applies to DO in the "quasi-imperative *Why don't you* construction" (Quirk et al., 1985: 833):

Why don't you be more careful?

and in a similar use sometimes found in *if*-clauses (cf. Palmer, 1974: 153):

<sup>35</sup> See Hirtle (1995) for a discussion of this manner of representing the duration of an event.

<sup>36</sup> The context for this example is too lengthy to repeat here.

If you don't be more careful, you will ruin it.

If I don't be there by morning. (Title of a song written by Bob Dylan)

On the other hand, the explanation put forward in the present study applies just as well here as in all other uses: BE and HAVE, occurring ~~an~~ infinitives here, find in DO a support providing a determined place in time and space. That is to say, besides a particular person, *do* offers a prospective stretch of time as the place in the non-past for the actualization/nonactualization of the event, whether it be an event in the offing (*be there, be careful, be frightened*), an event already under way (*be drinking*) or the result phase of an accomplished event (*have read*). DO itself cannot seek support in another auxiliary because, as we have seen, it has no quasi-nominal forms due to its residual lexical meaning.

As Quirk et al. makes clear, such cases clearly manifest the inadequacy of the traditional explanation of DO. The same can be said for the occasional case of DO auxiliary where there is no infinitive. For example, when intercepting someone, one might say:

Oh no you don't!

Here DO can almost be seen as a performative since the expression would normally be accompanied by some act to prevent the person addressed actualizing the undesired action. Again, to get someone to stop doing something, it is common to say simply:

Don't!

If indeed DO is a "dummy support", one cannot but wonder why it appears when there is no infinitive event to be supported, because if DO itself expresses nothing there is nothing to be negated. From the point of view of the explanation presented here, however, the role of DO is clear: to provide a representation of the stretch of time in which the undesired action is to take place so that this stretch can be negated, thereby eliminating a necessary condition for realizing the imminent unnamed action which both speaker and listener have in mind.

The traditional hypothesis does not account for such uses, but perhaps the most telling evidence against it arises in the examples discussed in the preceding section on positive contexts, where the use of DO is optional and so can hardly be the consequence of some binding grammatical rule or constraining context. If indeed DO is a "dummy", then its use should have no effect on the meaning of the sentence. And yet, as we have seen, it was clear in every case where the use of the auxiliary can be contrasted with its nonuse that DO + infinitive was used to bring out a particular expressive nuance, often, but by no means always, emphasizing one option as opposed to another. It was shown that the meaning of DO giving rise to these expressive effects is the same as that underlying its uses in negative and interrogative sentences. That is, DO + infinitive is a means instituted in tongue for representing our experience of happenings when there is an impression that their actualization is somehow called into question.

On the assumption that DO is a word, we have been able to discern its meaning as the condition permitting it to operate as a support. Its residual lexical matter – a space of time to be filled with an event – is so abstract that DO by itself cannot predicate anything. It belongs, therefore, to the nonpredicative parts of speech, whose main role is to provide for certain operations inherent in the construction of the sentence. Being so abstract, this lexical matter can be seen to be, like any other abstract lexeme, the result of a long historical process of dematerialization. In usage, however, it appears to arise from an extremely early interception of the process of ideogenesis, before the lexeme of the full verb arises.

Through morphogenesis the systems of voice and aspect provide this abstract lexeme of DO with the forms necessary for any event, and this is then conjugated through the systems of mood, tense and person to constitute a verb. That is, there remains enough on the lexical side to constitute matter calling for grammatical categorizing as a verb. The fact that DO cannot be conjugated in the nonfinite forms arises from an incompatibility with these forms, particularly insofar as the situating of an event in space and time is concerned, because as an operator the role of DO is to provide a place for the event in relation to the *hic et nunc* of the speaker (in space through person, in time through tense). That is, DO represents the conditions for actualizing the event, conditions which the nonfinite forms cannot provide. By the same token, DO requires, as a lexical refill, an event represented with none of these conditions realized, hence one represented in the form of the infinitive.

The infinitive, as Duffley (1992) has made abundantly clear, provides a view of the event as virtual. Through its morphogenesis it depicts the event's place in space and in time as undetermined, and its event time as to be actualized. DO provides the conditions for actualizing it by offering a stretch of time with a determined place in space (person) and in time (tense). The whole point of DO + infinitive as a verb is, as we have seen in some detail, precisely this: to represent both an event seen, for one reason or another, as virtual and the conditions required to actualize it. It is the meaning of DO, both lexical and grammatical, which provides these conditions, this support, with the result that the event takes on the tense and the person of DO, a sort of "symbiosis" of grammatical forms which appears to bind the two into a compound verb. A like analysis may well be applicable, *mutatis mutandis*, to the other auxiliaries and thus provide a basis for understanding the nature of compound verbs.

The ability of DO as an operator to establish the incidence of the predicate to its external support in the subject is shared by the other auxiliaries, and in fact by any finite verb. This capacity to transport meaning to an external support through external incidence is one of the defining characteristics of the verb as a part of speech. Our analysis of DO has shown that this ability, exercised in positive sentences, which express the actualization of the incidence of predicate to subject, is also present in interrogative sentences, which express the possibility of external incidence and even in negative sentences which deny its actualization. This ability to express the possibility and the negation of external incidence is characteristic of auxiliaries and distinguishes them from simple finite verbs, which can express external incidence only as actualized. Thus the notion of an auxiliary representing a stretch of duration independently of the event's representation offers an explanation of its use

in interrogative and negative sentences and provides a basis for exploring the difference between simple and compound verbs in terms of the verb's potential for external incidence, its capacity to establish a relation between predicate and subject.

As Guillaume points out (1984: 22) the "confrontation with fact is the critical moment for a theory". The theory that DO is a word with its own meaning can confront the facts of usage and provide an explanation for them. It does, then, give still another illustration of the principle that we can analyze and explain syntax only to the extent that we have analyzed and explained the meaning of the words that give rise to the syntax. This principle has helped to deepen our understanding of DO and provided a basis for analyzing the other auxiliaries. On a more general level, it bears out the premise of the theory of language underlying this analysis, namely, that language is a mechanism for representing and expressing what the speaker has in mind by means of words and the relationships established between them. Most important, however, it confirms the primordial role of words as "the fundamental units of human language" and helps us to understand why words are necessary for absolutely every act of speech any human being may undertake (cf. Hirtle, 1993). It follows that no serious theory of language can afford to neglect the word and that a meaningless word is a linguistic impossibility.

## References

- Abbott, E.A., 1870/1966. *A Shakespearian Grammar*, New York, Dover Publications.
- Adamczewski, H., 1975. Esquisse d'une théorie de DO. In: *Linguistic insights in applied linguistics* 5, 47–66. Brussels: AIMAV.
- Ard, Josh, 1982. Auxiliary *do*: Support or emphasis? *Linguistics* 20, 445–466.
- Bolinger, Dwight, 1977a. *Meaning and form*. London and New York: Longman.
- Bolinger, Dwight, 1977b. Free will and determinism in language: or, Who does the choosing, the grammar or the speaker? In: Margarita Suter (ed.), *Contemporary studies in Romance linguistics*, 1–17. Washington, DC, Georgetown University Press.
- Bolinger, Dwight, 1982. The network tone of voice: *Journal of Broadcasting* 26, 725–728.
- Chomsky, Noam, 1957. *Syntactic structures*. The Hague: Mouton.
- Comrie, Bernard, 1976. *Aspect*. Cambridge: Cambridge University Press.
- Duffley, Patrick, 1992. *The English infinitive*. London and New York: Longman.
- Erades, P.A., 1975. *Points of Modern English syntax*. Contributions to English Studies. Amsterdam: Swets & Zeitlinger.
- Falk, Yehuda N., 1984. The English auxiliary system: A lexical-functional analysis. *Language* 60(3), 483–509.
- Guillaume, Gustave, 1938/1964. *Théorie des auxiliaires et examen de faits connexes*. In: *Langage et science du langage*, 73–86. Paris: Librairie A.-G. Nizet and Québec: Presses de l'Université Laval.
- Guillaume, Gustave, 1984. *Foundations for a science of language*. Translated by Walter Hirtle and John Hewson. Amsterdam/Philadelphia: Benjamins.
- Guillaume, Gustave, 1991. *Leçons de linguistique de Gustave Guillaume 1944–1945 – Esquisse d'une grammaire descriptive de la langue française (III) et Sémantèmes, morphèmes et systèmes*. Eds. Roch Valin, Walter Hirtle and André Joly. Québec: Presses de l'Université Laval and Lille: Presses universitaires de Lille.
- Heine, Bernd, 1993. *Auxiliaries: Cognitive forces and grammaticalization*. New York and Oxford: Oxford University Press.
- Hewson, John, 1990. The auxiliary DO in English. *APLA* 12, 39–52.
- Hirtle, Walter, 1965. Auxiliaries and voice in English. *Les langues modernes* 59, 433–450.

- Hirtle, Walter, 1967. The simple and progressive forms. Québec: Presses de l'Université Laval.
- Hirtle, Walter, 1975. Time, aspect and the verb. Québec: Presses de l'Université Laval.
- Hirtle, Walter, 1984. L'accord en anglais et l'incidence du verbe au sujet. *Modèles linguistiques* 6, 99–108.
- Hirtle, Walter, 1987. Events, time and the simple form. *Revue québécoise de linguistique* 17, 85–106.
- Hirtle, Walter, 1993. The word: Why? In: André Crochetière, Jean-Claude Boulanger and Conrad Ouelon (eds.), *Proceedings of the XVth International Congress of Linguists*, Vol. 1: 47–58. Sainte-Foy: Presses de l'Université Laval.
- Hirtle, Walter, 1994. Meaning and referent: For a linguistic approach. *Word* 45, 103–117.
- Hirtle, Walter, 1995. The simple form again. *Journal of Pragmatics* 24, 265–281.
- Hirtle, Walter and Violetta Curat, 1986. The simple and the progressive: 'Future' use. *Transactions of the Philological Society* 42–83.
- Hirtle, Walter and Claude Bégin, 1991. Can the progressive express a state? *Langues et linguistique* 17, 99–137.
- Jespersen, Otto, 1924. *The philosophy of grammar*. London: George Allen & Unwin. 1954. *A Modern English grammar on historical principles*. London: George Allen & Unwin; Copenhagen: Ejnar Munksgaard.
- Joly, André and Dairine O'Kelly, 1987. Cohésion discursive et argumentation: *DO* dit 'emphatique' en anglais contemporain. *Modèles linguistiques* 9, 93–111.
- Joos, Martin, 1964. *The English verb. Form and meanings*. Madison, WI: University of Wisconsin Press.
- Korrel, Lia, 1991. *Duration in English*. Berlin/New York: Mouton de Gruyter.
- Kruisinga, E., 1931. *A handbook of present-day English*. 5th ed., II, 1. Groningen: Noordhoff.
- Langacker, Ronald W., 1982. Remarks on English Aspect. In: P.J. Hopper (ed.), *Tense and aspect*, 265–304. Amsterdam: Benjamins.
- Langacker, Ronald W., 1982a. Space grammar, analysability, and the English passive. *Language* 58(1), 22–80.
- Langacker, Ronald W., 1987. *Foundations of cognitive grammar*. Vol. 1: Theoretical prerequisites. Stanford, CA: Stanford University Press.
- Langacker, Ronald W., 1991. *Foundations of cognitive grammar*. Vol. 2: Descriptive application. Stanford, CA: Stanford University Press.
- MacInnes, Helen, 19678. *The double image*. New York: Fawcett Crest.
- Matthews, P.H., 1981. *Syntax*. Cambridge: Cambridge University Press.
- Miller, George A., 1991. *The science of words*. New York: Scientific American Library.
- Nevalainen, Teittu and Matti Rissanen, 1985. DO you support the DO-support? Emphatic and non-emphatic DO in affirmative statements in present-day spoken English. In: Sven Jacobson (ed.), *Papers from the 3rd Scandinavian Symposium on Syntactic Variation (Stockholm Studies in English 65)*, 35–50. Stockholm: Almqvist and Wiksell.
- Newmeyer, Frederick J., 1990. Functional explanation in linguistics and the origins of language. *Language and Communication* 11, 3–28.
- Ossleton, N.E., 1983. Points of Modern English syntax. LXV, 200. *English Studies* 64, 469–472.
- Palmer, F.R., 1974. *The English verb*. London: Longman.
- Penhallurick, John, 1985. The semantics of auxiliary DO. *Studies in Linguistics* 9, 311–333.
- Penhallurick, John, 1987. The semantics of auxiliary inversion in English. *Australian Journal of Linguistics* 7, 97–128.
- Poutsma, H., 1928. *A grammar of Late Modern English*. Part 1, Section 1. Groningen: Noordhoff.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik, 1985. *A comprehensive grammar of the English language*. London and New York: Longman.
- Reid, Wallis, 1991. *Verb and noun number in English. A functional explanation*. London: Longman.
- Sayers, D.L., 1972. *The nine tailors*. London: New English Library, Times Mirror.
- Sweet, Henry, 1898/1958. *A new English grammar logical and historical*. Oxford: Clarendon Press.
- Tobin, Yishai, 1993. *Aspect in the English verb: Process and result in language*. London and New York: Longman.
- Tobin, Yishai, 1995. *Invariance, markedness and distinctive feature analysis*. Amsterdam/Philadelphia: Benjamins.

- Valin, Roch, 1981. *Perspectives psychomécaniques sur la syntaxe*. Québec: Presses de l'Université Laval.
- Warner, Anthony R., 1993. *English auxiliaries: Structure and history* (Cambridge Studies in Linguistics 66). Cambridge: Cambridge University Press.
- Zandvoort, R.W., 1957. *A handbook of English grammar*. London: Longmans Green.