

## *Wh-* words and the infinitive in English

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### Abstract

This paper proposes an explanation, in exclusively semantic terms, of the distribution of the infinitive form of the verb when used with *wh-* words in contemporary English in both independent and subordinate clauses. The explanation proposed is based on the meaning of the infinitive, the meaning of *to* and the pragmatic implications of the meanings of the *wh-* words as regards the existence of what they refer to. The method followed shows that linguistic semantics can contribute in a significant way to the explanation of what would appear to be mere distributional or syntactic facts.

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### 1. Distribution

The pattern generally given for *wh-* words + infinitive in independent clauses is as follows (cf. Wierzbicka, 1988: 28; Quirk et al., 1985: 840; Visser, 1966: 1045; Jespersen, 1940: 324–325):

- (1a) When to give a bribe
- (1b) Where to give a bribe
- (1c) How to give a bribe
- (1d) What to give as a bribe
- (1e) Why give a bribe?

The first problem with this distribution is that it is incomplete. As pointed out by Bolinger (1957: 135), one can use the bare infinitive with *how*, *where* and *when* in interrogative contexts:

- (2a) How tell the difference?
- (2b) Where expect any better treatment?
- (2c) When prepare for what will never come?

In addition, the *to* + infinitive construction can also occur in clauses with interrogative force:

- (3a) How to explain such a thing?
- (3b) What to do?
- (3c) Where to turn? (ibid.: 136)

Furthermore, our survey of usage has brought to light attested examples of the structure *why* + *to* + infinitive in affirmative usage. The full distribution of *wh*- word + infinitive constructions in independent clauses would thus look like this:

(4) The full pattern of distribution in independent clauses

<i>to</i> + infinitive	Bare infinitive
<i>Affirmative</i>	
When to give a bribe	—
Where to give a bribe	—
How to give a bribe	—
What to give as a bribe	—
Why to give a bribe	—
<i>Interrogative</i>	
When to give a bribe?	When give a bribe?
Where to give a bribe?	Where give a bribe?
How to give a bribe?	How give a bribe?
What to give as a bribe?	What give as a bribe?
???	Why give a bribe?

This distribution raises a number of questions. First of all, given the fact that both infinitival constructions are possible in the interrogative, why does one find only the *to* + infinitive construction in the affirmative? Secondly, is there any difference in meaning which would justify the use of both constructions in utterances with interrogative force, or are they merely in free variation? In addition, why is *to* + infinitive not attested after *why* in interrogatives? And, what is the relation of the traditionally-given distribution to the full pattern shown above?

These questions are compounded when one brings the subordinate-clause uses of infinitival *wh*- constructions into the picture (cf. Quirk et al., 1985: 1171). The distribution found here is that of the affirmative, even though such *wh*- clauses are treated as 'indirect interrogatives':

(5) Distribution of infinitival *wh*- subordinate clauses

<i>to</i> + infinitive	Bare infinitive
I asked them when to give a bribe.	—
I asked them where to give a bribe.	—
I asked them how to give a bribe.	—
I asked them what to give as a bribe.	—
I asked them why to give a bribe.	—

If these contexts are really interrogative, why is it not possible to use both constructions of the infinitive here as in independent clauses?

The goal of this paper will be to attempt to answer all of these questions using a strictly semantic approach to syntax which will work with the following three parameters: the meaning of the infinitive form, the meaning of *to* and the manner in which the *wh*- word is conceived by the speaker in a given context as regards the existence of its referent. This approach will be speaker- and not hearer-based, since it is the way in which the speaker construes the situation which determines the way he expresses it.

## 2. The infinitive: *To* vs. $\emptyset$

In order to set the stage for the discussion of the *wh*- words, the meanings of the two infinitive constructions found with them must first be described. That the distinction between these two constructions is a matter of meaning can be seen by comparing the two sentences below, one of which contains the bare form, the other the infinitive preceded by *to*:

- (6a) I helped John finish his thesis.  
 (6b) I helped John to finish his thesis.

A number of authors have pointed out that these two constructions are not synonymous (Erades, 1950: 123; Wood, 1962: 107–108; Christophersen and Sandved, 1969: 149; Bolinger, 1974: 75; Gee, 1975: 311). Gee observes, for instance, that whereas in *I helped them carry the load*, the speaker takes part in the carrying, this is not necessarily the case in *I helped them to carry the load*, as seen by the possibility of (7a) as compared to the impossibility of (7b):

- (7a) I helped them to carry the load by having my secretary get them a cart.  
 (7b) \*I helped them carry the load by having my secretary get them a cart.

As argued in Duffley (1992: 28–29), the use of *to* has the effect of evoking the realization of the infinitive's event as being a consequence or result of the action of

helping. The helping itself is therefore represented in this case as a prior condition or circumstance enabling the person helped to carry out the action denoted by the infinitive, and so the type of assistance provided can be indirect, as in (7a). The bare infinitive construction, on the other hand, represents an event as an object of cooperation between the helper and the helpee, with the two agents conceived as being active at the same time.

The difference in import just described is due to the meaning of the preposition *to*, which evokes the infinitive's event as the end-point of a movement. Since the infinitive, being as it is a verb, denotes a temporal entity, the movement expressed by *to* in usage with the infinitive is understood to be a movement in time. Consequently, this sets up a temporal before-after relationship between the infinitive's event and the event expressed by the main verb. For (6b) above this before-after sequence could be depicted as in Fig. 1.

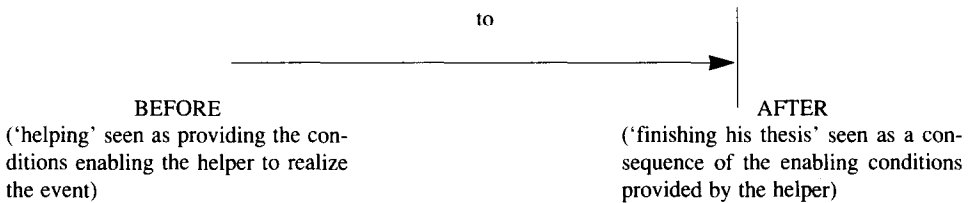


Fig. 1.

The relation of subsequence evoked by *to* is even clearer with verbs expressing the notion of desire, which because of their meaning can only be construed with *to* + infinitive. Thus, a sentence such as (8) *I wanted John to finish his thesis* can be diagrammed as in Fig. 2 (with a dotted arrow indicating non-realization of the movement denoted by *to*).

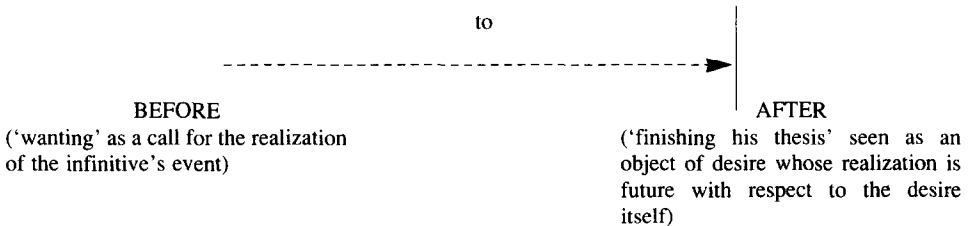


Fig. 2.

In the syntax of the uses with *help* and *want* with the *to* + infinitive construction discussed above, the before-after relation is instituted through the direct object of the main verb (*John*), which designates the actualizer<sup>1</sup> of the infinitive's event: the moment in time at which John is conceived as the patient of helping or wanting is represented as prior to that at which he actualized the finishing (in (6b)) or would have actualized it (in (8)). In other cases, the actualizer of the infinitive's event is designated by the subject of the main verb:

- (9) I managed to call three people.
- (10) I tried to call three people.

In such cases, the same before-after relation is present however: the moment in time at which 'I' is conceived as the agent of the managing or trying is represented as being prior to that at which 'I' actualized the event 'calling three people' (in (9)) or would have actualized it (in (10)).

When *to* is not used to introduce the infinitive, the relation described above (whereby the latter's event is the end-point of a movement in time of its actualizer from a before-position to an after-position) is not present. This occurs notably with the verbs of perception; one finds only the bare infinitive when these verbs are used in their perceptual sense:

- (11) I watched him call nine people.

Here it is impossible to conceive the actualizer of the infinitive's event ('him') as being the patient of the event 'watching someone call nine people' before the beginning of the calling occurs. The meaning of the sentence implies rather the simultaneous involvement of 'him' as agent of the calling and patient of the watching, and since this excludes any before-after relationship between two positions of the infinitive event's actualizer in time, *to* is not used here.

This is also the case in the uses where *help* is followed by the bare infinitive, as in (6a) above. Since *help* is conceived here as direct cooperation, the helper is represented as being active at the same time as the helpee, as working with the latter in the realization of the infinitive's event and not merely as providing favourable conditions enabling this event to take place.

The second important type of usage where the involvement of the actualizer of the infinitive event in another event is not felt to constitute a before-position with respect to the infinitive corresponds to modal auxiliary constructions. At first sight, the use of the bare infinitive with these verbs might appear to be a purely syntactic question of a class of verbs whose default complementation is with the bare infinitive. The case of the verbs *need* and *dare* shows however that the presence or absence of *to* obeys a semantic principle even here. In affirmative use, the existence

<sup>1</sup> *Actualizer* is used here as a hyponymic term which denotes both the traditional 'agent' of an action-like event as well as the 'undergoer' in a state-like event, the latter lacking any widely-acknowledged term to designate it.

of need or daring is asserted as a reality and is therefore felt to constitute a before-position with respect to the infinitive's event as something calling for (*need*) or leading to (*dare*) the latter's realization. Consequently, *to* must be used with the infinitive in this type of context:

(12) He needed to ask her a question.

(13) He dared to ask her a question.

When, however, the existence of daring or need is not asserted but denied or questioned, in some cases these verbs are no longer felt to evoke realities constituting before-positions with respect to the infinitive they are construed with. In these cases, *to* is no longer used to introduce their infinitival complement:

(14a) Need he find out?

(14b) He needn't find out.

(15a) Dare he ask her a question?

(15b) He dare not ask her a question.

The core modals resemble this second use of *dare* and *need*<sup>2</sup> not only morpho-syntactically – inversion in the interrogative, direct negation by *not*, absence of *-s* ending – but also semantically. As described by Langacker (1978: 869), these verbs do not situate a reality in time but rather a 'potentiality'. This potentiality is not felt to constitute a temporal before-position with respect to the infinitive's event since it is not conceived as a reality occupying a prior position in time with respect to this event but rather as defining the very relation of the infinitive's event with respect to reality. This explains why the modal auxiliaries are indifferent to whether the infinitive's event is contemporaneous or future with respect to the state of potentiality evoked by the modal:

(16a) You must know all this for the exam next week.

(16b) You have taken this course before. You must know all this already.

(17a) He may own a Mercedes by next year.

(17b) He may own a Mercedes. I'm not sure whether he does or not.

The absence of a before-position with respect to the infinitive's event explains the non-occurrence of *to* with these verbs also.<sup>3</sup>

<sup>2</sup> For a more detailed discussion of *dare* and *need*, see Duffley (1994).

<sup>3</sup> It might be argued as a counterexample to this claim that expressions such as *have to* and *be possible to* denote modal notions of necessity and possibility and yet are followed by the *to* plus infinitive construction. The verbal component of these expressions, however, does not evoke potentiality but rather reality – the notions of 'having' and 'being', respectively. The idea of necessity stems from the combination of the idea of 'having' (used without a direct object specifying that which is had) with the meaning of *to* (which presents the infinitive's event as prospective): this produces the notion of having something (some sort of obligation or constraint) calling for the realization of the infinitive's event. The idea of possibility evoked by *be possible to* is obviously due to the adjective *possible*, which the verb *be*

These considerations on the meaning of *to* and the significance of its absence having been made, we are now ready to turn to the case at hand: infinitival usage with *wh*- words. We will see that bare infinitive usage here is closely related to the impressions calling for it with the modal auxiliaries and with the modal uses of *dare* and *need*.

### 3. *Wh*- words + infinitive in independent clauses

#### 3.1. Affirmative contexts

The only construction found in affirmative contexts is that with *to*. We will first of all propose an explanation for attested usage and will come back later to the problem of accounting for the bare infinitive's not being found here after discussing contexts where it does occur, i.e. in the interrogative.

Perhaps the most widespread representative of *wh*- word + *to* + infinitive constructions is *how* + *to* + infinitive. The number of 'how to' books in any library is usually quite large. Here are two examples:

- (18) How to win an election: the complete practical guide to organizing and winning any election campaign (Gargrave, 1979)
- (19) How to read Donald Duck: imperialist ideology in the Disney comic (Ariel et al., 1975)

If the hypotheses expounded above regarding the meaning of *to* and of the infinitive are correct, one should expect to find in (18) and (19) that *how* defines a before-position of the actualizer of *win* and *read* with respect to the place in time where these events would be realized. The notion evoked by *how* is that of 'means' or 'manner', and since the infinitive denotes the end or action which the existence of a *modus operandi* allows one to perform, there is indeed a before-after relation between the point in time at which the means/manner are available to the prospective actualizer of the infinitive's event and the moment at which he will actualize it. Consequently, the infinitive's event is represented by means of *to* as the end-point of a possible movement in time of its prospective actualizer whose beginning-point is defined by the moment in time where the means/manner are available to him/her. This latter point must necessarily be conceived as prior to the infinitive's event, whence the use of *to*.

Usage with *where* + *to* + infinitive can be illustrated by the following example:

- (20) Stock photo and assignment source book: where to find photographs instantly (McDarrah 1977, book title)

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attributes to its subject as a property really existing in time at the moment referred to by the copula. The presence of *-s* ending on *has* (*to*) and *is* (*possible to*) in the third person singular confirms the claim that the verb forms which occur in these constructions evoke realities and not potentialities. For a more detailed explanation of modal usage, see Duffley (1992: 93–99).

Here *where* refers to a spatial location, a place, and it is obvious that in order for someone to find something instantly, he must first be aware of the place for doing so. *Where* represents therefore the prerequisite condition which must be available to the actualizer of the infinitive event before he/she can actualize the latter. This sets up the relationship between two successive positions in time of the actualizer, which calls for the use of the preposition *to*.

While *where* involves the notion of a location in space where the infinitive's event can be realized, *when* denotes a moment in time:

- (21) When to sell stocks: Portfolio Liquidation; the Key to Superior Performances without Stock Selection (Emory, 1973, book title)
- (22) The leaping ouananiche: what it is, where, when and how to catch it (McCarthy, 1896, book title)

The title of Emory's book implies that there is a proper time to sell stocks. Similarly McCarthy informs the reader that if one wishes to catch a specimen of the leaping ouananiche, the proper time, as well as the proper place and means is of the utmost importance. Thus the *when + to + infinitive* constructions express the existence of 'a time for the infinitive event': in some cases knowledge of this time is required for the very actualization of the infinitive's event, as in (22); in others like (21), the event could be realized at other times but without the desired effects, i.e. *when* denotes the optimal moment for the event. In both cases, the potential actualizer must have prior knowledge of this time in order to realize the infinitive's event, or to realize it under optimal conditions.

In the case of *what* also, the *to + infinitive* construction produces the predicted expressive effect:

- (23) What to Do When the Taxman Comes: the Inside Story on How to Cope with Canada's Tax Department (Ferguson 1979, book title)
- (24) What to study: generating and developing research questions (Campbell et al., 1982, book title)

In (23), the author has a concrete plan to offer so that the reader will possess prior knowledge of what to do and consequently be able to outwit the tax department. In (24), the authors obviously feel that there are certain realities which can make good research topics: the pre-existence of these potential research topics makes it possible for people to study them.

The case of *why + to + infinitive* deserves special comment since many grammars treat this construction as impossible or non-existent (cf. the distributional pattern cited on p. 221). While it is true that *why + to* is not frequent, our survey of usage has brought to light sixteen attested uses thus far. The following are typical:

- (25) Why to ban birthdays (*Time*, 1992: 25)
- (26) Radio: How, When and Why to Use it (Tolleris, 1946, book title)
- (27) Why to vote Yes in the referendum (*The Globe and Mail*, 1992: A22)

Here *why* evokes the notion of reasons calling for the realization of the infinitive's event: (25) is the title of an article explaining how many elderly people die shortly after their birthdays and suggesting that we should therefore stop celebrating these occasions. In (26) the writer prepares his readers for the presentation of arguments in favour of using radio. In (27), the article introduced by this title presents reasons for voting 'yes' in a Canadian referendum on the constitution.

The use of *to* before the infinitive follows logically from the explanatory hypotheses being applied here. Since *why* evokes reasons, the speaker sees these reasons as valid for any prospective actualizer of the infinitive's event and calling for this event to be actualized. Since reasons are valid for the actualizer before the realization of the event itself – they are what calls for its realization – the speaker must consequently represent the actualizer as being motivated by the reasons at a prior position in time to that which the event itself will occupy. This introduces the notion that a movement in time is required in order to get from this before-position to the after-position represented by the realization of the infinitive's event. *To* is the sign of this notion.<sup>4</sup>

### 3.2. Interrogative contexts

#### 3.2.1. The bare infinitive construction

Since the bare infinitive construction is attested in interrogative usage for all of the *wh*- words – there are problems with *to* + infinitive with *why* – we will begin by examining bare infinitive interrogatives, as they allow for a full comparison with affirmative usage. After contrasting affirmative usage with *to* + infinitive and interrogative usage with the bare construction, we will eliminate one of these two variables in the next section by comparing *to* + infinitive versus bare infinitive constructions in interrogative usage.

Since *why* + bare infinitive interrogations are far more common than any other *wh*- word + bare infinitive construction (a fact we will attempt to account for below), we will start with them. Here are some representative examples:

- (27) Why settle for second best when you can buy the winner? (*Mac World*, 1993: 181 (47))
- (28) Why be old?: how to avoid the psychological reactions of ageing (Meares, 1975, book title)
- (29) If God could do that, He could do anything. The enemies at his gate, threatening to eat up his flesh, were nothing compared with the enemy of sin within his

<sup>4</sup> A hearer-based analysis might argue that it is the presence of *to* which causes *why* to be interpreted as evoking real reasons; however, from the speaker-based point of view adopted here, this cannot be so: before constructing the sentence, the speaker already knows or presumes the reasons he is talking about to be real, otherwise he would be in the logically contradictory situation of first constructing the sentence and then learning what he is talking about. It is the viewing of the reasons as real which leads him to represent them as impinging upon the prospective actualizer of the infinitive's event and calling for him/her to actualize this event, thus setting up the before-after relationship that calls for the use of *to*.

soul. And God had conquered that one by his grace! So why worry about all the others? (BUC D07 90–97)

Comparison of these uses to those with *to* + infinitive examined above shows a very different attitude on the part of the speaker towards the reasons for the performance of the event expressed by the infinitive. Whereas in *why to* uses the speaker has the reasons for actualizing some event in mind, *why*  $\emptyset$ ? structures are used by the speaker to imply that he is unable to conceive of any reason for the infinitive event to occur or to be performed. In one case the speaker has recognized the existence of real reasons calling for the realization of the infinitive event; in the other, he declares himself unable to imagine any legitimate reason for it. Thus, sentence (27) is an advertisement for an award-winning laser printer and the argument is that if you can buy the best there is no reason to buy second best. In (28) the author of the book thinks that he has found the secret to avoiding the psychological reactions of ageing and consequently sees no reason why anyone should feel old (if they read his book and follow the advice he gives in it). In (29) the writer sees no reason for a Christian to worry about the enemies on the outside when God has already shown his power and ability to conquer a much more formidable foe.

The underlying attitude of not seeing any reason why the infinitive event should occur or be performed leads the speaker to seriously question the conceivability of the existence of any valid reasons for this event to be actualized. Thus, all of the uses of *why* + bare infinitive are in interrogative clauses, and, moreover, are almost always rhetorical in nature. The absence of *to*, which sets *why* off from the other *wh*-words in the most commonly found pattern of distribution,<sup>5</sup> can be explained quite simply. Since the speaker is questioning the very conceivability of any reasons for the infinitive event to take place or be performed, the prospective actualizer of this event cannot be represented as being constrained by any reasons pushing him/her to realize the latter. Thus no logical relation of 'before' to 'after' can be established between some point prior to the event, at which reasons would be depicted as impinging upon its prospective actualizer, thereby calling for the event to be realized, and the realization of the event itself.

The explanation just given is in no way contradicted by uses such as (30) below, where a *why* + bare infinitive question is answered by a list of good reasons for performing the event denoted by the infinitive:

(30) Why Choose Fidelity For Your Keogh [RRSP]?

- Investment choice and flexibility
- Dedicated Retirement Specialists
- Assistance with year-end tax reporting
- Demonstrated fund performance
- Keogh customer newsletter

<sup>5</sup> The question of why it is that *why* stands apart from the other *wh*-words in being found exclusively with the bare infinitive in interrogative contexts will be taken up later.

- 24-hour customer service (Fidelity Investment advertisement, *New York Times*)

Such usage is a case of a rhetorical strategy commonly used in advertising; in an understanding manner, the advertiser first adopts the attitude of the typical consumer who is ignorant of the product being advertised and of the reasons for buying it, and then remedies this pardonable ignorance by supplying him with the information which he did not have before reading the ad. In (31) below, cited here to show that this strategy is not restricted to infinitival *why*-clauses, the ignorance has to do with the very existence of the product advertised:

- (31) Who ever thought there would be a weekly news magazine for home and apartment builders?  
We did!! (NAHB Journal-Scope advertisement)

With *why* + bare infinitive interrogatives, the consumer is presumed to be ignorant of all the good reasons for buying the company's product: in (30) therefore the advertiser is saying "you probably feel there are no conceivable reasons for choosing Fidelity for your investment" and then undoing this excusable assumption by giving the long list of reasons why one should choose their firm.

Next in frequency with the bare infinitive is *how*. Although this construction is rare enough to be omitted by many grammars – Poutsma (1926: 436–437), Kruisinga (1931: 144) and Jespersen (1940: 324–325) do give examples of it however – we have encountered 41 attested uses, from 16 different authors. Here are some representative examples:

- (32) His foot struck a chair, and he heard a gasp. There she was, curled and crushed into the corner of the sofa! His hand hovered. Did she want his consolation? He stood, gazing at that ball of crushed frills and hair and graceful youth, trying to burrow its way out of sorrow. How leave her there? At last he touched her hair, and said: "Come, darling, better go to bed." (Galsworthy, 1925: 1076)
- (33) He could not look at her; he stood helpless, pale, hang-dog. Every word she said was justified, and how tell her that he could do no other than he had done? How tell her that it would have been an outrage, a sin, to continue as her lover? He almost cringed from her and the birthmark stood on his yellow face like a splash of ink. (Orwell, 1989: 129)
- (34) Her advice was recently less in keeping with the standards by which she liked to think she lived. But how expect civic virtue from Jane whose house, to top everything else, had now been condemned? It was illegal as well as unsafe for her to spend another night in it. (O'Faolain, 1983: 40)

As with *why*  $\emptyset$ ?, *how*  $\emptyset$ ? signifies that the speaker is questioning the conceivability of what the *wh*- word refers to. Thus, whereas *how to* indicates that the speaker sees the means/manner of doing something as really existing, the bare infinitive con-

struction implies that the speaker feels himself incapable of imagining what the means/manner of performing the infinitive's event could possibly be. With respect to the three examples above, therefore, (32) implies that the speaker felt there was no way he could just leave here there; (33) evokes a situation where a man feels utterly incapable of standing up to his former lover and telling her the truth; (34) depicts a person from whom there was no way one could expect civic virtue due to her increasingly uncivic behaviour. In all of these uses, the existence of the means or manner of realizing the infinitive's event is evoked as highly questionable, i.e. practically inconceivable.

The consequence of the fact that the very existence of the means or manner for carrying out the infinitive event is questioned is that they cannot be represented as being available to the actualizer of the infinitive event at some point in time prior to the beginning of this event. This excludes the before-after relationship which calls for the use of *to*, and explains why the bare form is found in this type of context.

This impression of an impasse created by the practical inconceivability of the existence of a way to actualize the infinitive event is very strong in some cases. In (35) below, a poet describes himself as radically incapable of choosing between the two heritages which he has in his very own blood:

- (35) Where shall I turn, divided to the vein?  
 I who have cursed  
 The drunken officer of British rule, how choose  
 Between this Africa and the English tongue I love? (Walcott, in *Time* 1992: 66)

Sentence (36) evokes a seemingly insoluble architectural dilemma:

- (36) What was needed was a domed basilica, but this raised new architectural problems. In the Pantheon, the dome over a rotunda, the rotunda walls had provided an unbroken uniform support. But how place a dome over a square? How preserve the rotund elegance and yet keep the whole open for assembly? (Boorstin, 1992: 132)

Whatever the degree of inconceivability, however, it is sufficiently high in all cases of this type for the speaker to feel unable to suppose the existence of the means/manner of realizing the infinitive event. Since their very existence is questioned, they cannot be conceived as being at the disposal of the prospective actualizer of this event at a before-position in time with respect to it.

The same rhetorical strategy as that observed in the advertising example with *why* is sometimes also found with *how* + bare infinitive clauses. In his book *Peace of Soul*, F.J. Sheen describes the various causes of modern man's constant anxiety and frustration, and, quite frankly, the situation begins to look hopeless for modern man. This particular section of the chapter is summed up by the following question:

## (37) How deal with the man of today? (Sheen, 1949: 13)

In other words, the means or manner which would permit us to deal with the man of today are simply inconceivable, the situation is hopeless. Since this is only page 13 of the book, one wonders what Sheen is going to talk about for another 280 pages! However, once again this is a rhetorical use of a *wh*- word + bare infinitive question, similar to the advertisement with *why*. Sheen's question welcomes and calls all those who are desperate and without hope; it allows Sheen to present the problem through understanding for those suffering it. However, afterwards Sheen also provides a punch; his very topic of discussion is how to deal with the man of today.

Only one attested example has been found of *where* followed by the bare infinitive:

## (38) Where find the words to be joined like pearls of equal form and size to be a necklace for the Queen of Queens? A man would have to loot the heavens themselves. The words are out of reach unless she herself carries them down to earth and blesses me with them; and I'd give her own present back to her, Rainald thought. (DeWohl, 1950: 191)

Bolinger (1957: 135), however, feels this construction to be possible and offers the self-made example:

## (39) Where expect any better treatment?

Moreover, the impression produced by the attested example coincides both with Bolinger's intuitions and with the type of meaning observed with *why*  $\emptyset$ ? and *how*  $\emptyset$ ?. Clearly, DeWohl presents his character Rainald as being unable to conceive of a place where he could find the words he would need to describe the Queen of Heaven. After expressing the hopelessness of the situation in the first sentence, he then alludes to the impossible task (looting the heavens) that would be necessary to acquire these words and concludes that the only way to obtain them would be to receive them as a gift from heaven (in which case one would not be able to claim that one had found them somewhere oneself). Questioning the conceivability of the existence of a place where the infinitive event could be realized entails that *where* cannot be represented as a prerequisite condition whose availability to the prospective actualizer of *find* opens the way for the latter to realize this event. This absence of a before-position, i.e. of a representation of the actualizer as possessing prior knowledge of the place where the event can be actualized, is what accounts for the absence of the preposition *to* here.

Although no attested examples of *when* + bare infinitive have come to light as yet, Bolinger proposes the following fabricated example:

## (40) When prepare for what will never come?

Once again, his intuitions coincide perfectly with the type of meaning which the bare infinitive construction expresses as compared to that with *to*. Whereas the latter pre-

supposes the prior setting of a time whose identity is not specified, the *when*  $\emptyset$ ? construction proposed by Bolinger presents the fixing of a time to prepare for what will never come as an insoluble paradox, which means that the existence of a set time for such an event is logically inconceivable. Since the prospective actualizer of the event *prepare* cannot be represented as having the prerequisite knowledge of the time for performing this event available to him prior to the point in time at which the preparing is to be performed, *when* does not imply a before-position with respect to the infinitive's event and consequently *to* is not used.

We have found no attested uses of *what* followed by the bare infinitive. Nevertheless, one could easily imagine a sentence such as (41) below:

- (41) She was in utter despair. What give a multi-millionaire for his birthday?

Here the fact that the person in question already had everything under the sun renders it impossible to conceive of anything to give him for his birthday. Since in order to give something one must first know what to give, the inability to conceive of a concrete 'what' existing as an object to be given before the actual giving nullifies any before-after relationship and so *to* is not used.

### 3.2.2. *The to + infinitive construction*

The examples given of *to* + infinitive up to this point have all been affirmative in type, while those of the bare infinitive have been interrogative. The *to* + infinitive construction does occur in interrogative contexts, however, and this raises the question of how the before-after relationship implied by *to* can be present when the speaker is questioning the how, the what, the when or the where of the event. Such usage constitutes therefore a test for the explanatory hypotheses which have been developed above.

We shall see, however, that in *wh*-word + *to* + infinitive interrogatives what is in the scope of the question is not the conceivability of the existence of what the *wh*-word denotes but merely the latter's identity. This can be seen quite clearly in the following context with *how*:

- (42) Cuba: an arms blockade? Look at Castro now – cockier than ever with arms and agents to threaten the Americas. How can the United States act? Blockade is one answer offered by experts. In it they see a way to isolate Cuba, stop infiltration, maybe finish Castro too. This is the question now facing President Kennedy: How to put a stop to the Soviet buildup in Cuba and to Communist infiltration of this hemisphere? On April 25, the White House reported that a total embargo of remaining US trade with Cuba was being considered. (...) Another strategy – bolder and tougher – was also attracting notice in Washington: a naval and air blockade to cut Cuba off from the world, destroy Castro. (BUC H13 60–67)

Here it is taken for granted that there is some way to put a stop to the Soviet buildup in Cuba; the question posed concerns the identification of the most effective and

least costly means of doing so, an interpretation confirmed by the context where various possible forms of intervention are evoked. The bare infinitive structure would have given the impression of the United States despairing of ever accomplishing an impossible task, since it would call into question the very existence of any way to perform it.

Sometimes certain words in the context make the focus on the identity and not the existence of the *wh*- word's referent even more explicit. This is the case in:

- (43) Boxell did not have the chance to grow up graciously. He had to acquire everything he was going to get in four years. They had brandy in the library. Boxell looked at Lawrence with a searching glance, the kind that a prosecuting attorney would give a man on trial. What are your weaknesses? Where will you break? How best to destroy your peace? The Vice President said with a slight bluster, "there isn't anyone who loves the President more than I do. Old Chris is my ideal. At the same time, you have to face facts and realize that a man who's been in the Marine Corps all his life doesn't understand much about politics." (BUC K03 114–123)

Here the use of the word *best* shows that the question concerns the identity of the optimal way to destroy Lawrence's peace. Boxell's attitude as described in the other questions attributed to him (*What are your weaknesses? Where will you break?*) is clearly that of someone who is convinced that his adversary had weak points and that it is simply a matter of finding them.

*To* + infinitive interrogatives with the other *wh*- words give the same type of impression as with *how*:

- (44) Every library borrower, or at least those whose taste goes beyond the five-cent fiction rentals, knows what it is to hear the librarian say apologetically, "I'm sorry, but we don't have that book. There wouldn't be much demand for it, I'm afraid". Behind this reply, and its many variations, is the ever-present budget problem all libraries must face, from the largest to the smallest. What to buy out of the year's grist of nearly 15,000 book titles? What to buy for adult and child readers, for lovers of fiction and nonfiction, for a clientele whose wants are incredibly diversified, when your budget is pitifully small? Most library budgets are hopelessly inadequate. A startlingly high percentage do not exceed \$500 annually, which includes the librarian's salary, and not even the New York Public has enough money to meet its needs – this in the world's richest city. (BUC A44 1–7)
- (45) When to marry and where to live?: a sociological study of post-nuptial residence and age of residence among central Thai women (Chamratrithong et al., 1986, book title)

Similar to the examples with *how* discussed above, these questions are all requests for specification of the identity of that to which the *wh*- word refers. There is no calling into question of the existence of books to buy, of occasions to marry or of places

to settle down once one is married; on the contrary, in these contexts it is the plethora of choices open to the potential actualizers of these events which gives rise to the question as to which one to choose.

In our extensive survey of usage, no attested uses of *why* + *to* in an interrogative context occurred. It has been suggested to us, however, that it would perhaps be possible to imagine a sentence such as (46) below, constructed on the model of (42):

- (46) Consider the question now facing the referee evaluating this article: Why to recommend its publication?

Such a use would seem to suggest a frame of mind in which the referee is not calling into question the conceivability of any reasons for accepting the article but rather remaining open to the possibility of their existence and casting about in his mind in an attempt to find them. The question with *to* would thus express difficulty in identifying reasons whose existence is supposed, not an inability to conceive of any reasons for performing the infinitive's event. It must be pointed out, however, that *why* stands out from among the other *wh*- words in interrogative usage in two complementary ways. Firstly, it is the only *wh*- word whose use with the bare infinitive is banal and cited by all English grammars; it takes attested examples, on the other hand, to convince most English speakers of the existence of the bare infinitive with *how*, *when*, *where*, etc. Conversely, while *to* + infinitive interrogatives with *how*, *when*, *where* and *what* seem fairly banal, it takes considerable mental gymnastics to invent and interpret one with *why*.<sup>6</sup>

The examples attested above show therefore that a speaker uses *to* + infinitive in a *wh*- word interrogative clause when he wishes to question the identity of something which he supposes to exist (the object, place, time or way to realize the event). Since the latter's existence is not questioned but only its identity, there is still a before-after relation between the point in time at which the potential actualizer has at his/her disposal one of these prerequisite conditions necessary for him/her to realize the event and the point in time corresponding to the realization of the event itself. This is why there is a discernible contrast between *wh*- word + *to* infinitive questions and *wh*- word + bare infinitive questions, the primary difference being whether the speaker questions the conceivability of the existence of what the *wh*- word refers to or merely asks the hearer to identify this referent.

### 3.3. Accounting for the overall distribution in independent clauses

#### 3.3.1. The absence of the bare infinitive construction in affirmative contexts

The most striking aspect of the distribution of infinitival constructions with the *wh*- words is the absence of the bare infinitive in affirmative contexts, or, conversely, the restriction of the bare form to interrogative contexts. This is perfectly parallel to usage with *need* and *dare*, where either *to* + infinitive or the bare infinitive

<sup>6</sup> The special status of *why* will be discussed in detail in section 3.3.2.

tive can be used in interrogative utterances, but only *to* + infinitive in straight affirmatives:

(46a) Does he need to see a doctor?

(46b) Need he see a doctor?

(47a) He needs to see a doctor.

(47b) \*He needs see a doctor.

As argued in Duffley (1994), the bare infinitive can only be used with *need* and *dare* if the conceivability of the existence of need or daring is called into question by the speaker. This obviously stands in contradiction to affirmative uses such as (47a), where the real existence of a need is asserted. In the interrogative, however, the speaker has the choice between questioning the real existence of need or daring directly as in (46a), or calling into question the very conceivability of the latter's existence as in (46b).

The same alternatives are available with *wh*- words. In the interrogative, the speaker can either request specification of the identity of something whose existence is supposed (*wh*- word + *to*), or call into question whether any such something exists at all (*wh*- word +  $\emptyset$ ). In affirmative contexts, however, the speaker has no choice but to assert the existence of a means, reason, time, place, etc. for realizing the infinitive's event, as this is the whole point of the utterance. As a consequence of this, these prerequisites for the event's performance are felt to be available to or to provide motivation to the prospective actualizer of the infinitive event at a point in time prior to that of the latter's actualization. This explains the exclusive use of *to* in such contexts.

### 3.3.2. *The special status of why*

As mentioned above, *why* stands out in certain ways from among the other *wh*- words. It is the only *wh*- word whose use with the bare infinitive in interrogative sentences is so common as to be banal. And, inversely, it seems to show a special resistance to interrogative usage with *to* + infinitive: it takes considerable imagination to conceive of a situation where *why to?* would seem natural, whereas the use of other *wh*- words in this structure does not seem out of the ordinary. In this section we will present our interpretation of semantic parameters which seem to explain the characteristics of usage with *why*.

Bolinger (1957: 135) provides a first suggestion as to the reason for *why* having the highest frequency among the *wh*- words in bare infinitive interrogatives: a question with *why* "attacks the very reason for existence". Elsewhere Bolinger reinforces this idea by underlining that in questions "*why* [...]" puts the hearer on the defensive "[...] Motives are subject to attack" (ibid.: 160). This is why Quirk et al. (1985: 840) call *to* + infinitive questions such as *What to do next?* "inquiries", but claim that *why* with the bare infinitive "is always a directive", i.e. an "invitation", a "suggestion" or an "instruction", cf. *Why bother to reply?* (pp. 820–821). As with the other *wh*- words, the bare infinitive question here is not a request for information; in the case of *why* it is a way of directing the hearer away from some course of action

which the speaker implies to be pointless by calling into question the existence of any valid motives for doing it. This would seem to be the exclusive use of *why* + infinitive in questions, whereas the other *wh*- words are also found with the *to* + infinitive construction in questions.

This, we feel, is so because unlike places, objects, means, etc., reasons are an object of conception, i.e. they are brought into existence through a judgement made by a human mind for whom they then exist. Thinking of a place or a time, however, cannot be equated with bringing the time or the place into existence. A place does not normally exist because one has thought of it; a reason, on the other hand, can only exist for a person if he or she has made a judgement or has been led to make a judgement regarding the relation between certain facts representing potential reasons and a certain course of action which might be justified by the former. In other words, thinking of reasons can be equated with bringing reasons into existence for the person conceiving them.

Consequently, if we are unable to imagine possible reasons for doing something, we feel that we cannot assume any reasons to exist until someone has led us to make a judgement as a result of which we understand reasons to exist. Therefore, if the speaker asks a question about the reasons for performing an action, it is because none of the possible reasons which others have alleged or he himself has conceived of has survived this test of subjective judgement. To question the reasons for some yet-to-be-realized event is thus to call their very existence into question. Unlike times, places, objects, etc., a search for which requires exhausting the possibilities held within the extramental world (which greatly transcends the speaker's knowledge), a search for reasons only requires exhausting the speaker's intramental capacities to conceive of what they could be and consequently an unfruitful attempt at identifying them leads spontaneously to the questioning of their very conceivability.

#### 4. *Wh*- word + infinitive in subordinate clauses

As shown in (5) above, only *to* + infinitive constructions occur as subordinate clauses. The bare infinitive has not been found, nor does it seem possible, in any sentences of the following type:

- (50) Mr. Reama, who retired as vice president of the American Screw Co. in 1955, said, "Both parties in the last election told us that we need a five per cent growth in the gross national product – but neither told us how to achieve it." (BUC A05 55)
- (51) This baffling lack of distinct details recalls the secretary whose employer was leaving the office and told her what to answer if anyone called in his absence. "I may be back," he explained, "and then again, I may not." The girl nodded understandingly. "Yes, sir," she said, "is that definite?" (BUC R05 89–92)
- (52) We both had hangovers. Eileen declared she couldn't lift her head from the pillow. She lay under the covers making jabbing motions with her forefinger telling me where to look for the coffeepot. (BUC K18 45–47)

- (53) Smoking Cigarettes: the Unfiltered Truth: Understanding Why and How to Quit (Benner, 1987, book title)
- (54) Prior to 1942, automobiles were the individual responsibility of the agency to which assigned. This responsibility included all phases of management. It embraced determining when to purchase and when to trade vehicles, who was to drive, when and where repairs were to be made, where gasoline and automobile services were to be obtained and other allied matters. In 1942, however, the nation was at war. Gasoline and automobile tires were rationed commodities. The state was confronted with transportation problems similar to those of the individual. (BUC H04 60–65)

The question is raised therefore as to why the bare infinitive is not possible in subordinate clauses.

The answer to this question is to be found in the constraints which the attribution of a nominal function to the infinitive clause imposes upon the way in which the *wh*-word must be thought. In the examples above, the *wh*-word + *to* infinitive clause has the function of direct object. In order for it to be able to evoke that which is '[verb]ed' in the event expressed by the main verb – in the sentences above, that which is 'told' (50)–(52), 'understood' (53) or 'determined' (54) – the *wh*-word must be conceived by the speaker as evoking its referent as an entity whose existence is presupposed. This makes the *wh*-word like a noun, as all nouns presuppose the existence of their referents, since in order to name something it must be conceived as already existing, if only in the mind or the imagination (as is the case for things like unicorns and beauty). Since it expresses a calling into question of the existence of the *wh*-word's referent, represented as unable to constitute a before-position with respect to the infinitive's event, the bare infinitive construction is incompatible with a type of context where the existence of this referent must be presupposed.

Further evidence supporting our claim that *wh*-word clauses presuppose the existence of their referent in subordinate contexts can be found in the word order characteristic of these clauses when they contain finite verb forms. It is that of an affirmative and not an interrogative sentence:

- (55) What should we do on Thursday?
- (56) She asked a question about what we should do on Thursday.

Here since *what we should do on Thursday* is conceived as the object of the preposition *about*, its existence as an entity which can constitute the topic of a question is presupposed and so one does not get interrogative word order in the subordinate clause.<sup>7</sup>

<sup>7</sup> This calls into question the accuracy of the term 'indirect question' applied to such uses, as well as that of 'interrogative' applied to the *wh*-words themselves. The discussion of this problem would cause us to digress from the main point of this paper, however, and so will not be taken up here.

In subordinate clause usage, then, the fact that the *wh*- clause has a syntactic function in the sentence implies that the latter is conceived in relation to some other notion in the sentence and not simply in relation to its existence. In other words, when one conceives the *wh*- clause as, for instance, the object of the verb, one cannot at the same time question whether what it refers to exists or not: this question does not even come to mind, as the speaker's intent is to put the *wh*- word into relation with the verb, not to discuss whether its referent has real existence or not.

The example below underlines the meaning relationships involved in subordinate contexts, as it illustrates that even negation of the main verb does not call into question the existence of the *wh*- word's referent:

(57) They didn't teach me how to place a dome over a square.

Here the negation of the verb in its relation to its various complements has the effect of negating that 'how to place a dome over a square' was something which was taught to the speaker; this does not entail however that the sentence calls into question the conceivability of the existence of a method of performing this difficult architectural feat. Example (57) can be compared to (36) above with the bare infinitive where the very existence of a way to place a dome over a square is questioned and not just the teaching of a way to do this.

The range of functions which *wh*- word + infinitive clauses can fulfill has been referred to by Jespersen (1940: 324–325), Scheurweghs (1959: 309), Quirk et al. (1985: 1052, 117, 1225) and others, and their examples show clearly that *wh*- word + bare infinitive constructions are only attested as independent interrogatives. We are proposing here that in order to be related grammatically to some other significate in the sentence, i.e. to have a syntactic function, the *wh*- word must evoke something whose existence is presupposed, whence the occurrence of only the *to* + infinitive construction in such usage. Moreover, the preceding discussion clarifies why Jespersen got puzzled reactions from English speakers to an example which he fabricated as a non-native user of the language, and reported that "Opinions are divided as to the possibility of saying *I don't know why complain*" (1940: 324–325). The bare infinitive construction would imply that the very possibility of the existence of any reason to complain would be called into question, while the syntactic function of the infinitive clause would require that the reasons be presupposed to exist, as it is only the knowledge thereof which is negated. Attested usage, as our hypothesis would lead us to predict, has *to* + infinitive in this type of context:

(58) I think everyone should do it, I don't see any reason why not to do it. (CBC Prime Time News, March 18, 1994)<sup>8</sup>

This account can be compared with that offered by a formal rule-governed approach to grammar. The way such an approach treats the fact that one can say *Why*

<sup>8</sup> The context for this example is that of a woman who gave her own blood in anticipation of a hip operation describing how she feels about this practice.

*stay here?* but not *\*Why to stay here?* nor *\*I wonder why stay here* is to formulate a rule such as that below:

The lexical item *why* can be composed with a bare infinitival phrase but not with a *to* infinitival. The composite form belongs to a category S(q) (Brame, 1981: 284n.) which cannot be embedded. Hence the star on (7) [= *\*I wonder why stay here*]. (Dasgupta, 1981: 22)

This explanation is in fact simply a restating of the observational data using a formal jargon. As one would expect moreover, it is completely circular: since Brame's S(q) category corresponds to what he calls 'root questions', i.e. structures which can only occur as independent questions, Dasgupta's explanation consists in saying that *why stay here* cannot be embedded because it can only be used as an independent question. We have demonstrated here, however, using purely semantic parameters, that embedding a bare infinitive clause would not make sense because the *wh-* word would have to presuppose the existence of its referent in order to have the syntactic function it fills in the sentence, whereas the bare infinitive construction signifies that the conceivability of the existence of this referent is being called into question.

## 5. Conclusion

Hopefully this study has shown the fruitfulness of using semantic parameters such as the ones applied here to the problem of infinitival usage with the *wh-* words in English for explaining distribution and syntax. What would appear to be mere distributional facts about the presence or absence of *to* with certain of the *wh-* words have been shown to be fully explicable by semantic parameters. Moreover, what would appear to be a mere syntactic fact – the absence of the bare infinitive from subordinate clauses – has also been explained satisfactorily in terms of meaning.

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