VERB + *to* + INFINITIVE vs. VERB + *to* + GERUND-PARTICIPLE: A PRELIMINARY EXPLORATION

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Le présent article propose une description de deux structures semblables en anglais – Verbe + *to* + infinitif et Verbe + *to* + gérondif-participe – et une explication de deux aspects de ces constructions qui présentent un intérêt au plan de la théorie linguistique: la temporalité et le contrôle. Cette étude se fonde sur une syntaxe «matérielle» qui tient compte de la contribution sémantique de chacune des composantes d'une construction pour expliquer les effets de sens produits en discours. Les facteurs suivants se sont révélés pertinents pour ce type de structure: (1) le signifié de *to*, (2) le signifié de l'infinitif, (3) le signifié du gérondif-participe, (4) le signifié du verbe de la principale, (5) la valeur sémantique du rapport syntaxique entre le complément et le verbe de la principale. Ce cadre théorique est appliqué à un échantillon de verbes admettant les deux constructions afin d'en vérifier le bien-fondé.

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The goal of this article is to describe and explain the usage and meaning of two related constructions: Verb + *to* + infinitive and Verb + *to* + gerund-participle. As this is an exploratory study, only a small sample of verbs will be examined: *volunteer*, *react*, *object*, *incline* and *tend*. These two constructions are interesting to compare on at least two levels which have drawn the attention of linguists. The first of these involves the question designated by the term "control" in generative grammar (*cf.* Postal 1970: 458). It is a characteristic of constructions containing non-finite verb forms to pose the question of the identification of their logical subject. Thus in (1a) it is understood that Joe is the actualiser of *jogging*, while in (1b) the message is that it is the person to whom Joe made his suggestion who should perform this action:

(1a)   Joe tried jogging twice a week.

(1b)   Joe recommended jogging twice a week.

The type of impression observed in (1a) is termed "subject control", that found in (1b) "non-subject control".

While the two constructions under study appear to be very similar to one another, they do not manifest exactly the same control interpretations. Commenting on (2a) and (2b) below, which might appear at first sight to be synonymous, Rudanko (1996: 62-63) notes that although "in the case of the *to*-infinitive it is clear that PRO is controlled by NP_1, [i.e. the subject of the main verb]," with the gerund-participle "this is less definite, and there is more

scope for thinking that some entity other than Cabinet ... is going to revise the bill."

(2a)   The Cabinet agreed to revising the bill.

(2b)   The Cabinet agreed to revise the bill.

The author offers no explanation however as to why this difference in control readings should exist, merely noting this curious fact.

Another curious fact about these two constructions has to do with the temporal relations between the events expressed by the main verb and the complement. Duffley (1992: 88-89) has observed that the *to*-infinitive always involves a relation of subsequence between the main verb's event and the infinitive's. This can take the basic form of a subsequent potentiality, as in (3a), or that of a subsequent actualization, as in (3b):

(3a)   I wanted to close the window.

(3b)   I managed to close the window.

In the first case the infinitive is understood to be a future, non-realized goal with respect to the main verb's event. In the second, it is evoked as the result attained by means of the latter. Duffley attributes the effect of temporal subsequence to the meaning of *to*: when the general notion of kinetic orientation potentially leading to a point signified by this preposition is construed in the domain of time, the starting-point (corresponding to the main verb's event) is implied to occupy a prior position with respect to the end-point (which corresponds to the infinitive's event). Since *to* is also present in the gerund-participle construction, one should expect it to show the same temporal subsequence interpretations as infinitival construction do. Indeed this is the effect observed in a sentence such as (4):

(4)   I look forward to meeting you.

However, there are many examples of this construction in which this impression is not observed. In (5) below, for instance, the

temporal relation is exactly the opposite of that found in infinitival constructions:

(5)   He confessed to stealing the ring.

Such cases obviously call for a re-examination of the hypothesis that *to*'s meaning alone is responsible for the impression of subsequence.

These, then, are the two main types of question which will be explored relative to Verb + *to* + infinitive and Verb + *to* + gerund-participle constructions. The study is based on the analysis of approximately 380 attested examples of the verbs selected to test the hypothesis. Most of the examples have been obtained from the British National Corpus (BNC), which has been supplemented by material from the Internet for some verbs.

Explanatory Hypotheses

The account proposed will take the form of what one could call a "material syntax". Instead of abstracting away from the material content of the words which make up the constructions, an attempt will be made to describe the semantic content of each of their components and to characterize in semantic terms the relations between them. This will allow meaning-based explanations to be offered for the curious facts alluded to in the introductory section of this paper.

The account proposed here will build on previous research into the distinction between Verb + *to*-infinitive vs. *to* + gerund-participle constructions. Like *to* + infinitive vs. *to* + gerund-participle structures, these also show contrast in control and temporal interpretations. The *to*-infinitive manifests both constant subject control and constant subsequent temporality readings:

(6a)   I hoped to see Mary.

(6b)   I tried to get through the door.

(6c)   I managed to talk to her.

The gerund-participle, on the other hand, shows a wide variation in its temporal relation to the main verb. It can be contemporaneous (7a), prior (7b) or subsequent (7c):

(7a)   I enjoyed talking with you about it.

(7b)   I remembered talking with you about it.

(7c)   I considered talking with you about it.

Similarly, as regards control, the gerund-participle varies between subject (8a) and non-subject (8b) control readings:

(8a)   She tried eating less trans fats.

(8b)   She advised eating less trans fats.

The explanation proposed for these phenomena involves many elements which are also applicable to *to* + infinitive vs. *to* + *-ing* constructions. Five semantic parameters have proved to be essential: (1) the meaning of *to*, (2) the meaning of the infinitive, (3) the meaning of the gerund-participle, (4) the meaning of the main verb, (5) the semantic value of the syntactic relation between main verb and complement.

The meaning of *to* has already been alluded to. It will be held here that introducing an infinitive is just one of the possible uses of this preposition. As such, the general notion of kinetic orientation potentially leading to a point is applied in this use as well. Indeed, this notion is so general that it can be construed in a great variety of domains. Applied to space, it produces the commonplace impression of a movement from one point to another:

(9)   He walked from the bus station to his home.

When complemented by an infinitive, its domain of application is generally that of time (although we will see later that this must be made more precise). The idea of a movement whose end-point is an event will usually create the impression of subsequence we have

observed in uses such as (6) above. *To*'s meaning can also be construed in the mental domain however, as in (10) and (11):

(10)   He compared Saddam Hussein to Stalin.

(11)   This play corresponds perfectly to my idea of comedy.

In (10) comparison involves a mental movement from one term of the comparison to the other. A similar movement is implied by the notion of correspondence in (11) whereby the play in question is mentally placed in the category defined by *my idea of comedy*.

> The meaning of the bare infinitive is a more abstract version of the meaning of the simple form of the verb, with which it shares the same linguistic sign. The simple form, as its name might suggest, simply situates an event in time. This involves treating the event holistically and therefore conceiving the stretch of time corresponding to the event as containing all of what is involved in the latter's lexical content. This can take two forms. If the event is action-like, each of its interior instants involves change, and the simple form evokes the complete duration of the action which is required to situate all of its various phases in time:

(12)   She opened the door.

This has been called a "metaphase" view of an event (Hirtle 1995: 268). If the event is state-like on the other hand, each of its interior instants is identical to the others, and the simple form may evoke any of the moments of the state's existence as containing all of what is involved in the state:

(13)   She *looked* happy when I saw her.

This has been called a "monophase" view of an event (Hirtle 1995: 269). The bare infinitive manifests the same expressive capacity of evoking either an action in its full duration (14) or a state in its full-fledged existence at some point within its duration (15):

(14)   Careful! He might *open* the door.

(15)   He might *be* sick.

Consequently it will be treated here as denoting the integral actualization of its lexical content in time. Since the infinitive does not include present or past tense as part of its semantic make-up, the image of integral actualization evoked by the infinitive is represented in the abstract, i.e. it is not tied down to the present or past time-spheres. This makes it compatible with any time-sphere:

(16a)   I am watching Dad wash the car.

(16b)   I watched Dad wash the car.

(16c)   I am going to watch Dad wash the car.

The meaning of the gerund-participle is a rather murky question in English grammatical analysis. The most recent major grammar of English (Huddleston and Pullum 2002: 83) argues in favour of adopting the term "gerund-participle" (which has been adopted here as well) since its authors see no reason to give priority to one or the other of the traditional terms; however they propose no definition of the semantic content of this form at all. The latter is implied to be tenseless (pp. 159 ff.) and aspectless (p. 1265), but these are merely negative characterizations which moreover do not distinguish the gerund-participle from the past participle. The absence of a definition of the verbal *-ing*'s content is due to the fact that these authors accept a divorce between form and meaning, holding that "a single form does not always convey the same meaning and the same kind of meaning can be expressed by very different formal means" (p. 117). Thus the phrase *be* + *-ing* which is treated as a category of syntactic form called the "progressive aspect" (p. 163) is not always an exponent of "progressive aspectuality, a category of meaning," as there are "non-aspectual uses of the progressive," e.g. *I'm phoning her tonight* (pp. 171-172). This would imply that the *be* + *-ing* phrase has no stable semantic content.

Other authors do propose a meaning for the gerund-participle. A recent cognitive study (Hamawand 2002: 64) defines both the *-ing* participle and gerund as designating an "imperfective

simple atemporal relation which views only the internal configuration of the process," i.e. which "excludes its initial and final states". This analysis builds on a long tradition of defining the -*ing* form as an imperfective (cf. Kruisinga 1931: 259, Hirtle 1975: 20-21, Freed 1979: 72-73, Wierzbicka 1988: 68). However, it meets an impasse when faced by uses such as (17) below, where the gerund-participle clearly denotes something already accomplished at the moment in time corresponding to the main verb:

(17)   He admitted stealing the ring.

Such a use would have to be called perfective according to commonly accepted aspectual categories (cf. Comrie 1976).

The definition of the -*ing* form utilized here is based on an attempt to reconstruct a meaning potential which can explain not only its use in the progressive but also uses such as (17). This entails that the -*ing*'s meaning must be more general than the notion of progressivity, of denoting an ongoing event. The hypothesis on which this study will be based is that as a potential before use the gerund-participle corresponds to the general notion of an event's interiority. When this notion is applied to the expression of a particular message, it can be actualized under conditions in which the subject of the -*ing*'s event is situated at a specific moment within the event's interiority, or in cases in which this interiority is evoked as a whole. The latter corresponds to uses such as (17); the former to the gerund-participle's use in the progressive. In general, whenever the gerund-participle is used as a noun, the interiority of its event is evoked as a homogenous whole.

The gerund-participle has the same function as a noun in cases such as (7) and (8) above: it fulfils the role of direct object. This can be evidenced by the possibility of substitution by a direct object pronoun and by active/passive correspondences:

(18a)   Everyone without exception enjoyed playing tennis
         on the new courts.

(18b)   Everyone enjoyed that.

(18c) Playing tennis on the new courts was enjoyed by everyone without exception.

Semantically, this function is characterized by the fact that the direct object denotes 'that which is *verb*ed'.

Putting all of these semantic factors together affords an explanation of both the temporal variations observed in (7) above and the fluctuations in control readings observed in (8). In (7a) *talking* is represented as 'that which was enjoyed'; since *enjoy* means 'to take pleasure in' and one takes pleasure in an action while one is performing it, this sequence implies contemporaneity between the enjoying and the talking. In (7b) *talking* is represented as 'remembered'; a situation which obviously entails that the talking is prior to the remembering. In (7c), talking is conceived as 'considered'; since considering an action implies that the latter has not yet been performed, the talking will be understood to be a non-realized future event in this context. Given the direct object function of the gerund-participle in (8), control is also dependent on the meaning of the main verb. In (8a) *try* means 'test, try out' (cf. *I tried a longer screwdriver)* and *eating* is conceived as 'that which was tried'. Since one can only test an action by performing it, this verb implies subject control. In (8b), in contrast, *eating* is represented as 'that which was advised', i.e. as a piece of advice. This entails that its performance is proposed as advisable behaviour to the person to whom the advice is given.

The situation with the *to*-infinitive is slightly more complex, as it is not usually a direct object. This can be seen from the impossibility of substituting it by a direct object pronoun (19) and the lack of passive equivalents to active constructions like (20):

(19a) I want the green bicycle.

(19b) I want it.

(19c) I want to see you tomorrow.

(19d) *I want it.

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(20a)   Everyone without exception wanted to play tennis
       on the new courts.

(20b)   *To play tennis on the new courts was wanted by
       everyone without exception.

Based on the parallel between constructions such as those illustrated in (21), it will be assumed here that the *to*-infinitive is a prepositional phrase denoting a goal or result of the main verb's event:

(21a)   I want to have peace and quiet.

(21b)   I long to have peace and quiet.

(21c)   I long for peace and quiet.

In other words, just as the preposition *for* defines the relation between the verb *long* and the noun phrase *peace and quiet* in (21c), so the preposition *to* defines the relation between *want* and *have peace and quiet* in (21a).

Putting the pieces of the semantic puzzle together with the *to*-infinitive also affords an explanation of its control and temporal readings. Since the infinitive denotes the end-point of the movement signified by *to*, when this movement is construed in time a relation of temporal subsequence will be set up between the main verb and the infinitive. In addition, since *to* explicitates a notion of movement implied by the main verb's event, the subject of the main verb will be understood as moving (actually or potentially) to the place in time corresponding to the infinitive. This will produce a constant impression of subject control in infinitival complement constructions introduced by *to*.

The success of this explanatory framework in handling the contrast between Verb + *to* + infinitive vs. Verb + gerund-participle constructions suggests that it can also offer a better understanding of Verb + *to* + gerund-participle constructions. The problems mentioned in the introduction show however that certain refinements or adjustments to the hypothesis seem to be required if

that understanding is to be achieved. What follows is an attempt to apply the explanation to a significant set of data in order to test its validity and identify exactly where such adjustments need to be made.

Application to Corpus Data: Volunteer, React, Object, Incline, Tend

Volunteer

The verb *volunteer* occurs primarily with the *to*-infinitive in the corpus. In these cases, the meaning evoked by the verb is "to enter into or offer oneself for any service of one's own free will without solicitation or compulsion" (Webster's). The following examples illustrate this meaning:

(22) Sam had volunteered to pick me up. (BNC)

(23) Nobody ever volunteered to work with Brian. (BNC)

The verb *volunteer* also occurs with the *to* + *-ing* construction in the corpus.[1] Here its meaning undergoes a slight shift from that observed above to one of two possibilities. In some cases, it evokes a meaning which could be characterized as being close to *willingly admit*:

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1. Cases of apparent syntactic parallelism have been excluded from our analysis. Such is the case in the following:

(i) It not only enables relationship and task based bonding amongst the team members, but also helps the team members to co-create a shared context for them to *identify with, relate to* and *volunteer to* making it happen.

The speaker's choice of the *to* + gerund-participle construction may have been influenced here by a desire to maintain the syntactically parallel structure found with *identify with* and *relate to*, which are both construed with an *-ing* complement.

(24)   The British Social Attitudes report of 2001 argues
        that political interest has remained stable over the
        period 1986 to 1999. Whilst political party
        identification has weakened, there has also been a
        small but significant increase in the percentage of
        the electorate who volunteer to having no party
        identification.

In other cases, the meaning approaches that of *willingly submit*:

(25)   These articles though set me thinking of the
        practical ways of forcing my new husband into
        knickers, because one thing was sure, he certainly
        wouldn't volunteer to being dressed in the frillies I
        wanted him in, unless I could come up with a
        method of persuasion that he couldn't refuse!

In no cases with the gerund-participle construction in our corpus does the meaning of *volunteer* correspond to that of "entering voluntarily into service" as observed above with the *to*-infinitive.

        As far as temporal relations are concerned, all examples with the *to*-infinitive in the corpus involve an impression of subsequence. In (22) and (23) above, both the events *pick me up* and *work* are felt to exist at a point in time that is subsequent to the action of volunteering expressed in the matrix. There appears to be no deviation from such temporal readings in data we have gathered. As for cases involving the gerund-participle, one observes a temporal impression of simultaneity, as in (24) and (25). In (24), the state of *having no party identification* is felt to exist at the point in time corresponding to the volunteering expressed by the matrix. In (25), *being dressed* is represented as an event that is submitted to, i.e. undergone without resistance. These are the only temporal impressions observed in the corpus data with the gerund-participle construction.

        As far as control impressions are concerned, one observes strict subject control with the infinitive. In (22), the understood subject of *pick me up* is felt to correspond to *Sam*. Likewise, in (23), the understood subject of *work* is understood as

being *Nobody*. The data in the corpus show no deviation from subject-controlled readings with the *to*-infinitive. Subject control is also the case with the gerund-participle construction. In (24) above, the understood realizer of *having* is *the electorate*. Likewise, in (25) the overt realiser of *being* corresponds to the subject of *volunteer*, i.e. *he*.

React

The verb *react* occurs only with the *to* + *-ing* complement in the corpus.[2] Here its meaning could be best characterized as "to respond in a particular way to a particular treatment, situation or other stimulus" (Webster's) or in equal fashion as "undergo a change or show behaviour due to some influence" (Oxford). The following examples bring out this meaning:

(26)   But how would the British react to being given the
          chance to air their views? (BNC)

(27)   Imagine how club bouncers would react to finding
          a bundle of Khat during a door search. (BNC)

There is no variation on this meaning among the examples in the corpus.

As far as temporal relations are concerned, one observes in many cases involving the gerund construction an

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2.   *React* can also be construed with the *to*-infinitive, as in:

(i)   Odd as all of this might be, imagine how one would *react to find* an Orthodox church in which the Sacred Heart statue was prominently displayed!

(ii)   I wonder how they will *react to know* that the federal government is contemplating decriminalizing possession of narcotics.

Here, however, the infinitive does not stand in direct relation to the main verb but rather functions as an adverbial of time/condition with respect to the main clause as a whole. In other words, the bare infinitive's event does not denote, as with the other verbs under study here, the endpoint of the actualization movement specified by the preposition *to*. For these reasons it is not relevant to our study.

impression of priorness, whereby the event denoted by the complement is felt to exist before that of the matrix. Such is the case in both (26) and (27) where the events *being given* and *finding a bundle of Khat* are felt to necessarily occur prior to the reaction expressed by the matrix. In some cases however, namely those involving more state-like events, there is an impression of simultaneity, whereby the complement event is felt to exist at a point in time corresponding to the reaction expressed by the matrix. Such is the case in the following:

(28)   Remember how the author had reacted to being left-handed? It was not the memories that a right-handed person has.

(29)   For someone who loves wolves, dogs, cats and most animals, it was interesting to see not only how people reacted to being around these wolves, but also how the wolves themselves reacted to some people.

In (28), *being left-handed* exists at a point in time coinciding with (and preceding) the reaction. Likewise, in (29) the existence of the event *being around these wolves* is contemporaneous (and prior) to the reaction expressed in the main verb. Simultaneity is not, however, only restricted to state-like events. With action-like events one can also observe this same temporal relation:

(30)   I wonder if my body is reacting to being regularly bombarded with allergens, and if so, could that manifest itself in the symptoms I have described?

(31)   How does the whistling thorn react to being eaten?

Here the ongoing action-like events *being regularly bombarded* and *being eaten* are felt to co-exist in time with the reaction expressed in the main verb.

As far as control impressions are concerned, one observes subject control in all cases. In (26) above, *the British* is understood to be the overt realizer of *being given*. Likewise, in (27),

club bouncers is the understood subject of *finding*. In the following examples however one observes non-subject control:

(32)   Also, be warned, if you put personal information on the web, you are opening yourself up to a rebellion from someone who values their privacy. When I put the Middletown site online, I included some pictures of church activities. One of the pictures was of two of our young girls (one of them was my daughter). The girls were not named, no phone numbers or addresses were given. It was just a picture of two girls getting food at a potluck. One of our members had a major problem with this. She was convinced that a predator would find this site, would track down these girls and kidnap them. Needless to say, her fears were unfounded. But, if a person can react that way to a picture of two children, with no form of personal information, how would they react to putting actual person information on the web?

(33)   A source close to the Disney board said Eisner, who was running unopposed, agreed to step aside as chairman and that some directors initially questioned how shareholders would react to appointing Mitchell to the post. Mitchell also expressed some reluctance, according to the source, who said the board ultimately believed he was "the best man for the job."

(34)   I just got my first golden this week and am concerned about him around daycare children. I care for little children and wonder if anyone has ever noted them to be aggressive. I have limited his time around them the last two days because I am not sure how he might react to pulling on his ears.

In (32), the understood subject of *putting* is not *they* but rather the entity considering putting information on the web, i.e. the church representative in the text. In (33), the understood realizer of *appointing* is the *directors* and not the *shareholders*. In (34), the

possible realizer of *pulling* is the daycare children and not the dog itself who is the hypothetical realizer of the reaction.

Object

The verb *object* occurs with both complement types in the corpus. It occurs more frequently with the *to* + gerund-participle complement, where its meaning is that of "to oppose something with words or arguments" (Webster's):

(35)   She had made some preparations for their dinner, but she didn't object to going out. (BNC)

(36)   Suppose you object to carrying out a particular management order. (BNC)

Object is more restricted in its use with the *to*-infinitive complement, there being in fact only one attested example in the British National Corpus. In this example, cited here, the meaning could be most aptly characterized as that of *refuse*:

(37)   David Helton replies: I agree that there's some quite beautiful romantic poetry in the Bible, a tribute to King James's translators as much as anyone, but the statement of mine that you object to actually read: (BNC)

In other examples, located on the Internet, one observes a similar meaning as well as the following examples attest:

(38)   I strongly demur to a great deal of what appears as "free thought" literature, and I object to be in any way connected with it.

(39)   He ought not to wonder that I object to speak to him on painful subjects.

(40)   I can plead for this kind of work, as my work, as much as Mr. Bradlaugh can claim it as his, and,

therefore, I object to have it put down as peculiarly
and expressly the work of Secularists.

(41)   I am nearly eighteen, sir, and I object to be called a
         good little girl.

As far as temporal impressions are concerned, one observes a
subsequence relation with the infinitive and variability of temporal
relation with the gerund-participle. In (38)-(41), the infinitive's
event is prospective with regards to the objection, or perhaps more
accurately the *refusal*, expressed by the matrix. In (35), *going out*
has yet to occur at the point in time corresponding to the non-
objection expressed by the subject and in (36), *carrying out* is
prospective with respect to the objection that the subject might or
might not imagine himself raising. Such a temporal reading of
subsequence, however, is not always the case with *object* and the
gerund-participle construction. As the following sentences
illustrate, one also observes simultaneity with state-like events:

(42)   Most astronauts object to being scientists' guinea
         pigs. (BNC)

(43)   You don't object to being a known nut? (BNC)

(44)   Some parents objected to having their child in a
         school with a warden like this. (BNC)

In all three cases cited here, the complement event is felt to exist at
a point in time coinciding with that expressed by the matrix. Thus,
in (42) and (43), *being* is a state that exists contemporaneously with
object and *don't object* respectively. Likewise, in (44), *having* is a
state that also exists simultaneously in time with the main verb
objected. In some cases involving the gerund-participle, the
temporal impression is one of priorness, whereby the complement
event is felt to exist prior to the objection:

(45)   The first complainant objected to receiving this
         unsolicited mail, while the second wished to be
         removed from the database.

(46)   David Ortiz caused a keffufle when he objected to getting hit on the hand by a Ted Lilly pitch. The whole spectacle had me alternating between worry – (please please please do not earn another suspension Papi!) and scorn (if you're going to fight, then fight. Otherwise take your base).

In (45), the subject is felt to have received "unsolicited mail" prior to his objection, which is indeed its cause. In (46), the subject *David Ortiz*'s objection arises as a result, or subsequent to, his getting hit on the hand.

In terms of control, one observes subject control with the infinitive construction. In (37) above, the prospective realizer of *read* is the subject of the main verb, *you*. In (38-40), the understood subject of *be*, *speak* and *have* is the subject of *object*, i.e. *I*. With the gerund-participle construction, one observes both subject and non-subject control. All the examples with this construction given above involve subject control, whereby the subject of the complement corresponds to that of the matrix. In the following examples, however, such is not the case:

(47)   If you object to using your health information for fundraising, please contact: Advocate Charitable Foundation at (847) 384-3400.

(48)   Opponents object to making women's reproductive material a large-scale industry with the related hormone injections and invasive harvesting techniques, others object for anti-choice reasons, some don't like the funding mechanism and scale of the bond measure, while some don't trust biotech and medical industries to wisely invest the $3 billion in order to benefit the public health rather than to help owners of patented cell-lines and others boost their profit margins.

(49)   Present the issue as you did to the vet and medical school professors. Be persistent and remember that

you are simply asking for an option for those who ethically object to using animals in labs.

(50)   The administration is arguing that the Clinton videotape should be kept inside the courtroom. The president says he does not object to making the tapes available to the public, under certain conditions. But, he added, "It shouldn't be abused in any way."

In (47), the understood subject of *using* is not *you*, but rather the organization mentioned as considering using personal information. In (48), the understood subject is not *opponents*, but rather another entity, namely industry and companies involved. In (49), the subject corresponds to those considering using animals in labs. Finally, in (50) the understood subject is the administration, not only Clinton himself, who will make the tapes available.

Incline

The verb *incline* occurs with both complement types in the corpus. It occurs more frequently with the *to*-infinitive where it has the meaning of "to lean, tend, or become drawn especially toward an opinion or course of conduct" (Webster's):

(51)   He did incline to be very uptight. (BNC)

(52)   But Mexicans incline to view the border with irreverence, referring to the American side as el otro cachete, the other buttock.

Incline is much more restricted with the *to + -ing* complement as the data suggests. The fact that there are no attested examples in the British National Corpus is a clear indication of the relative uncommonness of its usage. In the cases of *incline + to + -ing* that we have discovered through searching the Internet, the meaning of *incline* appears to undergo a slight shift to what could be characterized as the sense of "orient in the direction of; impart a trend toward, liking for, or intent in" (Webster's) as in the following:

(53)   Even when we don't know better than God we still
         incline to doing things our own way.

(54)   They differ mainly in assessing its warmth and
         strength, though many incline to viewing it as a
         myth.

The directional sense brought out in these uses with *incline* is what
is observed when it is construed with *to* + nominal object, as in:

(55)   The right-wing extremist skinhead scene strongly
         inclines to violence.

In cases involving *incline* with the gerund-participle, substitution
with the infinitive yields a very subtle shift in meaning:

(56)   I incline to thinking (think) he is right.

(57)   I incline to being (be) a glass half-full optimist
         rather than a glass half-empty pessimist.

Here the *to* + *-ing* is felt to be slightly less assertive than the
infinitive. It suggests a leaning towards a certain position rather
than a predisposition to actually adopt it.

        As far as temporal impressions are concerned, as with
all cases of verbs with the *to*-infinitive mentioned thus far, one
observes a subsequence relation. In (51) and (52) the inclination
evoked by the matrix is the permanent disposition of the subject,
with the complement events *be very uptight* and *view the border*
being prospective objects of this disposition. One also observes
subsequence with the *to* + *-ing*. For example:

(58)   The paroemia (short, pithy saying or adage)
         'familiarity breeds contempt,' holds true for
         Christianity as well, for I suppose most believers
         eventually incline to treating their salvation as
         commonplace.

(59)   He now inclines to having two star representatives
        on the Board in place of the present ones, with the
        idea that they would be full-time appointees.

In (58) and (59), *treating* and *having* are both goals of the inclining movement expressed by the matrix; that is, they are felt to be situated in the future with respect to it.

In terms of control, one observes strict subject control readings with the infinitive construction. Thus in (51) and (52) above, the understood subjects of *be uptight* and *view the border* correspond in both cases to that of the main verb, i.e. *He* and *Mexicans* respectively. With the gerund-participle construction, one generally observes subject control. Such is the case in (58) above, where the understood subject of *treating* is *most believers*, and in (59), where the understood subject of *having* is *he*. In some cases involving the gerund, one observes non-subject control, as in the following:

(60)   This is bhava and vibhava in Buddhism. Bhava is
        the inclination to grow, and extend in time into
        happier states; vibhava inclines to getting away.

Here the understood subject of *getting away* is not *vibhava* but rather some human being who possesses this inherent characteristic. The gerund-participle construction can also be open to a joint-subject control interpretation, as in the following example:

(61)   The H-1B expiration date on my wife's I-94 is
        March next year. So I still incline to going back to
        China. But my wife is afraid that if they ask for
        her paystub and find out that she's already out of
        status before she leaves she'll be rejected a visa and
        they won't even give her any chance to appeal. So
        we still can't make a decision.

Here the overt realizer of *going back* is both the speaker and his wife.

Tend

Many of the observations offered above for the verb *incline* may also be made with regards to the verb *tend*, as the two verbs evoke a similar meaning. Like *incline*, *tend* can be used with both complements, with the shift in meaning barely perceptible in many cases. In its use with the *to*-infinitive, it has the meaning of "have an inclination to a particular belief, feeling, or attitude" (Webster's), as in the following:

(62)   She also thinks that men tend to choose women.
       (BNC)

(63)   They tend to be young, energetic, and ambitious.
       (BNC)

As was seen in the case of the verb *incline*, usage of *tend* is more restricted in the case of the *to* + gerund-participle complement. The British National Corpus, in fact, contains no attested examples. In the cases involving *tend* + *to* + *-ing*, the meaning of *tend* undergoes a slight shift to that of "exhibit a tendency towards" as in the following:

(64)   People in the Czech Republic as well as in other
       industrialised countries tend to eating more fat and
       less   carbohydrates,   especially   complex
       carbohydrates.

(65)   Certain present day Christian thinkers also tend to
       viewing Hell as consisting chiefly of separation
       from God and hopelessness.

In these cases, as with *incline*, *tend* is used in more of a directional sense, as in its use with nominal objects:

(66)   If people were left alone without controls they
       would all tend to violence.

Here the violence is merely represented as the target of the tendency expressed by the main verb. In a number of cases, and as seen with *incline*, substitution leads to similar results on the level of the message conveyed:

(67)   I tend to being overprepared.

(68)   I tend to be overprepared.

The difference lies in the fact that the example with the *to + -ing* complement merely expresses, as with nominal objects, a certain direction of a tendency towards an abstract object, i.e. *being prepared* in this case. The infinitive example expresses a tendency on behalf of the subject to actually be overprepared.

With *tend* and the infinitive one observes a temporal relation which could be characterized as subsequence. In (62) and (63) the events *choose women* and *be young* are subsequent to the tendency evoked by the matrix which is a disposition of the subject. With the gerund-participle one also observes a relation of subsequence, as in:

(69)   Judges will tend to giving the verdicts of guilty.

(70)   His t.v. character, now and then, tends to making
              sharp remarks about others.

(71)   Although they were careless (and therefore morally
              culpable) in their use of the gas, I would tend to
              viewing the use of the gas, in context, as a moral
              act.

In (69), *giving* is the necessary consequence of the judges' tendency. In (70), *making* is also a necessary consequence of a tending movement towards it. In (71), *viewing* is an opinion that is felt to exist subsequent to the tendency evoked in the matrix.

In terms of control, one observes subject control with the infinitive construction. Thus in (62) and (63) above, the understood subject of *choose* and *be* is *men* and *they* respectively.

With the gerund-participle construction one also generally observes subject control. This can be seen in (69) above, where the understood subject of *giving* is felt to correspond to *Judges* and in (70) where the subject of *making* corresponds to *His t.v. character*. However the *to + -ing* construction also admits non-subject control, as seen in the following:

(72)   She was rather of a philosophical turn and her philosophy tended to seeing the brighter side.

Here the understood subject of *seeing* is understood to be *she*, and not *her philosophy*.

A Semantic Account of Observed Temporal and Control Effects

The observations made in the preceding section with respect to the Verb + *to* + infinitive and the Verb + *to* + *-ing* constructions are in line with those made at the outset of this study; namely, the infinitive manifests constant subsequence and subject control readings while these relations are seen to vary with the gerund-participle. An explanation with regards to the stability of the infinitive's relation to the main verb has already been proposed: since the bare infinitive denotes the endpoint of the movement signified by *to* and since *to* explicates a notion of movement involved in the main verb's event, an event in which the subject is involved, this construction manifests constant subsequence and subject control readings. An attempt will now be made to discern the underlying reasons for the variability observed with the gerund-participle construction.

Volunteer

Two meanings were observed in the case of the verb *volunteer* + *to* + *-ing*: *willingly admit* (24) and *willingly submit* (25). Both senses, in all examples gathered in our corpus, were seen to exhibit a temporal relation of simultaneity. An impression of simultaneity with regards to the *willingly submit* sense is explicable by the fact that when one 'submits' to an event, one subjects oneself to the event without resisting; that is, both the act of submission and the undergoing of the event co-exist in time. As for the *willingly*

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admit sense, it would seem susceptible to allowing cases where the event admitted to could be understood as being prior to the admission. The event denoted by the gerund-participle would in such a case likely be an action-like event, as can be the case with the verb *admit*:

(73)　　He admitted to *stealing* the money.

The fact that in (24) *having no party identification* denotes a state favours however an interpretation of temporal simultaneity. Admitting, or recognizing, the truth of a state-like event's existence entails that the state exists at the time of the admission. Although no examples have been found to attest this, admitting to being in a state could theoretically correspond to a past state and thereby produce a priorness impression. For this to occur, there would have to be an adverbial time specification as in *He **later** admitted to being sick at the party* (unattested example). Without such adverbial time modification the default interpretation will naturally be that observed in (24), i.e. contemporaneity.

　　　　As regards control, the *willingly admit* sense of *volunteer* will logically only induce a subject control reading; after all, why admit to an event of which one is/was not the actualizer? The *willingly submit* sense should allow both subject and non-subject control. If the event submitted to is construed passively, then the person submitting to it will also be the passive subject of the event submitted to, as in (25). While no examples of non-subject control have been found with this sense of *volunteer*, non-subject control is attested with the verb *submit*, as in:

(74)　　The wife had filed for dissolution, and advised the
　　　　Father that she would abort the child if there was
　　　　any chance of his gaining custody of her. She did
　　　　agree to carry the child to term if the Father would
　　　　submit to putting the child up for adoption by a
　　　　third party, foreign to the marriage.

Here the overt realizer of *putting* is open to being interpreted as an entity other than the *father*. Examples of non-subject control, we might point out, are difficult to find, as the 'submit' sense of

volunteer is not frequent and these represent a sub-type of this sense. We do not wish however to rule out the possibility of such cases occurring.

React

As regards temporality, there is a general correspondence in the observed data between simultaneity and stative *to + -ing* complements, on the one hand, and priorness and action *to + -ing* complements on the other. A state which is reacted to will normally be understood as being contemporaneous with the reaction (although one could perhaps imagine a delayed reaction scenario in which someone reacts later to being in a potentially traumatic situation). On the other hand, an action which is reacted to will normally be understood as having taken place prior to the reaction, according to the classic "action-reaction" schema. As we have seen however in (30)-(31), even actions, under certain conditions, namely those where the complement denotes a sustained action, can imply a simultaneous temporal relation. This is possible since a reaction can also be construed as happening in response to an ongoing stimulus.

As regards control, the variability in readings observed with *react* is explicable by the fact that one can only react to states or situations of passivity of which one is naturally the subject. With actions, however, fluctuation in control readings is possible due to the fact that one can react to an action that is performed by oneself (26)-(27) or performed by someone else (32-34).

One final observation that is interesting to note is the absence of the infinitival construction with the verb *react*. This absence can be explained by the fact that *react*, by virtue of its lexical meaning, does not denote a movement towards the infinitive's event; that is, it cannot be conceived as leading to an event's actuality or actualization. This contrasts with *volunteer*, for example, whose lexical meaning implies a commitment to actualize something and also with *object*, a verb which will now be discussed.

Object

Object has been seen to occur with both the infinitive and gerund-participle, the latter being the more common use according to the corpus data. With the infinitive, the sense of *object* has been seen to correspond to 'refuse', i.e. the act of objecting is construed as a form of unwillingness to proceed to the actualization of the complement event. The occurrence of the infinitive construction with *object* is not surprising given the fact that this is in line with both the meaning of the infinitive and that of *object*: on the one hand, the infinitive causes *to* to be construed as a movement towards actualization; on the other, objecting to an event can be a sign of the objector's unwillingness to perform it, i.e. to actualize it.

As far as temporal relations are concerned, the variability observed with *to + -ing* comes as no surprise either. One can raise an objection to an event which is being discussed/proposed/considered as either a future course of action (35)-(36), a situation that is ongoing/contemporaneous at the time of the objection (42-44) or to something that has already occurred (45)-(46). The variability with regards to control is also not surprising. An objection can be raised with respect to something that the objector is supposed to do or is considering doing, or it can be raised with respect to a specific state he finds himself in. An objection can also quite naturally be raised with respect to an event undertaken by someone else other than the objector (47).

Incline and Tend

The verbs *incline* and *tend* have been seen to occur with both constructions, the *to*-infinitive being the more predominant choice among native speakers. The predominance of the infinitive can be explained by the fact that an inclination or tendency naturally lends itself to being construed as positively disposing the possessor of the inclination or tendency towards the actualization of the object of the inclination when the latter is an event. An inclination can also be construed as a leaning towards a certain position, hence the possibility of *to + ing*. This construal, as seen earlier, can be felt to be less assertive than the infinitive in certain contexts (56)-(57), (67)-(68). This is due to the fact that this

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construction does not denote an intent to actualize but rather a mere leaning towards a certain opinion/position/course of action/etc.

As for temporal relations, the relation of subsequence which occurs with both verbs can be explained once again through consideration of their lexical meaning. When one inclines/tends towards an event that is construed as a possible position/opinion/course of action, the event will necessary correspond to something prospective. As for control, the strict subject control reading observed in the data with the infinitive can be accounted for by the fact that inclining or tending towards the actualization of an event implies that the incliner or tender will be the actualizer of that event. However, because in usage with the -*ing to* is not construed as a movement towards actualization (which would make the possessor of the inclination the prospective actualizer of the complement's event), gerund-participe constructions also offer the possibility of a non-subject control reading (60 and 72).

Conclusion

The explanatory framework used previously in handling the contrast between Verb + *to* + infinitive vs. Verb + gerund-participle constructions has proven to be useful in terms of offering a better understanding of Verb + *to* + gerund-participle constructions. The constant subsequence and subject-control readings with the *to* + infinitive and the observed fluctuation of these readings with *to* + gerund-participle constructions in our small five-verb sample can be explained through a careful analysis of the semantics of each of the components involved and of the syntactic relations between them. As a result of the fruitfulness of the approach taken here there is no reason to believe that it could not be applied to the remaining vast array of English verbs that can be construed with both complement types. Of course, only through further research can our speculations be confirmed.

An especially interesting observation stemming from this study is the existence of two ways of conceiving the verb *object*. On one hand, an objection can be taken as a sign of refusal or unwillingness to move towards actualization, a construal calling

for the use of the *to*-infinitive. On the other hand, objecting can be conceived as making an event the target of an objection, in which case *object* does not denote a refusal to move to actualize an event, hence its construal with the *to* + *-ing* construction. The analysis becomes even more interesting when one compares *object* to a verb such as *react*, which can only be construed with the *to* + gerund-participle. Since reacting cannot be conceived as involving or implying any movement to actualization, its incompatibility with the *to*-infinitive is not surprising.

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