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# Modal readings of light verbs with *to*-infinitivals\*

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## 1. Introduction

This paper examines one type of configurationally determined meaning. Specifically, I defend the hypothesis that modality is not only expressed lexically, that is, by modal verbs or adverbs, but can arise syntactically, as the result of certain function words in specific configurations. This paper examines light verbs that receive modal readings due to their syntactic configuration and explores the factors that contribute to this configurationally determined interpretation.

To summarize the results at the beginning, I will argue that the modal interpretation of the light verbs *get*, *be*, and *have* followed by a *to*-infinitival is the result of the following factors: the underspecified lexical entries of the verbs, the morphological or lexical stativity of the light verb, the meaning of the relator *to*, and the aspectual type of the embedded predicate.

Section 2 presents the basic data on light verbs in modal constructions. Section 3 surveys the range of modal uses of *get* in English, making some comparisons with other Modal Light Verb (MLV) constructions. Section 4 takes a strictly compositional approach to the problem and shows how the separate meanings of the component parts combine to yield the observed interpretations. As a LV, the meaning of *get* is underspecified, and variation in its meaning is a function of the syntactic context. On the compositional approach to meaning assumed here, see Hoekstra 1994, Pustejovsky 1995, Barbiers 1995, and Jackendoff 1997, among others.

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# 2. Basic data on MLVs

English has at least the three modal constructions with get (1), be (2), and have (3).

- (1) get to
  - a. Sally's got to come home before midnight. (externally imposed obligation)
  - b. But her older brother Jim gets to come home later. (permission)
- (2)be to
  - a. John is to inherit the family home. (predestined future, 'supposed to')
  - b. What was I to do?

(possibility 'could')

- (3) have to
  - a. John has to go to summer camp. (externally imposed obligation)
  - b. It was late, so I had to leave. (internally imposed obligation)
  - c. The letter has to arrive by tomorrow. (non-subject-oriented obligation)
  - d. You have to be joking. (epistemic probability)

As get, be and have cannot be considered inherently modal verbs, the modal readings of (1)-(3) must arise compositionally. It seems that modal readings arise as a general pattern in English when the auxiliaries are followed by a to-infinitival. Interestingly, these patterns are found cross-linguistically as well, HAVE TO (4), BE TO (5), GET TO (6).

- (4) a. omdat Jan nog vijf boeken heeft te lezen voor morgen. (Dutch) because Jan still five books has to read before tomorrow 'because Jan still has to read five books before tomorrow' (obligation)
  - b. Jean a à faire cela. (French) (obligation) 'John has to do that'
  - c. Jean n'a qu'à acheter ce livre. (obligation) 'John just has to buy this book'
- (5) a. Heineken is niet te drinken. (Dutch) (possibility) Heineken is not to drink 'It is not possible to drink Heineken' / 'Heineken is undrinkable'
  - b. C'est encore à faire. (French) (obligation) 'that is still to be done'
  - c. John-ko seb khaa-naa hai (Hindi, Bhatt 1997) (obligation) John-DAT apple eat-GER be.PRS 'John has to eat the apple'
- (6) a. Får vi gå på bio i kväll? (Swedish) (permission) get we go.INF to movies tonight 'may we go to the movies tonight?'

b. Jag fick jobba över i går kväll. (obligation) got work.INF overtime last night 'I had to work overtime last night'

A basic observation and assumption made in this paper is that get, like have and be, is a light verb (LV). For in-depth discussion and defense of this hypothesis, see Gronemeyer 1999. The proposal to be considered here is that light verbs followed by to-infinitivals result in modal readings. Given the evidence in (1)-(6), the basic concern of this paper is why this should be.

# 3. Overview of the modal uses of get

#### 3.1 HAVE GOT ≠ GET

In American English at least, get enters into two modal constructions with rather different properties (7).

- a. Sally's got to come home before midnight. (externally imposed obligation)
  - b. But her older brother Jim gets to come home later. (permission)

In (7a), the HAVE GOT construction is interpreted as externally imposed obligation, while the example in (7b) expresses permission. This semantic difference is due to the temporal restrictions on the first of the two constructions. Comparing the tense paradigms in (8) and (9), we see that HAVE GOT is restricted to the affirmative present tense. On the other hand, get in (9) is acceptable in all tenses and can be negated.

- a. Sally has got to come home before midnight. present b. \*Sally will have got to come home before midnight. future/modal c. \*Sally had got to come home before midnight.
  - d. \*Sally is having got to come home before midnight. progressive e. \*Sally doesn't have got to come home before midnight. negated,
  - do-support f. %Sally hasn't got to come home before midnight. OK for have-raising dialect
- a. Recently, Sally's gotten to come home after midnight. present perfect
  - b. Sally would have gotten to come home after midnight. future/modal c. Sally had gotten to come home after midnight. past perfect
  - d. Sally is getting to come home after midnight. progressive
  - e. Sally hasn't gotten to come home after midnight. negated

The temporal restriction on HAVE GOT is perhaps not surprising given its morphological present perfect form. However, the construction does not refer to the present perfect in (8a), but rather to the present. I assume the logical definition of present perfect given in (10). This definition can be read as 'there holds a Consequent State CS of an event e at time t, and event e does not hold at time t'. If (8a) were a present perfect, it would have the interpretation 'Sally received an obligation which still obtains', but it does not. Instead it has present reference 'Sally has an obligation at Time of Utterance TU'.

(10)  $hold(CS(e,t)) \& \neg hold(e,t)$  (Giorgi & Pianesi 1997, among others)

Another difference between the two constructions is that they have different entailments in what seems to be the same tense; compare the examples in (11). HAVE GOT in (11a) expresses obligation, and the embedded traveling event is not yet completed. In contrast, *get* in (11b) denotes permission, and the embedded event is completed.

(11) a. I've got to travel a lot this year.

b. I've gotten to travel a lot this year.

A final diagnostic for distinguishing the two constructions is that HAVE GOT cannot receive a permission reading as in (1b). (11a) can only be read as expressing obligation and never permission as in (11b). The conclusion to be drawn from this section is that stativity distinguishes HAVE GOT from GET.

## 3.2 *(HAVE) GOT*

As HAVE GOT is not a present perfect, one may wonder what it is. Semantically, HAVE GOT is equivalent to *have to* and *must* in expressing obligation and epistemic probability; that is, it expresses the same range of modality. Compare the examples in (12) with those in (3) above.

(12) a. Sally's gotta be home by midnight. (externally imposed obligation) b. It's late, I've got to go now. (internally imposed obligation)

c. The letter's got to arrive by tomorrow. (non-subject oriented obligation)

d. You've got to be joking. (epistemic probability)

The examples in (12) express obligation and epistemic probability, i.e. universal quantificational force. In Gronemeyer 1999, I claimed that HAVE GOT is grammaticalized by analogy with *have to*, and that it is a frozen expression with a stative aspectual feature. Therefore, stativity makes HAVE GOT similar to the LVs *be* and *have*. The compositional approach to modality taken here predicts that they should show the same range of modality, in contrast to dynamic *get*. Comparing the interpretations in (12) with those in (2) and (3) shows that this is borne out in English at least. The stative LVs receive universal modal interpretations.

#### 3.3 Modal readings of get to

As we saw in (1) above and (11b), repeated here, *get to* receives a different modal interpretation, namely permission, cf. Kimball 1973 and Miller 1985.

#### (11b) I've gotten to travel a lot this year.

The default reading of (1b) and (11b) is permission. The concept of permission can be integrated into an analysis of modality by paraphrasing it as 'if one has permission to do something, one has received the possibility of doing it' (Hoekstra 1994). On this reading, permission expresses existential quantificational force. I propose that the default permission reading of *get* derives from its dynamicity. That is, *get* is lexically a dynamic verb, and for this reason, it expresses the dynamic modal reading of receiving a possibility. The other MLVs (*be* and *have*) are stative and therefore receive necessity or universal readings.

However, *get to* can denote obligation as well, as a function of the context. Compare the standard permission reading of *get to* in (13a) with the exceptional readings in (13b-d). In (13b-d), the obligation reading of *get* is contextually determined. By contextual determination, I mean that the reading is determined by our evaluation of the embedded event as good or bad.

(13) a. Why do you get to have all the fun
b. while I get to do all the worrying?
c. As a social worker, she gets to go to a lot of slums.
d. You get to live with it. (Miller 1985, citing a newspaper article on

Out of context, *get to* may seem ambiguous, as in (14). For the listener, however, the value of the speaker's evaluation is simply indeterminable.

(14) a. I get to go in a lot of churches. (HRH Duke of Edinburgh, cited in Austin 1998)

b. in working with these patients, the therapist eventually gets to do some at least private mulling over the possible meaning of a belch.

(Brown corpus)

Northern Ireland)

I propose that the obligation reading is due to the speaker's evaluation of the embedded event as negatively affecting the subject. The question remains then, how a negative evaluation bears on the interpretation of a modal or MLV. One could surmise that the modal force of the construction is underspecified and determined first contextually. However, this doesn't predict the default value to be permission. I adopt the stronger claim that *get to* always expresses existential quantificational force due to its dynamicity, but

that this can be overridden by a negative evaluation operator and the result is universal force.

This proposal is in line with other known cases where modals and quantifiers with existential force are interpreted instead with universal force. As an example, consider the lexical modals for possibility, Dutch mogen 'may' and Swedish fa 'get'; the default reading for both of these verbs is existential force. The sentences in (15) show that both may receive the universal, obligation reading as well, although here also a negative evaluation operator is required in the context as a trigger.

- (15) a. (Jan heeft zijn kamer niet opgeruimd.) Dus mag ik het weer doen. 'John has not cleaned up his room. So I get to do it again.' (obligation)
  - b. Jag fick jobba över i går kväll. (obligation) 'I got to work overtime last night'

# 4. Compositional analysis of get to

In this paper, I propose that the modal reading of get is due to the combination of the lexical entry for get, and the interpretation of the embedded VP. The latter includes both the functor to and the embedded infinitive. I'll discuss each of these in turn.

# 4.1 The lexical properties of get, and indirectly, have and be

Following previous work (Gronemeyer 1999), I assume that get is semantically light or underspecified. This implies that its interpretation is almost entirely determined by the surrounding context, i.e. compositionally. The lexicon provides the basic information that get is an aspectual variant of have, denoting ingressive aspect cf. (Hoekstra 1994; Gronemeyer 1999). This is shown by the different interpretations of the examples in (16). Have in (16a) denotes possession, and get in (16b) denotes the beginning of possession and can be paraphrased as 'come into possession'. (17) shows the interpretation of get with a nominal complement (a DP). This can be understood as consisting of a verbal core of possession together with an aspectual feature for ingression. I will refer to this meaning as 'ingressive + HAVE'.

- (16) a. John has a book.b. John gets a book (from Mary).
- (17) a.  $get + DP \rightarrow$  'onset of possession'  $\rightarrow$  ingressive + HAVE

Following work by Benveniste 1960 and Freeze 1992 on the relation between possession constructions and locatives, Kayne 1993 proposes the

syntactic decomposition of *have* in (17b). This decomposition in turn makes predictions about the underlying syntactic structure of *get*. Combining (17b) with (17a) we get the structure in (17c); see also Hoekstra 1994.

Moreover, the lexicon provides a semantic decomposition for *get*, giving its aspectual event structure. Pustejovsky 1988 argues that the aspectual properties of different verb classes account for systematic patterns of syntactic behavior. Within Pustejovsky's framework, the representation of the statitve verbs *be* and *have* is straightforward (cf. Pustejovsky 1988:23):

(18) a. be: 
$$[S e_{(x)}]_S$$
  
b. have:  $[S e_{at(x,y)}]_S$ 

The event structure for be says that there is an event e of x, and this event is a state; essentially, x is the predicate. For have, there is an event e of x being at y (i.e. y has x), and this event is a state. The predicate of the possession state is the prepositional relator AT.

Within Pustejovsky's framework, I propose (19) as the subevent structure for *get*. As *get* denotes the onset of possession, there is an implicit transition from one state of possession to another state of possession. The bracket notation in (19a) is equivalent to the tree structure in (19b).

(19) a. 
$$get: [T [S e_{at(x,y)}]_S [S^* e_{at(x,z)}^*]_S]_T$$
b.

$$T$$

$$S$$

$$S^*$$

$$at_{(book, Mary)}$$

$$at_{(book, John)}$$

(19) can be read as follows. The event structure of get is a transition T, consisting of two subevents, both of which are states. There is a transition from the state in which x is at y and the state in which x is at y. In this framework, one of the subevents is the head (indicated by \*) of the resulting transition. The head is the more prominent subevent and is linked to the Tense position T° in the syntax. In this case, the final state is the head, leading to an aspectual reading like achievements (e.g. die, with an event structure  $[T_{x}, e_{y}, e_{y},$ 

like achievements, but with a state instead of a process preceding the resulting transition.

Several important points can be made about the event structure for *get*. First, it is *underspecified*; that is, the structure only encodes the transition from one state to another. The meaning of the verb is thus malleable for the surrounding context. Second, it is *compositional*, since the structures of  $be \ [s \ e_{(x)}]_s$  and  $have \ [s \ e_{at(x,y)}]_s$  are component parts. Third, the right-headed structure accounts for the ingressive aspectual feature of *get*. Finally, there are obvious links with the syntactic decomposition of *get* proposed in (17).

Having explored the meaning of *get* with a nominal complement (20a), I now turn to its meaning with other complement types, as in (20b-d).

(20) a. $get +$	NP	'onset of possession'	(Mary got a book)
b.	PP	'movement resulting at end loca	ation' (Steve got up)
c.	AP	'entry into endstate, 'become'	(John got tired)
d.	VP	'modality/aspect'	(Josephine got to perform)

#### 4.2 Contribution of the embedded VP

The paradigm in (20) shows that the meaning of *get* is determined by the properties of its complement. Pursuing the compositional approach to meaning, we see that the embedded predicate (whether prepositional, adjectival or verbal) serves to fill in or specify the meaning of the LV *get*. We will now examine the interpretation of *get* with a verbal complement.

4.2.1 When get to is not modal. Up to now, the generalization has been that get followed by a to-infinitive results in a modal reading. However, this is only true when the embedded infinitive is dynamic, as in (1) above. Get to followed by an individual-level stative receives an aspectual interpretation of 'beginning of a state' or ingression, as in (21), with no associated modality. See also Brinton 1988 for mention of get as an ingressive aspectualizer.

(21) a. They were always trying to cheat you, so you got to expect it.

('begin to expect')

b. If you listen to their stories, you will get to feel about them as I do

('start to feel')

Interestingly, an embedded stative that can receive a stage-level interpretation (i.e. as a bounded event) results in a permission reading again, (22).

(22) a. Linda got to be a princess in distress.
b. Did you get to know the secret? (stage-level, permission)
(point-like, permission)

The examples in (21) and (22) may seem contradictory, but on closer examination, they are consistent with the rest of the analysis. A key observation is that individual-level statives force epistemic readings after lexical modals of permission. Consider the examples of this in (23).

(23) a. He may be blue-eyed (but I'm not sure) (\*permission, probability OK) b. May I be long-legged? (permission OK on stage-level reading only)

Unlike may, get is a dynamic verb (its event structure includes a transition), and the epistemic readings cannot arise. Logically, it is not possible to be granted permission to enter an unbounded state, as denoted by individual-level statives. Therefore, an aspectual reading of ingression is forced. In (22), get receives a permission interpretation because the embedded predicates can be given a bounded, stage-level interpretation. In (23), the embedded predicates cannot receive bounded readings, and  $get + VP_{state}$  is interpreted just like get + AP, that is 'become'.

The proposed event structure explains why *get* cannot be interpreted epistemically. The right-headedness of *get* signals a polarity transition, as discussed in ter Meulen 1995. By polarity transition, ter Meulen means a switch in the truth value of proposition p from the world of the speaker  $w_s$  to the possible developments expressed in  $w_p$ , such that  $\neg p \longrightarrow p$ . Barbiers 1995 argues that this switch in truth value is characteristic of non-epistemic modality. Due to its subevent structure as a transition, *get* cannot receive epistemic readings and is thus coerced into functioning as an ingressive aspectualizer.

4.2.2 What is the status of to? As the point of departure, I will assume with Duffley 1992 that to denotes the category of subsequence, that is, it expresses an 'after'-relation. This definition allows us to treat the 'infinitive marker' in the same way as the preposition to. The only difference between them is that we call to an infinitive marker when followed by a verbal form and a preposition when followed by a noun. Thus, the mental lexicon includes one to, a head  $X^{\circ}$ , and this head receives different interpretations depending on the properties of the complement. Specifically, it can be interpreted spatially as a preposition or temporally as Tense. For a theory of to occurring in  $T^{\circ}$ , see Stowell 1982.

As  $P^{\circ}$ , to can occur in dynamic (24a) or stative (24b) contexts, as determined by the selecting head, with slightly different interpretations. The verbs go and give in (24a) select dynamic complements, while seem and be in (24b) select stative complements.

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(24) a. We went to NY. Give it to me

(endpoint of a movement)

b. It seems to me that ...
She is like a mother to me

(location)

In stative contexts, to denotes a location without any implied movement. In dynamic contexts, the complement of to is interpreted as spatially or temporally 'after' the location and time of the matrix verb. To summarize, when to selects a nominal complement, it denotes either a location or the endpoint of a movement.

These interpretational possibilities are predicted to carry over to all occurrences of to. When followed by a verb, to projects as T°, since the LV get selects a TP complement. This TP can be dynamic as in (25a) or stative as in (25b), depending on the embedded infinitive.

(25) a. The children got to eat ice cream after dinner. b. We got to know our neighbors two years ago. (dynamic, permission) (stative, ingressive)

A dynamic to-complement is interpreted as subsequent to or unrealized with respect to the location and time of the matrix verb, i.e., to imposes a temporal ordering on two eventualities. Compare Stowell's 1982 view of to as signalling unrealized tense. Stative to-infinitivals denote the beginning of a state, analogous to the interpretation of location in (24b). The functor to serves to transmit the [± stative] feature of the embedded predicate to the light verb so that compositional interpretation can take place. This is summarized in (26).

# 5. Conclusions

This paper has offered some evidence from light verb constructions with toinfinitivals that modality can arise compositionally, as a result of syntactic
configuration. This is perhaps not so surprising. The non-finite complements
give rise to modality in other configurations as well, for instance in nominal
relatives like the person to ask is John 'the person you should ask', in toughconstructions like John is easy to please 'you can please John easily', and in
wh-infinitivals like John is wondering what to do 'what he can do'. One
similarity between these nominal and adjectival heads and the light verbs with
modal readings is their unspecified event structure, which is crucial to this

analysis. Other factors contributing to the modal interpretations of light verbs are the meaning of the relator *to* denoting subsequence, the stativity of the light verb, and finally the aspectual type of the embedded predicate as [±stative].

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