From V-*ing* Complementation[*]
Hiroaki Konno

1. Introduction

Verbs such as *prevent*, *keep*, *prohibit* and *forbid* constitute a syntactic class in that they take complements of the form [NP *from* V-*ing*] (hereafter "*from* V-*ing* complement"):

(1) a. He prevented her from rising, placing firm strong hands over her upper arms.

    b. It was uncomfortable, but the wood kept it from being cold.

    c. The first order prohibited the father from having any contact with the children and prohibited the mother from allowing the father to have contact with the children.

    d. His parents, who were strictly religious and puritanical, saw any kind of pleasure as the road towards hellfire and damnation and forbade Robert from going to parties, wearing bright clothes, or drinking alcohol.

<div align="right">(The British National Corpus (BNC)[1])</div>

A partial list of verbs which take *from* V-*ing* complements is given below.　For want of a better term, I shall call them "f-verbs." [2, 3]

(2)　　F-Verbs:

　　　ban, bar, deter, disallow, discourage, dissuade, forbid, inhibit, keep, prevent, prohibit, refrain, restrain, stop

Two interrelated questions naturally arise at this point:

(3) a. Does the fact that f-verbs constitute a syntactic class in that they take *from* V-*ing* complements have any semantic reflex?　In other words, do f-verbs constitute a semantic class?

    b. Why is it that f-verbs take *from* V-*ing* complements, complements of the same form?

The aim of this paper is to answer these two questions.　Section 2 empirically argues that there

---

[1] http://www.info.ox.ac.uk/bnc

[2] *Forbid* usually takes *to*-infinitive complements and whether it takes *from* V-*ing* complements or not is subject to idiolectal or dialectal variation (cf. GENIUS[3]).　However, I take it as an f-verb in this paper in the light of the fact that there are speakers who readily accept examples like (1d).

[3] In this paper, I shall concern myself only with transitive f-verbs and keep such intransitive f-verbs as *refrain* out of the discussion for simplicity.

is a significant semantic difference among f-verbs and they are divided into two semantic classes in terms of lexical decomposition (cf. Lakoff (1970), Dowty (1979) and Jackendoff (1990) among others): causative verbs incorporating negation and deontic verbs incorporating negation. The section ends with the conclusion that f-verbs do not constitute a semantic class. Section 3 argues that although f-verbs are divided into two semantic classes, the two are nevertheless cognitively related in terms of metaphor and metonymy (cf. Lakoff and Johnson (1980), Talmy (1985, 1988), Sweetser (1990), Goldberg (1995), Kövesces (2002) and Stefanowisch (to appear) among others), which accounts for why they take *from* V-*ing* complements, complements of the same form. In relation to these, this study also has two theoretical implications: one is that semantics and our knowledge of the world, i.e. cognition, are not always isomorphic; there can be a mismatch between them. The other is that generative grammar and cognitive grammar and therefore the constructs of the two are not necessarily mutually exclusive as generally assumed (cf. Lakoff (1987), Langacker (1987) and Yamanashi (2000) among others); rather, they complement each other (cf. Nakau (1994) and Newmeyer (1998) among others).

2. Two Classes of F-verbs

2.1. *Causative Verbs Lexicalizing Negation*

2.1.1. *Previous Studies*

F-verbs such as *prevent* and *dissuade* have been studied by many scholars such as Lakoff (1970), Dowty (1979), Ota (1980), Wierzbicka (1988), Jackendoff (1990) and Koenig and Davis (2001). These previous studies agree that *prevent* and *dissuade* are causative verbs ("causatives" for short) which imply negation; they entail that the events described in their *from* V-*ing* complements do/did not happen and belong to what Karttunen (1971) calls "negative implicatives." This, it seems to me, amounts to the claim that *prevent* and *dissuade* share the following semantic structure in terms of lexical decomposition, where irrelevant details are omitted (cf. Lakoff (1970:97), Dowty (1979:291) and Jackendoff (1990:131) among others):

(4)　　　　[CAUSE [NOT …]]

Verbs with the CAUSE function count as causatives, and those, or more precisely, predicates with the NOT function imply negation and belong to what is called "inherent negatives" (cf. Klima (1964)) or "adversative predicates" (cf. Linebarger (1987)).[4] Thus, verbs with the structure in (4) count as causatives lexicalizing negation.

If the analysis of *prevent* and *dissuade* by the previous studies is extended to the other

---

[4] Wierzbicka (1988) does not make use of the CAUSE function. She (1988:35) instead claims that "[t]he image of an intention being 'removed from' a person's mind" is crucial to the *from* V-*ing* complementation. As is clear from her use of the word *remove*, she also takes *dissuade* and *prevent* as causatives.

f-verbs, the following descriptive generalization about the *from* V-*ing* complementation suggests itself:

(5)   In order for a verb to take *from* V-*ing* complements, it must have the semantic structure [CAUSE [NOT …]].

The previous studies do not give enough evidence for this generalization.   What remains to be done is therefore to show that generalization (5) is empirically adequate.

2.1.2.   Inherent Negation

Let us consider whether f-verbs in fact lexicalize negation first.   There are three pieces of evidence in favor of the characterization of f-verbs as inherent negatives.   A first piece of evidence comes from dictionary definitions of f-verbs:

(6)   a.   deter: to deter someone from doing something means to make them *not* want to do it or continue doing it.

      b.   prevent: to prevent someone from doing something means to make it *impossible* for them to do it.

(COBUILD[3] [emphasis mine])

(7)   a.   inhibit: to make s[ome]b[ody] nervous or embarrassed so that they are *unable* to do s[ome]th[ing]

      b.   dissuade: to persuade s[ome]b[ody] *not* to do s[ome]th[ing]

(OALD[6] [emphasis mine])

Note that the definitions in (6) and (7) include negatives such as *not*, *impossible* and *unable*. As is clear from these definitions, speakers of English take f-verbs as verbs which imply negation.

A second piece of evidence lies in the fact that f-verbs include verbs to which the negative prefix *dis*- is attached:

(8)   John dissuaded Harry from leaving.   (Lakoff (1970:96))
         (cf. He persuaded her to record a version of the song… (BNC))

(9)   …women are disallowed from participating in most public decision...
         (cf. Every two months he was allowed to send 20 kilos of goods home to his family.)

(BNC)

(10)   …a campaign to discourage children from smoking.
         (cf. We want to encourage people to go fishing…)

(COBUILD[3])

The affixation of *dis*-, which changes the polarity of a verb from positive to negative, causes a verb to take *from* V-*ing* complements.

The final piece of evidence in this context comes from the licensing of negative polarity items (abbreviated as NPI) by f-verbs (cf. Lakoff (1970)).

63

(11) a. * I think I could ever trust you.

  b.   I don't think I could ever trust you.

<div align="right">(Hoeksema (2000:115))</div>

(12) a. * Mary gave John a red cent.

  b.   Mary didn't give John a red cent.

(13) a. * Mary budged an inch.

  b.   Mary didn't budge an inch.

(11)-(13) show that the adverb *ever*, the NP *a red cent* and the VP *budge an inch* must be in the scope of negation; namely, they function as NPIs. If f-verbs in fact lexicalize negation as generalization (5) claims, it is predicted that they allow these NPIs in their complements. Interestingly, this prediction is borne out, as the following examples show:

(14) a.   The church council banned Tom from ever preaching again.

  b.   Jack barred Nancy from ever working for his company again.

  c.   His parents forbade Robert from ever going to parties.

  d.   The teacher's stern scowl dissuaded Nancy from ever asking such a silly question.

(15)   The doctor kept/prohibited/prevented/restrained Tom from donating a red cent to the hospital.

(16) a.   The penalty barred/deterred me from budging an inch.

  b.   The teacher kept/prohibited/prevented/restrained the student from budging an inch.

As is clear from the fact that all the sentences in (14)-(16) are acceptable, f-verbs allow NPIs in their complements.   Therefore, it seems highly likely that f-verbs function as negatives; that is, they lexicalize negation.[5]

2.1.3.   Causative Aspect

   As for the characterization of f-verbs as causatives, there is also strong empirical evidence for it.   Jackendoff (1990:131) points out the fact that *Harry prevented Sam from going away* entails that the event described in the *from* V-*ing* complement, i.e. Sam's leaving, did not happen and inserting the adverb *unsuccessfully*, which cancels the entailment, results in a contradiction:

(17)   * Harry unsuccessfully prevented Sam from leaving.   (Jackendoff (1990:131))

The following are also in support of the characterization, showing that *prevent*, *dissuade* and *keep* entail that the events described in their *from* V-*ing* complements do/did not happen:

---

[5] Some f-verbs (marginally) allow NPIs in object position while others do not:

(i) a. ? The teacher prohibited anyone from interrupting his class.

  b. * John dissuaded anyone from seeing Harry.

<div align="right">(b from Lakoff (1970:96))</div>

But this is irrelevant to the main subject of this paper.   I will not pay any further attention to it.

(18)　　*　He prevented her from speaking aloud, but she shouted to the audience.

(Akashi (2002))

(19)　　*　The teacher dissuaded/kept the student from budging an inch, so when he moved anyway, he was sent out of the room.

In the above examples the clauses introduced by *but* and *when* assert that the events described in the *from* V-*ing* complements, i.e. her speaking aloud and the student's moving, respectively, did occur, which is in contradiction with the lexical entailment of *prevent*, *dissuade* and *keep* that the events described in their *from* V-*ing* complements do/did not happen.　This is why the sentences in (18) and (19) are judged to be unacceptable.　These cases argue for the claim that f-verbs are causatives.

To recapitulate, the observations so far appear to be in support of the analysis by the previous studies and hence generalization (5) that f-verbs are causatives incorporating negation.

2.1.4.　*Problematic Cases*

In so far as f-verbs like *prevent*, *dissuade* and *keep* are concerned, the generalization in (5) appears to be correct; they in fact seem to serve as causatives lexicalizing negation.　But the case is not as simple as that; a closer look reveals another class of f-verbs, which has been overlooked by the previous studies and therefore generalization (5) does not accommodate.

There are f-verbs which do not entail that the events described in their *from* V-*ing* complements do/did not happen.　These f-verbs include such verbs as *forbid*, *prohibit* and *bar*. Interestingly enough, these f-verbs only implicate, not entail, that the events described in their *from* V-*ing* complements do/did not happen; the implicature is readily defeasible:

(20)　a.　The teacher prohibited/forbade the student from budging an inch, so when he moved anyway, he was sent out of the room.[6]

　　　b.　The law prohibits people under 20 from drinking, but at private parties they are able to drink undetected by the law.

　　　c.　Jack barred Nancy from every working for his company again, but she appealed over his head to the managing director, who reinstated her.

In (20) the clauses introduced by *when*, *but* and *who* assert that the events described in the *from* V-*ing* complements, i.e. the student's moving, the young's drinking and Nancy's working for Jack's company, respectively, do/did occur.　If generalization (5) were correct, all the cases in (20) would sound contradictory.　For generalization (5) wrongly predicts that all f-verbs would be causatives lexicalizing negation and therefore entail that the events described in their *from* V-*ing* complements do/did not happen.　The examples in (20) are, however, without any contradiction and readily acceptable.　Thus, these cases strongly argue against the

---

[6] Wierzbicka (1988:41) also points out that *forbid* does not have the entailment although she does not take it as an f-verb.

generalization in (5).

In view of the above fact that there are f-verbs that do not entail that the events described in their *from* V-*ing* complements do/did not happen, one might modify generalization (5) and claim that f-verbs are divided into (i) causatives lexicalizing negation which entail that the events described in their *from* V-*ing* complements do/did not happen, and (ii) those which are unmarked with respect to the outcome of causation and only implicate that the events described in their *from* V-*ing* complements do/did not happen (cf. Jackendoff (1990:130ff.)). Hence, f-verbs like *prevent* would belong to class (i) and those like *forbid* to class (ii). This dichotomy would correctly capture the fact that f-verbs like *forbid* do not entail that the events described in their *from* V-*ing* complements do/did not happen (cf. (20)) while those like *prevent* do (cf. (17)-(19)).

I, however, agree with approaches along these lines only in considering all f-verbs to be inherent negatives and such f-verbs as *prevent* to be causatives lexicalizing negation; I disagree that all f-verbs are causatives and their difference lies only in whether or not they entail that the subject succeeds/succeeded in causing the events described in their *from* V-*ing* complements not to happen. For it seems to me that approaches of this kind are problematic, both on conceptual and empirical grounds: (i) they merely "encode" the difference among f-verbs with respect to the entailment and do not "explain" what derives the difference, and (ii) as will be shown below, there is a semantic gulf between f-verbs like *prevent* on the one hand, and those like *forbid* on the other, which has a lot of grammatical ramifications besides what has been observed (cf. (17)-(20)) and cannot be accounted for by merely taking all f-verbs as causatives lexicalizing negation.

I conclude from these considerations that any approaches along these lines are untenable and that f-verbs like *forbid* are not causatives lexicalizing negation.

2.2. Deontic Verbs Lexicalizing Negation

2.2.1. Proposal

If such f-verbs as *forbid* and *prohibit* are not causatives lexicalizing negation, then to what semantic category do they belong? In order to get a clue to this important question, it is convenient to observe how English dictionaries define them. Let us first look at the following dictionary definitions of *forbid*:

(21) a. forbid: if you forbid someone to do something, or if you forbid an activity, you *order* that it must *not* be done. (COBUILD[3] [emphasis mine])

b. forbid: to *order* s[ome]b[ody] *not* to do s[ome]t[hing]

(OALD[6] [emphasis mine])

Note here that the definitions of *forbid* in (21) include *order*. As Palmer (1986) argues, *order* belongs to deontic verbs (hereafter "deontics" for short), which express the will or desire of the subject. It may, therefore, safely be inferred that speakers of English regard *forbid* as a deontic

lexicalizing negation from the fact that the definitions of *forbid* in (21) include *order* and *not*. The following are f-verbs regarded as semantically similar to *forbid*:

> (22) a. prohibit: if a law or someone in authority prohibits something, they *forbid* it or *make* it *illegal*. (COBUILD³ [emphasis mine])
>
> b. bar: if someone is barred from a place or from doing something, they are officially *forbidden* to go there or to do it. (COBUILD³ [emphasis mine])
>
> c. ban: to *forbid* s[ome]b[ody] to do s[ome]th[ing], go somewhere, etc., especially officially (OALD⁶ [emphasis mine])

As indicated by the paraphrases of *prohibit*, *bar* and *ban* into *forbid* in (22), speakers of English seem to take them as deontics lexicalizing negation, too. I introduce the function WANT in order to represent the deontic aspect of f-verbs like *forbid* and *prohibit* and propose that irrelevant details omitted, they have the following semantic structure:

> (23) [WANT [NOT …]]

Recall here the fact that f-verbs which count as deontics lexicalizing negation do not entail that the events described in their *from* V-*ing* complements do/did not happen, as shown by the examples in (20). The approach ventured in the preceding subsection merely encodes the property with the stipulation that they are causatives lexicalizing negation that do not have the entailment, which does not give any satisfactory account for the fact. By contrast, it is possible to offer a principled account for why they do not have the entailment if they are regarded as deontics lexicalizing negation. The point is that they focus on the desire of the subject that the events described in their *from* V-*ing* complements not occur, not on the results of the actions they denote; therefore, as far as those f-verbs which count as deontics lexicalizing negation are concerned, it does not matter whether the subject actually causes/caused the nonoccurrence of the events described in their *from* V-*ing* complements. This is the reason why the sentences in (20) are without any contradiction and readily acceptable. As for the question why deontic f-verbs have the implicature, it will be considered in Section 3.

2.2.2. Inherent Negation

Let us proceed to consider whether the characterization of f-verbs like *forbid*, *prohibit* and *bar* as inherent negatives has any empirical support. Remember that the f-verbs in question allow such NPIs as *ever*, *a red cent* and *budge an inch* in their complements:

> (24) a. His parents forbade Robert from ever going to parties. (=(14c))
>
> b. The doctor prohibited Tom from donating a red cent to the hospital. (=(15))
>
> c. The penalty barred me from budging an inch. (=(16a))

These cases, together with the dictionary definitions in (21) and (22), argue for the characterization of them as inherent negatives. Also note that the f-verbs in question share this property with those like *prevent* and *dissuade*; both serve as inherent negatives.

2.2.3. Deontic Aspect

The characterization of f-verbs like *forbid* as deontics is also empirically supported, which is concerned with the licensing of present subjunctive clauses ("present subjunctives" for short). In Konno (2002) I argued that present subjunctives in present-day English must describe those situations which are thought to be/have been wanted or intended by the subject (or the speaker); they are licensed via deontic modality.   If there are in fact f-verbs which count as deontics, it is naturally predicted that they take present subjunctives.   This is in fact the case:

(25) a.   God/Heaven forbid that he leave because of me![7]

b.   God prohibit that any of us - because of the sometimes hard admonitions of the Bible, admonitions that are meant to lead us to life - be offended because of them and like the "disciples" in John chapter 6, withdraw from the Truth, and walk no longer in it.

(26)   The king forbade that his subjects attend Moslem services.

The fact that *forbid* and *prohibit* take present subjunctives in (25) and (26) strongly argues for my proposal that there are f-verbs which count as deontics.

As easily predicted, there are no f-verbs that count as causatives and take present subjunctives:

(27) a. * God/Heaven prevent that he leave because of me!

b. * We dissuaded her that she change the date of the meeting.

The approach I am advocating here gives an elegant account for this fact, too.   As argued in 2.1., *prevent* and *dissuade* count as causatives, not deontics; accordingly, they fail to fulfill the licensing condition for present subjunctives by Konno (2002) to start with.

As has been shown, it is not unreasonable to assume that there are f-verbs which count as deontics lexicalizing negation.

2.3.   More on the Difference between the Two Classes of F-verbs

If the dichotomy of f-verbs in terms of the semantic structures [CAUSE [NOT …]] and [WANT [NOT …]] is on the right track, it is predicted that the two types of f-verbs behave differently with respect to intentionality.   Before continuing, a difference should be noted between a physical act of causing and a mental act of wanting.   An act of causing is significantly different from that of wanting with respect to intentionality; the former does not focus on the intention of the subject while the latter directly focuses on it.   It is therefore possible to say that one causes/caused a state of affairs with or without the intention to do so. This is grammatically reflected in the fact that the verb *cause* is compatible with both the adverbs *intentionally* and *unintentionally*:

---

[7] Note that the main clauses are also in the present subjunctive mood in (25) because of the deontic function of the construction, i.e. to make a wish described by the whole sentence (cf. Takamasu (2000) among others).

(28) a.   The dean intentionally caused campus troubles.

     b.   The dean unintentionally caused campus troubles.

In contrast, it is redundant to say that one wants/wanted a state of affairs with intention and it is contradictory to say that one wants/wanted a state of affairs without intention.　This also has grammatical reflexes; the verb *want* is compatible with neither *intentionally* nor *unintentionally*:

(29) a. * The dean intentionally wanted campus troubles.

     b. * The dean unintentionally wanted campus troubles.

The difference between an act of causing and that of wanting in intentionality predicts that the same difference lies between f-verbs which count as causatives incorporating negation and those which count as deontics incorporating negation.　Put differently, it is predicted that with respect to compatibility with intentional adverbs, the former behave in the same way as *cause* does in (28) and the latter as *want* does in (26); the former are compatible with both *intentionally* and *unintentionally* while the latter are incompatible with either of them.　This prediction is borne out as the following examples show:

(30) a.   The teacher intentionally prevented/kept Harry from keeping his appointment.

     b.   The teacher unintentionally prevented/kept Harry from keeping his appointment.

(31) a. * The teacher intentionally prohibited/barred Harry from leaving.

     b. * The teacher unintentionally prohibited/barred Harry from leaving.

In this connection, it is also predicted that f-verbs which count as causatives lexicalizing negation readily accept inanimate subjects while those which count as deontics lexicalizing negation do not.　For an inanimate object lacks will.　This is in fact the case, too, as shown in the following:

(32) a.   A huge trailer truck prevented/kept Tom from seeing what was happening across the road.

     b.   A huge trailer truck *prohibited/?barred Tom from seeing what was happening across the road.

It might be objected that there are cases in which f-verbs that count as deontics incorporating negation allow inanimate subjects:

(33) a.   The law prohibits people under 20 from drinking.

     b.   Regulations bar attorneys from socializing with clients.

Note , however, that in the examples above the subject NPs metonymically evoke the existence of some humans which deliberately framed the law and regulations.　Thus, the subject NPs in (33) are not truly inanimate.[8, 9]

---

[8] I owe part of the discussion to Eleanor Olds Batchelder (personal communication).

These observations give us further justification for the dichotomy of f-verbs in terms of the semantic structures [CAUSE [NOT …]] and [WANT [NOT …]].   Also note that merely taking all f-verbs as causatives lexicalizing negation cannot accommodate these facts at all.   For it overlooks the difference between the two classes of f-verbs in intentionality.

2.4. Summary

From the discussion so far, it is probably safe to conclude that f-verbs are divided into two types: those with the semantic structure [CAUSE [NOT …]], i.e. causatives lexicalizing negation, and those with the semantic structure [WANT [NOT …]], i.e. deontics lexicalizing negation.

Taking this into consideration, it is possible to refine generalization (5) as in the following:

(34)   In order for a verb to take *from* V-*ing* complements, it must have either of the semantic structures [CAUSE [NOT …]] or [WANT [NOT …]].

Now I am in a position to answer one of the questions raised at the outset of this paper: Do f-verbs constitute a semantic class?   My answer to this is an unambiguous no.

Before proceeding further, it should be pointed out that generalization (34) correctly predicts not only what verbs take *from* V-*ing* complements but also what verbs do not.   Let us consider, for example, the verbs *allow* and *deny*.   They do not count as an f-verb as shown below:

(35)   * The teacher allowed the student from dancing.

(36)   * Nancy denied Tom from being smart enough to get out of the trouble.

Let us consider why *allow* does not take *from* V-*ing* complements first.   According to generalization (34), all f-verbs are inherent negatives.   With this in mind, observe the following:

(37) a.   * Tom allowed Nancy to ever preach.

      b.   * The doctor allowed Nancy to donate a red cent to the hospital.

      c.   * The teacher allowed the student to budge an inch.

The fact that *allow* does not allow such NPIs as *ever*, *a red cent* and *budge an inch* in its complement shows that it does not lexicalize negation; it does not qualify as an f-verb, which results in the ungrammaticality in (35).

Let us turn to the reason why *deny* does not take *from* V-*ing* complements.   As the following example shows, *deny* allows NPIs in its complement and therefore counts as an inherent negative:

---

9 It seems clear that my informant takes *prohibit* as an f-verb which counts as a deontic lexicalizing negation. But a lot of dictionaries say that it is synonymous with both *forbid* and *prevent*, and used in the latter sense, it allows inanimate subjects even if they do not metonymically evoke any existence of humans:

(i)   The high cost of equipment prohibits many people from taking up this sport.   (OALD[6])

Manabu Kusayama (personal communication) has pointed out to me that *prohibit* appears to be polysemous in that it behaves in the same way as both f-verbs which count as deontics lexicalizing negation and those which count as causatives lexicalizing negation.   What then derives the duality?   Although this is an interesting question, I will leave the task for future research.

(38)   Fred denied ever having had an affair with Edna.   (Hoeksema (2000:116))

In view of this fact, it might first appear that *deny* qualifies as an f-verb.   What is of relevance here is, however, that *deny* counts as an epistemic verb (cf. Palmer (1986)) in that to deny something is to state that it is not true, i.e., it expresses the subject's opinion about the truth of a proposition (cf. Ota (1980)).   Thus, to deny something has nothing to do with to cause something not to occur or to want something not to occur; *deny* counts as neither a causative lexicalizing negation nor a deontic lexicalizing negation, which yields the ungrammaticality in (36) according to generalization (34).

In this way, the dichotomy of f-verbs in terms of the semantic structures [CAUSE [NOT …]] and [WANT [NOT …]] accommodates all the cases observed so far and hence generalization (34) seems to be the right one with respect to the *from* V-*ing* complementation.

3.   Relation between the Two Classes of F-verbs

In the preceding section, I argued that f-verbs are divided into two types and hence do not constitute a semantic class.   The analysis, though it answers the question whether f-verbs constitute a semantic class, does not provide any answer to the other of the questions raised at the outset of this paper: Why is it that f-verbs take *from* V-*ing* complements, complements of the same form?   The next task is therefore to investigate what causes the two independent classes to take *from* V-*ing* complements.

3.1.   Metaphorical Linkage: From Causatives Lexicalizing Negation to Deontics Lexicalizing Negation

It is generally assumed that there holds a metaphorical relation between physical phenomena and psychological and social phenomena (cf. Talmy (1985, 1988), Sweetser (1990) among others).   According to Sweetser (1990) and Kövesces (2002), this is because our knowledge of the world contains the metaphor MIND AS BODY or INTERNAL IS EXTERNAL, which conceptualizes the less physical in terms of the more physical or the internal in terms of the external; we tend to understand what is more abstract in terms of what is more concrete.

With this in mind, let us now move on to the relation between the two classes of f-verbs. Interestingly, f-verbs which count as causatives lexicalizing negation describe events in the external or real world while those which count as deontics lexicalizing negation describe events in the internal or possible world.   The metaphor INTERNAL IS EXTERNAL naturally leads to the assumption that there holds a metaphorical relation between them, as schematized in the following:

(39)   Metaphorical Relation between the Two Classes of F-verbs:

Source Domain: [CAUSE [NOT …]]

$$\downarrow \text{MIND AS BODY/INTERNAL IS EXTERNAL}$$

Target Domain: [WANT [NOT …]]

Notice here that the relation is asymmetric; the direction of the metaphorical linkage is from f-verbs which count as causatives lexicalizing negation to those which count as deontics lexicalizing negation.   This is because of the general tendency for what is more concrete to serve as the basis for understanding what is more abstract as pointed out above.

An argument in support of the claim that the two classes of f-verbs are metaphorically related comes from Talmy's (1985, 1988) observation about the verbs *prevent* and *forbid*.[10] Based on the notion of force dynamics, "a mode of construing the world in terms of entities interacting with respect to force (Talmy (1988:49))," Talmy claims that the two verbs share the following force dynamic information: the subject, being a barrier, exerts a force against the object's and the force of the former is stronger than that of the latter.   What is especially of note here is that *prevent* belongs to f-verbs which count as causatives lexicalizing negation and *forbid* to those which count as deontics lexicalizing negation.   It therefore seems reasonable to apply Talmy's analysis to the two classes of f-verbs and assume that they also share the above force dynamic information; they constitute a force dynamic class.[11]

As Talmy (1985:293) himself claims, "[the force dynamic system] incorporates schematic conceptual models of physical phenomena, which, by analogy, it extends to psychological and social phenomena." (Note that this is in line with what I have pointed out above.)   Therefore, it is possible to take the sharing of the force dynamic information as a consequence of metaphorical extension: the force dynamic information of physical phenomena is metaphorically mapped onto psychological and social phenomena, which results in the similarity between the two classes of f-verbs in terms of force dynamics.   This gives us justification for the claim that the two classes of f-verbs are metaphorically related.

Given the metaphorical relation between the two classes of f-verbs, it is possible to account for why both of them take *from* V-*ing* complements: it is because they are cognitively, or more precisely, metaphorically related to each other; they constitute a cognitive class via the metaphor INTERNAL IS EXTERNAL.   The metaphorical linkage causes them to take complements of the same form.

---

[10] Talmy treats *forbid* not as an f-verb but as a verb which take *to*-infinitive complements.

[11] The force dynamic information of f-verbs has a certain interpretive reflex.   As pointed out by Chomsky (1972), Wierzbicka (1988), Horn (2001) and others, *dissuade,* for example, "presupposes some sort of intention on the part of the person dissuaded (Chomsky (1972:143))."   As pointed out above, not only the subject but also the object of f-verbs have force.   Therefore, it is possible to consider the intention of the object of *dissuade* to be a manifestation of the force of the object.

Recall here the fact pointed out in Section 2 that f-verbs which count as deontics lexicalizing negation implicate that the events described in their *from* V-*ing* complements do/did not happen. Given the metaphorical linkage, it is also possible to account for this fact: because of the metaphor INTERNAL IS EXTERNAL, wanting something not to happen or someone not to do something is regarded as similar to, but not the same as, causing something not to happen or someone not to do something. Thus, f-verbs which count as deontics lexicalizing negation do not entail but implicate that the events described in their *from* V-*ing* complements do/did not happen.

3.2. Metonymic Linkage: From Deontics Lexicalizing Negation to Causatives Lexicalizing Negation

There is another linkage between the two classes of f-verbs besides the metaphorical one.

When one causes someone to do something or something to happen, he/she wants him/her to do it or it to happen in the usual, unmarked cases. (Note, however, that this is not necessarily the case (cf. 2.3.).) This is, though indirectly, supported by the following remark by Jackendoff (1990:129):

> When a verb is unmarked for volitionality..., an animate subject is *preferably* interpreted as volitional, although this preference is easily overridden by other information.   [emphasis mine]

The following example also illustrates the point:

(40)   Because John wanted campus troubles, he caused them.

According to Hirose (1991), a sentence-initial *because*-clause usually describes what is thought to be the cause of that effect which is described in the main clause; (40) describes a situation in which John's wanting campus troubles was the cause of his causing them. Thus, it follows from the remark by Jackendoff and the acceptability of the example in (40) that an act of wanting is (usually) regarded as a precondition for that of causing.

By contrast, an act of causing is not regarded as a precondition for that of wanting:

(41)   * Because John caused campus troubles, he wanted them.

The sentence in (41) describes a situation in which John's causing campus troubles was the cause of his wanting them. The fact that (41) is unacceptable shows that an act of causing does not count as a precondition for that of wanting.

Taking these into consideration, it can be said that an act of wanting (usually) counts as part of that (or an event) of causing in that the former is viewed as a precondition for the latter, but not vice versa. This is schematized as follows:

(42)

```
┌─  X causes Y  ─┐
        …
    X wants Y
        …
└─              ─┘
```
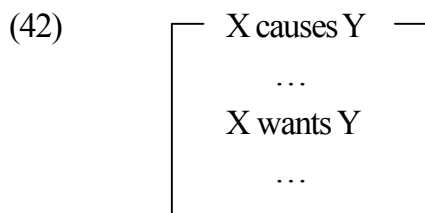
As the diagram shows, there holds a part-whole relation between an act of causing and that of wanting.   Put differently, the two acts in question are connected via the metonymy THE PART FOR THE WHOLE (cf. Lakoff and Johnson (1980), Kövecses (2002) and Stefanowitch (to appear) among others).   Notice here that the relation is asymmetric; the direction of the metonymic linkage is from an act of wanting to that of causing.   For the former counts as a precondition for the latter as shown by the acceptability of the example in (40), but not vice versa as illustrated by the unacceptability of the example in (41).

The abstract cognitive model for causation in (42) leads naturally to an assumption that f-verbs which count as causatives lexicalizing negation and those which count as deontics lexicalizing negation are also metonymically linked, as schematized in the following:

(43)   Metonymic Relation between the Two Classes of F-verbs:

```
┌─  [CAUSE [NOT …]]  ─┐
          …
      [WANT [NOT …]]
          …
└─                  ─┘
```
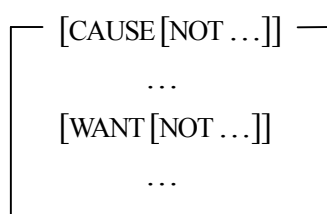
Given this metonymic relation between the two classes, it is possible to account for why they take *from* V-*ing* complements; it is because they are cognitively, or more precisely, metonymically related to each other.   The metonymic linkage, together with the metaphorical linkage, causes them to take complements of the same form.

Recall here again the fact that f-verbs which count as deontics lexicalizing negation implicate that the events described in their *from* V-*ing* complements do/did not happen.   The metonymic linkage between the two classes of f-verbs accounts for this fact, too: because wanting something not to happen or someone not to do something counts as part of causing something not to happen or someone not to do something, the former metonymically evokes or activates the whole model in (43) and hence implicates the result of causation, i.e. that the events described in their *from* V-*ing* complements do/did not happen.

3.3.   Summary

I have argued that from a cognitive perspective the two classes of f-verbs are closely related in that they are linked via both metaphor and metonymy.[12]   This conclusion is

---

[12] My judgment on closeness is based on an intuition that the more the number of linkages between two (or more) entities, the closer the relation between them.   Hiromistu Akashi (personal communication) has pointed out

summarized into the following schema:

(44)   Network of F-verbs:
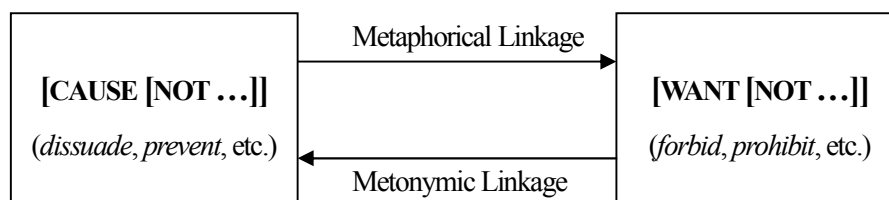
In the above schema, the boxes indicate that f-verbs are divided into those which count as causatives lexicalizing negation and those which count as deontics lexicalizing negation, and the arrows that the two classes are both metaphorically and metonymically connected and that the directions of the metaphorical and metonymic linkages are from f-verbs which count as causatives lexicalizing negation to those which count as deontics lexicalizing negation and from f-verbs which count as deontics lexicalizing negation to those which count as causatives lexicalizing negation, respectively.   As the schema shows, our semantic knowledge distinguishes f-verbs into two classes, which has a lot of grammatical ramifications as observed in Section 2.   But human cognition reconciles the difference between the two and causes them to take *from* V-*ing* complements, complements of the same form.   Thus, in one sense, they are different, but, in another sense, they are the same.

Now, I am in a position to answer the question why it is that both classes of f-verbs take *from* V-*ing* complements: it is because they are cognitively related to each other via metaphor and metonymy.[13, 14]   This is the whole picture of the *from* V-*ing* complementation.

The conclusion schematized in (44) has two implications.   One is theoretical: as far as the *from* V-*ing* complementation is concerned, semantics (or more generally, grammar) does not correspond straightforwardly to cognition or vice versa in the sense that the two semantic classes of f-verbs constitute a single cognitive class; there is a mismatch between semantics and cognition.[15]

The other is methodological: in order for any approach to the *from* V-*ing* complementation to be successful and to accommodate all the grammatical facts pointed out above, the following three machineries must be available: (i) lexical decomposition, which owes its origin to generative grammar, nicely distinguishes the two classes of f-verbs and

---

to me that it might be the case that one of the linkages above should be dispensed with.   This problem calls for further consideration.

[13] If my account is on the right track, the following hypothesis might obtain: the more cognitively related some verbs are, the more likely it is that they take complements of the same form.   This, however, calls for further consideration.

[14] Approaches along these lines would account for why both *cause* and *want*, for example, take *to*-infinitive complements although I shall leave the task for future research.

[15] I am grateful to Manabu Kusayama for his insightful comments, which have helped me to clarify the point.

accounts for the various grammatical facts observed in Section 2, (ii) metaphor and (iii) metonymy, both of which take their origins from cognitive grammar, integrate the two differentiated classes and give an explanation for why both of the classes take *from* V-*ing* complements.　　Thus, it seems reasonable to assume that the generative and cognitive constructs are not incompatible as oil and water.　　Rather, they have their own advantages and complement each other (cf. Nakau (1994) and Newmeyer (1998) among others).　　Note that this is against the general assumption that generative grammar and cognitive grammar, and therefore the constructs of the two are mutually exclusive since "cognitive grammar is offered as an alternative to the generative tradition (Langacker (1987:4f.))" (cf. Lakoff (1987) and Yamanashi (2000) among others).

4.　Concluding Remarks

I showed through a detailed examination of the semantics of f-verbs (i) that they are divided into two semantic classes, i.e. those with the semantic structure [CAUSE [NOT …]] and those with the semantic structure [WANT [NOT …]], (ii) that they are both metaphorically and metonymically linked, and (iii) that the linkages give an explanation for why both of them take *from* V-*ing* complements.

I also argued from theoretical and methodological perspectives that the *from* V-*ing* complementation counts as a case in which (i) semantics and cognition do not correspond straightforwardly to each other and (ii) generative and cognitive approaches to grammar complement each other.

REFERENCES

Akashi, H. (2002) "Syuhenteki na Nijyumokutekigokobun ni tuite [On Peripheral Double Object Constructions]," paper read at the 138th monthly meeting of the Tsukuba English Linguistics Colloquium held at the University of Tsukuba on May 30, 2002.

Chomsky, N. (1972) *Studies on Semantics in Generative Grammar*, Mouton, The Hague.

Collins COBUILD English Dictionary (3rd ed.) (2001) HarperCollins, Glasgow [COBUILD[3]].

Dowty, D. R. (1979) *Word Meaning and Montague Grammar*, Reidel, Dordrecht.

Goldberg, A. E. (1995) *Constructions:　A Construction Grammar Approach to Argument Structure*, University of Chicago Press, Chicago.

Hirose, Y. (1991) "On a Certain Nominal Use of *Because*-Clauses:　Just because *Because*-Clauses Can Substitute for *That*-Clauses Does Not Mean That This Is Always Possible," *English Linguistics* 8, 16-33.

Hoeksema, J. (2000) "Negative Polarity Items:　Triggering, Scope and C-Command," Horn, L. R. and Y. Kato (eds.), *Negation and Polarity:　Syntactic and Semantic Perspectives*, Oxford University Press, Oxford.

Horn, L. R. (2001) *A Natural History of Negation*, CSLI Publications, Stanford.

Jackendoff, R. (1990) *Semantic Structures*, MIT Press, Cambridge, Mass.

Konno (2002) "*From* V-*ing* Complementation," *Tsukuba English Studies* 21, 61-77.

Karttunen, L. (1971) "Implicative Verbs," *Language* 47, 340-358.

Klima, E. S. (1964) "Negation in English," Fodor, J. A. and J. Katz (eds.), *The Structure of Language*, 246-323, Prentice-Hall, Englewood Cliffs.

Koenig, J.-P. and A. R. Davis (2001) "Sublexical Modality and the Structure of Lexical Semantic Representations," *Linguistics and Philosophy* 24, 71-124.

Konno, H. (2002) "Gendai-Eigo niokeru Kateihogenzai no Imi/Goyoronteki Ninkajyoken [A Semantic/Pragmatic Licensing Condition for Present Subjunctives in Present-Day English]," *JELS* 19, 41-49.

Kövecses, Z. (2002) *Metaphor: A Practical Introduction*, Oxford University Press, Oxford.

Lakoff, G. (1970) *Irregularity in Syntax*, Holt, Rinehart and Winston, New York.

Lakoff, G. (1987) *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*, University of Chicago Press, Chicago.

Lakoff, G. and M. Johnson (1980) *Metaphors We Live By*, University of Chicago Press, Chicago.

Langacker, R. W. (1987) *Foundations of Cognitive Grammar, Vol.1: Theoretical Prerequisites*, Stanford University Press, Stanford.

Linebarger, M. C. (1987) "Negative Polarity and Grammatical Representations," *Linguistics and Philosophy* 10, 325-387.

Nakau, M. (1994) *Ninchi Imiron no Genri* [Principles of Cognitive Semantics], Taishukan, Tokyo.

Newmeyer, F. J. (1998) *Language Form and Language Function*, MIT Press, Cambridge, Mass.

Ota, A. (1980) *Hitei no Imi: Imiron Jyosetsu* [Semantics of Negation: An Introduction to Semantics], Taishukan, Tokyo.

Oxford Advanced Lerner's Dictionary (6th ed.) (2000) Oxford University Press, Oxford [OALD[6]].

Palmer, F. R. (1986) *Mood and Modality*, Cambridge University Press, Cambridge.

Stefanowitsch, A. (to appear) "A Construction-Based Approach to Indirect Speech Acts," Panther, K.-U. and L. Thornburg (eds.), *Metonymy and Pragmatic Inferencing*, John Benjamins, Amsterdam and Philadelphia.

Sweetser, E. E. (1990) *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*, Cambridge University Press, Cambridge.

Taishukan's GENIUS English-Japanese Dictionary (3rd ed.) (2001) Taishukan, Tokyo [GENIUS[3]].

Takamasu, N. (2000) *Eigo no Suwearingu: Tabugo, Nonoshirigo no Goho to Rekishi* [Swearing in English: The Usage and History of Taboos and Terms of Abuse], Kaitakusha, Tokyo.

Talmy, L. (1985) "Force Dynamics in Language and Thought," *CLS* 21, 293-337.

Talmy, L. (1988) "Force Dynamics in Language and Cognition," *Cognitive Science* 2, 49-100.

Wierzbicka, A. (1988) *The Semantics of Grammar*, John Benjamins, Amsterdam.

Yamanashi, M. (2000) *Ninchi Gengogaku Genri* [Principles of Cognitive Linguistics], Kuroshio Publishers, Tokyo.

Doctoral Program in Literature and Linguistics

University of Tsukuba

onnok77@hotmail.com