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# Class W Adjectives and Non-Thematic Arguments

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## 1. Introduction

It has been well known that adjectives such as those listed in (1) form a special class on the basis of their peculiar behavior in several respects. They have been referred to by some different names, such as “evaluative (obj-comp) adjectives” (Norrick (1978), Landau (2009)), “mental property adjectives” (Stowell (1991)), and “unergative adjectives” (Bennis (2004)). Here I will call them “class W adjectives (CWAs),” adopting Wilkinson’s (1970) term, which seems most commonly accepted in the literature. CWAs are semantically characterized as denoting someone’s disposition or ability as well as the speaker’s evaluation of it, while syntactically distinguished from other classes of adjectives in that they exhibit an alternation between the constructions exemplified in (2).<sup>1</sup>

- (1) *brave, clever, cowardly, foolish, kind, mean, rash, smart, stupid, wise, ...*  
(cf. Wilkinson (1970), Stowell (1991))
- (2) a. John is {clever/mean}.  
b. John was {clever/mean} to punish the dog.  
c. It was {clever/mean} (of John) to punish the dog.  
d. Punishing the dog was {clever/mean} (of John). (Stowell (1991: 106))

The availability of the paradigm of (2) *per se* is the feature that has attracted the most attention in the previous syntactic studies of CWAs; it appears that they can be either monadic (in (2a)) or dyadic (in (2b–d)), optionally taking a clausal argument in addition to a human-denoting DP, and that either of the two arguments can serve as the subject in the dyadic construction. Their peculiarity can be made clearer by contrasting other classes of adjectives. Although adjectives of the classes exemplified in (3)–(4) can also take two arguments, clausal and non-clausal ones, their surface arrangement is more

1 For larger lists of members of this class, see Yasui (1996: 117–118), Fujita (1976).

restricted than (2).

- (3) a. \*I am painful.  
       (as synonymous with a sentence like *Something is painful to me.*)  
 b. \*I am painful to read your editorial. (as synonymous with (3c, d))  
 c. It is painful to me to read your editorial.  
 d. To read your editorial is painful to me.
- (4) a. Rollo was eager.  
 b. Paula was eager to kiss Dick.  
 c. \*It was eager (of Paula) (for her) to kiss Dick. (Wilkinson (1970: 427))

Despite the fact that the alternation illustrated in (2) has often been mentioned as unusual, there have only been a few attempts made to fully account for its availability to CWAs, and none of them are completely successful, as shown below. The purpose of this paper is to provide an adequate account of the alternation between the constructions in (2) by examining the status of the human-denoting DP and the embedded clause in each construction. A correct analysis of the derivational relationship between the constructions will also explain some further puzzling properties of CWAs.

This paper is organized as follows. Section 2 reviews the two divergent views of the alternation that are available in the previous analyses of CWAs. Section 3 reviews several previous studies that attempt a full account of the paradigm, exploring some key facts that suggest the nature of the alternation. Section 4 makes some proposals and presents my analysis of the constructions, accounting for the important properties of CWAs. Section 5 states the conclusion of this paper.

Before turning to the discussion, I will briefly introduce the basic terminology. For convenience of exposition, I will refer to the constructions in (2a), (2b) and (2c, d) as the “Possessor subject (PS),” “Possessor subject-with-Cause (PSC),” and “Cause subject (CS)” constructions, respectively. When necessary, I will distinguish the constructions in (2c) and (2d) by calling them the “extraposed” and “intraposed” CS constructions, though they can basically be regarded as two variants of the same construction, which are related to each other by the independently established process of extraposition. I will also adopt some terminology from previous studies to refer to the elements involved in these constructions. I will label the subjects in (2a, b), the action-denoting infinitive/gerund in (2b–d) and the phrase headed by *of* in (2c, d) as the “Possessors,” “Causes” and “*of*-DPs,” respectively. Note that when in what follows, I basically use these terms irrespective of the exact status of their referents, i.e., whether two particular constructions/elements should be distinguished, whether a particular element is an argument or an adjunct.

## 2. Understanding the Paradigm

In this section, I first briefly review the two divergent views of the alternation that are available in the previous analyses of CWAs. After observing some characteristic

properties of the three constructions, it is discussed how they can be derived from the base structures in examining in detail the derivations assumed under the two views.

## 2.1. Two Views of the Alternation

A basic question about the alternation at issue is how many distinct predicates projecting different structures should be assumed to derive the entire paradigm. If the identical adjectival predicate is shared by two or all three of the constructions in (2), how is their apparent diversity accounted for? The attempt to answer this question would lead to exploration of the nature of the alternation between the constructions. As just noted, two rather different views of the alternation are found in the previous studies of CWAs.

### 2.1.1. The PS Construction Alternates with the PSC/CS Constructions

The first view is taken by Wilkinson (1970) and Stowell (1991), who regards the PSC and CS constructions as sharing the same AP structure headed by a dyadic CWA, strikingly distinct from the PS construction that involves its monadic counterpart. Their distinction between the PS construction and the PSC/CS constructions is based largely on the observation of two marked differences between them; they have (i) different adicities and (ii) different temporal properties.

The former difference is syntactic and seems obvious. The nominal/clausal elements occurring in (2) can be classified into two types in terms of their semantic relation to the predicate: the subjects in (2a, b) and the *of*-DPs in (2c, d) all refer to the person to which the property denoted by the adjective is attributed, namely the “possessor” of that property; the control infinitives in (2b, c) and the gerundive subject in (2d) refer to the action performed by the possessor which provides the grounds for the speaker’s evaluation of her/his ability or disposition. This fact seems to indicate that the elements of each type bear the same  $\theta$ -role though often surfacing in different positions as different categories.

The second difference, on the other hand, resides in their interpretation: the adjective in (2a) denotes a certain innate, permanent property of the Possessor, whereas the adjectives in (2b–d) denote a temporary property that the Possessor or *of*-DPs only displays in performing the action denoted by the infinitives or gerund. The properties assumed for the two variants of the same CWA are summarized in (5).

(5)

<i>Construction</i>	<i>Predicate</i>	<i>Argument Structure</i>	
PS (2a)	Monadic CWA	<Possessor>	Permanent
PSC (2b)	Dyadic CWA	<Possessor, Cause>	Temporary
CS (2c, d)			

While it is not clear exactly how the nature of this alternation is captured in Wilkinson’s (1970) analysis, Stowell (1991) characterizes it as closely parallel to the

ergative alternation, which is, as Cinque (1990) shows, not restricted to verbs, also instantiated in the adjectival domain.<sup>2</sup> As Stowell points out, there are certain similarities between the diathesis alternation exhibited by “ergative” adjectives like *certain* and *sure* and the alternation between monadic and dyadic CWAs; both in (6) and (7), the subjects of the monadic construction surface as the objects of their dyadic counterparts with the “added” arguments instead occupying the subject position.

- (6) b. A bad result is {certain/sure}.  
 c. John is {certain/sure} of a bad result. (Stowell (1991: 119))
- (7) a. John was clever.  
 b. Leaving the party was clever of John.

### 2.1.2. The PS/PSC Constructions Alternate with the CS Construction

The other view of the alternation between the constructions in (2) is adopted by Maruta (2003), Bennis (2004) and Landau (2009). They argue that the PS and PSC constructions involve the same AP structure that contains their Possessor subject as the highest argument, while this argument is not projected by the adjective in the CS construction. This division of the paradigm is compatible with the simple intuition that the adjective in (2b), like the adjective in (2a), is predicated of the Possessor, as opposed to those in (2c, d), which are naturally understood as predicates of the infinitival and gerundive Causes.

Their difference in this respect would be supported by the existence of nouns that have a similar semantics to (and are often morphologically related to) CWAs. As seen in (8)–(9), while they can serve as predicates in the PS and PSC constructions, they fail to occur in the predicate position of the CS construction by virtue of their unambiguous status as predicates of Possessors.

- (8) a. You are {foolish/a fool} to spend so much.  
 b. It was {foolish/\*a fool} to spend so much. (Maruta (2003: 178))
- (9) d. John was an idiot to reject the offer.  
 e. \*Rejecting the offer was an idiot. (cf. Landau (2009: 325))

The same conclusion can be drawn from the fact that CWAs occurring in the PS construction behave as unergative predicates. They disallow *ne*-cliticization from their subject in Italian (Stowell (1991)), as in (10a), and inversion of their subject and (indirect) object is not possible in Dutch (Bennis (2004)), as in (10b). Both processes are well-established diagnostics for ergativity. The ungrammaticality of (10a) and the order IO-Subj in (10b) suggest that their subjects are generated as external arguments in the unergative structure.

2 Wilkinson takes monadic and corresponding dyadic CWAs as distinct lexical items and assumes that the former and latter are subcategorized as [+NP \_\_] and as [+NP<sub>1</sub> \_\_ of NP<sub>2</sub>], respectively. He also notes that their lexical similarity is attributable to the relatively large number of semantic or syntactic features but the features shared by them.



### 3.1. Neither Argument Is a Complement: Stowell (1991)

In providing a structural analysis of the paradigm in question, Stowell (1991) makes two major claims about the structural position of the two arguments of CWAs based on the observation of important facts: (i) the Cause is external, and (ii) the Possessor is also external.

The first claim is a necessary consequence of the view that the CS construction is a “transitive” counterpart of the PS construction, but he shows that it is also empirically supported by the behavior of the Cause arguments. For example, the infinitival Cause in the PSC and CS constructions forms an island for adjunct extraction, as in (13), which stands in clear contrast to the grammaticality of adjunct extraction out of infinitival complements, as in (14).

- (13) a.%? To whom<sub>i</sub> was it stupid of John [to talk  $t_i$ ]?  
 b.%? To whom<sub>i</sub> was John stupid [to talk  $t_i$ ]?  
 c.%? When<sub>i</sub> was it stupid of John [to eat dinner  $t_i$ ]?  
 d.%? When<sub>i</sub> was John stupid [to eat dinner  $t_i$ ]? (Stowell (1991: 123))
- (14) a. To whom<sub>i</sub> was it eager [to talk  $t_i$ ]?  
 b. When<sub>i</sub> was John eager [to eat dinner  $t_i$ ]? (ibid.)

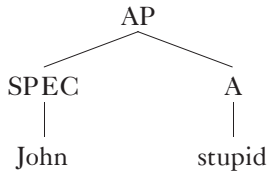
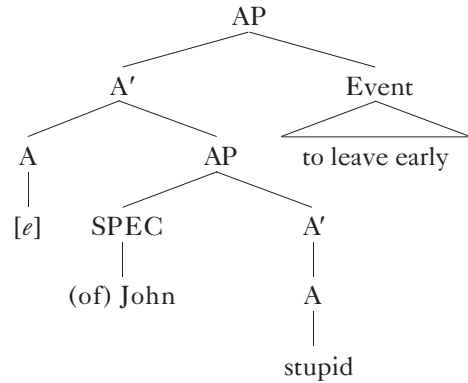
Another piece of evidence concerns *as*-clauses. *As*-clauses are sensitive to the base position of the gap, which must be base-generated as a complement. As shown in (15), when a CWA occurs within an *as*-clause, a gap corresponding to its Cause arguments would result in ungrammaticality.

- (15) a. ??John went home, as (\_\_\_) was \_\_\_ smart of him.  
 b. \*John went home, as it was smart of him \_\_\_.  
 c. \*John went home, as he was smart \_\_\_. (ibid.)

Binding facts also offer indirect support for the non-complement status of the infinitival Cause in the CS construction. In (16), a quantified Possessor fails to bind a variable pronoun within the infinitival Cause. The unavailability of the intended binding relation seems to indicate that the Possessor is structurally lower than the Cause, which excludes that possibility that the latter is generated as a complement.

- (16) \*It was crazy of everyone<sub>i</sub> to sell his<sub>i</sub> car. (ibid.: 127)

The fact that the Possessor patterns with external arguments leads Bennis (2004) and Landau (2009) to the conclusion that the infinitival Cause in the PSC construction is not an external argument. Although Stowell also recognizes the same fact through the observation of the Italian data in (10a), it brings him to a different understanding of the argument structure of CWAs, which is reflected in the structure he proposes for the PSC and CS constructions, as schematized in (17b).

(17) a. *PS Construction*b. *PSC/CS Construction*(cf. *ibid.*: 122)

The structure in (17b), modeled on a version of the VP-shell structure of double object constructions, consists of two adjectival projections headed by two distinct As, which allows the predicate to take two external arguments. In the PSC and CS constructions, the CWA selects the Possessor as an external argument in its base position (the lower A), while selecting the Cause as another external argument after raising to the higher A. Stowell argues that the presence of *of* is optional in this structure; if it is present, the Possessor remains in situ and the CS construction is derived, whereas the absence of *of* results in the PSC construction, where the DP raises to the subject position. The structure of the PS construction, on the other hand, lack the higher A and its projection, as in (17a), the CWA selects a Possessor as its only external argument, leaving no room for the Cause arguments.

The similarity between the PS/CS alternation and the ergative alternation is also accounted for straightforwardly given the structures in (17). Both alternations introduce a hierarchically higher argument to the “simpler” argument structure, yielding a pair of predicates with the same root and different subjects. In Stowell’s analysis, furthermore, the temporariness of the property denoted by CWAs in the PSC and CS constructions can be attributed to the presence of the outer AP. He identifies the difference in temporal interpretation between the PS and PSC/CS constructions as the difference between individual-level predicates (ILPs) and stage-level predicates (SLPs). Adopting Kratzer’s (1989) theory of SLPs, he claims that the argument structure of CWAs in the PS/CS constructions involves an Event argument, and that it is absent in the argument structure of the lower A but introduced by the higher A. If so, it naturally follows that CWAs in the PS construction, which lack Event arguments, denote a permanent property as ILPs. Consequently, a structural account is given of the different temporal properties of the constructions.

### 3.2. Genitive Case Assignment to the Possessor

While the alternation displayed by CWAs indeed bears certain similarities to the ergative alternation, there are also several significant differences between the former

and the latter. Most striking among them is the availability of the PSC construction to CWAs. To account this availability, Stowell makes two assumptions about the status of the *of*-DP: (i) the *of*-DP in the CS construction is a genitive object of the adjective, and (ii) genitive Case assignment by dyadic CWAs is optional. The two assumptions conspire to derive both the PSC and CS constructions from the same base structure in (17b). On closer inspection, however, it turns out that both are confronted with serious problems and hence untenable.

The first assumption is based on an extension of Burzio's generalization to ergative adjectives. The contrast between (6a, b) (repeated here as (18a, b)) and (18c) suggests that genitive Case assignment by ergative adjectives are conditioned by the presence of an external argument in a closely parallel way to accusative Case assignment by verbs.

- (18) a. A bad result is {certain/sure}.  
 b. John is {certain/sure} of a bad result.  
 c. \*{It/There} is {certain/sure} of a bad result. (Stowell (1991: 119))

If CWAs fall under the class of ergative adjectives (in a broad sense), as Stowell claims, it would be reasonable to take the *of*-DP in the CS construction as a genitive Case-marked DP rather than a true PP. In other words, it is the genitive Case assigned by the adjective that exempts (and in fact prevents) the *of*-DP from raising to the subject position. Given this, if CWAs taking an external argument assigns genitive Case only optionally on the second assumption, the Possessor surfaces as the subject for Case reasons, i.e., the PSC construction is available.

One problem with this explanation resides in the assumed optionality of genitive Case assignment. As far as other classes of adjectives concern, it is not optional in the intended sense. It is indeed not unusual that a potentially available genitive Case is not actually assigned, but it is restricted to cases in which nothing that requires Case is in the object position, for example, the object is implicit or a clause, as in (19a) and (19b), respectively.

- (19) a. His remarks was suggestive (of something). (Lakoff (1970: 47))  
 b. Harry was afraid that it would happen.

In the derivation of the PSC construction Stowell assumes, the Possessor does not receive genitive Case from the CWA, a potential Case-assigner, but instead raises to the subject position, receiving nominative Case. It is quite questionable whether such an option is available only to CWAs.<sup>3</sup>

3 To put it the other way around, the relevant generalization may be that genitive Case assignment by adjectives is obligatory if it can satisfy a Case requirement. Unfortunately, it is rather difficult to demonstrate this generalization especially in English largely due to the two following factors. The first factor is that, in accordance with (an extended version of) Burzio's generalization, adjectives selecting a genitive object usually take an external argument. External arguments of such "transitive" adjectives are typically interpreted as Experiencers, which forces them to be realized as DP but not CP. Therefore, if genitive Case assignment does not take place, the object and the Experiencer DP compete for the nominative/accusative Case assigned by a higher functional head. Consequently, the derivation inevitably crashes with either DP left assigned no

Putting aside the issue of optionality, a significant question arises about the categorial status of the *of*-DP if it is a genitive object of CWAs in the PSC and CS constructions, as in the case of adjectives like *certain* and *sure*. The assignment of genitive Case to the *of*-DP entails that it is a DP rather than PP. However, several facts about the selection of the preposition suggest the PP status of the *of*-DP.

A first fact is that in the CS construction, what precedes the alleged Possessor is not restricted to the preposition *of*; at least the phrasal expression *on the part of* can also serve the same function, as in (20).

- (20) It was selfish (on the part) of John to demand the best seat.  
(Landau (2009: 331))

Such variation would not be expected if *of* is a realization of the genitive Case assigned to the Possessor. Similar complex prepositions are used, sometimes as the only option available, to express the possessor of the property in the constructions in other languages corresponding to the English CS construction, as illustrated in (21).

- (21) a. *Italian*  
E' stato maleducato da parte di Gianni fare quel commento.  
has-been impolite from part of to-make that comment  
'It was impolite of John to make that comment.'
- b. *Hebrew*  
ze haya mavrik me-cidam le'hodot ba-ašma.  
it wa brilliant from-their-side to-admit in-the-guilty  
'It was brilliant of them to plead guilty.'  
(Landau (2009: 332))

Languages with rich case morphology provide a different type of evidence. In German, for example, genitive Case assigned to objects is marked on nominals, as in (22), where the adjective *sicher* 'sure,' when it takes an external Experiencer, assigns genitive Case to its internal Theme argument.

Case.

The second factor has to do with English case morphology. In English, the sequence "*of*-DP" is in principle morphologically ambiguous between a DP with the genitive case marker *of* and a true PP whose head is a lexical P. Hence if raising of the DP to the subject position is not allowed, it is often unclear whether its immobility should be attributed to the obligatoriness of genitive Case assignment or just to its status as an object of the preposition.

Adjectives in some languages with richer case morphology, however, provide support for the generalization. The following examples are from German.

- (i) a. Es ist Ihrer nicht würdig die Schuld bei anderen zu suchen  
it<sub>Expl</sub> is you<sub>Gen</sub> not worthy the debt with others to search  
b.\*Sie<sub>i</sub> sind t<sub>i</sub> nicht würdig die Schuld bei anderen zu suchen  
you<sub>Nom</sub> are not worthy the debt with other to search

Since genitive DPs are morphologically distinct from PPs with a similar semantics in German, it is clear that in (ia) the adjective assigns *Ihr* 'you' genitive Case, with its clausal argument extraposed. If genitive Case assignment is totally optional, it would be allowed to move *Ihr* to the subject position instead of merging the expletive *es*, as in (ib). This is not the case, however. This suggests that the generalization stated above holds, and that genitive Case assignment is not optional in the relevant sense.

- (22) a. Sein Sieg ist sicher.  
 his<sub>Nom</sub> victory<sub>Nom</sub> is sure  
 ‘His victory is sure.’  
 b. Er ist (sich) seines Sieges sicher.  
 he<sub>Nom</sub> is himself<sub>Dat</sub> his<sub>Gen</sub> victory<sub>Gen</sub> sure  
 ‘He is sure of his victory.’

In the German CS construction, on the other hand, the displayer of the property denoted by the adjective is expressed by a *von*-DP rather than a genitive DP, as in (23).

- (23) a. Das ist freundlich von Ihnen!  
 that is kind of you  
 ‘That is kind of you!’  
 b. Es war klug von Abbas, nach Gaza zu gehen und den Dialog  
 it was clever of A. to G. to go and the dialog  
 mit der Hamas zu suchen  
 with the H. to seek  
 c. Es war mutig von uns, als etablierte Band beim Grand Prix  
 it was brave of us as established band in-the grand prix  
 Vorentscheid mitzuwirken.  
 preliminary to-participate

This fact casts doubt on the parallelism between the alternation displayed by CWAs and the ergative alternation as well as the status of *of*-DP as a genitive object.

Another piece of evidence for the PP status of the *of*-DP comes from English diachronic facts. Matsubara (2000) points out that in Modern English after 1800, *in* was often used instead of *of* in the relevant constructions, and that such examples are, though rare, still attested in Present-day English. His examples are given in (24) and (25a).

- (24) a. It seemed culpable in Providence to allow such combination of  
 circumstances. (Eliot, Adam Bede, XII)  
 b. It is kind in you to make such a pretence... (BNC, HGV 302)  
 c. ’Tis honourable in ye. (Hardy, The Mayor of Casterbidge, XXXI)  
 (25) a. It is kind in you to make such a pretence... (BNC, HGV 302)  
 b. It would be absurd in me to attempt a detail of all the circumstances real  
 or... (Wordbanks Online, B9000001417)

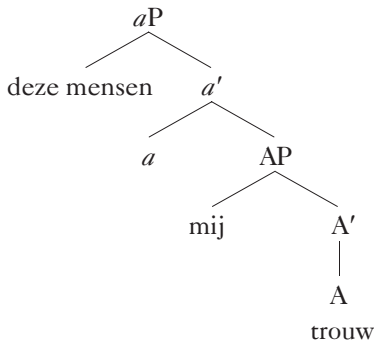
This historical transition is also hard to understand given Stowell’s analysis of the *of*-DP. All the above facts clearly suggest that the *of*-DP is not a genitive DP with its Case realized as *of* but true PP headed by the lexical preposition *of*.

### 3.3. The “Passive” Nature of the CS Construction and the Status of the *Of*-DP: Bennis (2004)

On the second view of the alternation, Bennis (2004) makes a rather different analysis of the three constructions in the paradigm. The structures he proposes for each construction are given in (26).

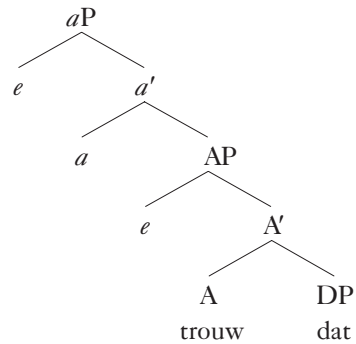
(26) a. *PS/PSC Construction*

Deze mensen zijn mij trouw.  
‘These people are loyal to me.’



b. *CS Construction*

Dat is trouw.  
‘That is loyal.’



(cf. Bennis (2004: 92, 98), Landau (2009: 327))

The structures in (26) embodies a significant claim he makes about the nature of the CS construction, which seems to be basically on the right track, as well as the status of CWAs in the PS construction as unergative predicates.

Bennis claims that CWAs in the CS construction are derived from their counterparts in the PS (C) construction through the suppression of the external argument, in a similar way that passive verbs are derived from their active counterparts. In other words, the CS construction is the “passive” counterpart of the PS (C) construction. This characterization of the CS construction has a number of consequences: in the CS construction, (i) the Possessor is not syntactically projected but still accessible as an implicit argument, (ii) the *of*-DP is an adjunct analogous to *by*-DPs in passive constructions, and (iii) the Cause is a derived subject, generated as an internal argument. Bennis offers some arguments in favor of (i) and (ii).

The occurrence of an implicit Possessor in the CS construction is supported by the fact that it can serve as the controller of PRO in the absence of the *of*-DP. This is illustrated as (27). In this respect, suppressed external arguments in passive constructions behave in a parallel way, as pointed out by Roeper (1986).

- (27) a. It was clever [PRO<sub>POSS</sub> to punish the dog].  
 b. [PRO<sub>POSS</sub> Punishing the dog] was clever.  
 (28) a. The boat was sunk [PRO<sub>AG</sub> to collect the insurance].  
 b. The boat was sunk [without PRO<sub>AG</sub> firing a shot].

Bennis also points out similarities between the *of*-DP in the CS construction and the

*by*-DP in the passive construction: they both serve to express the suppressed external arguments by oblique phrases, and their occurrence is optional.

Moreover, Maruta (2003) offers further facts that suggest that *of*-DP has close affinity to passive constructions. First, apart from CWAs, the CS construction is also available to some passive verbs preceded by adverbs, as in (29). Second, in some cases, *of* as well as *by* may serve to mark the Agent of passive constructions, as shown in (30).<sup>4</sup>

- (29) It was ill-judged of Mr Bush on Thursday to give the Taliban “a second chance” if they “cough up” bin Laden. (Maruta (2003: 178))
- (30) a. He went out unseen of any.  
 b. She was forsaken of her husband.  
 c. He is beloved of all. (ibid.)

The above facts strongly suggest that the relation between CWAs in the PS(C) and CS constructions is closely parallel to that between active and passive verbs.

### 3.4. The Thematic Status of the Cause Argument

While Bennis' (2004) insight into the nature of the CS construction seems to correctly capture the relationship between the Possessor and the *of*-DP, his analysis of the Cause would cause serious problems. He argues that the Cause is base-generated as the complement of the adjective and surfaces as the subject in the CS construction. As Stowell (1991) observes, however, their behavior in *as*-clauses, insularity and binding facts given in (13)–(16) all suggest the non-complement status of the Cause.

Putting aside these properties of the Cause, it should be pointed out that the “active” counterpart of the CS construction, namely the PS (C) construction does not behave as expected. While transitive adjectives can generally select either nominal or clausal complements, as in (31a–b), CWAs in the PS (C) construction only allow infinitival clauses as their complements, as in (31c). This is in particular surprising when we observe that both clausal elements and DPs such as demonstratives are fully acceptable as the subject of the CS construction, as seen in (32).

- (31) a. John was proud {to leave town/of that}.  
 b. John was eager {to leave town/for that}.  
 c. John was stupid {to leave town/\*of that}.
- (32) {Leaving town/That} was stupid of John. (cf. Landau (2009: 324))

The observation of the facts in (13)–(16), on the other hand, leads Stowell to

4 German preposition *von*, which corresponds to English *of*, is also employed to mark the Agent, as shown in (i).

- (i) a. Das Haus wurde von ihm gebaut.  
 that house was of him<sub>Dat</sub> built  
 ‘That house was built by him.’  
 b. Hans wurde von seinem Lehrer gelobt.  
 H. was of his<sub>Dat</sub> teacher<sub>Dat</sub> praised  
 ‘Hans was praised by his teacher.’

analyze the Cause as the highest argument of CWAs generated in the specifier position of the outer AP. In addition, he identifies the Cause as an Event argument in Kratzer's (1989) sense. This, he claims, ensures its status as an external argument, and explains the "temporariness" of the property denoted by CWAs in the CS construction. While Stowell seems to be correct in taking the Cause as non-complement, his particular analysis also raises numerous questions, some of which have to do with his identification of the Cause with an Event argument. Empirically, as Landau (2009) notes, the subject of CWAs in the CS construction is not restricted to action-denoting expressions, as in (33); they can be predicated of eventive, abstract, concrete, or any other types of objects.

- (33) a. Today's editorial was silly.  
 b. The fancy restaurant is quite pretentious. (ibid.: 323)

The subjects in (33) are both understood as the "products" of some action performed by the implicit Possessors, but it seems implausible to take them as referring events.

Conceptually, in addition, it is rather questionable whether Kratzer's event  $\theta$ -role can be taken as one that may be assigned to any phrases as other usual  $\theta$ -roles. In Kratzer's system, as Fernald (2000) points out, the event  $\theta$ -role essentially differs from other normal  $\theta$ -roles in that it only serves to exclude other  $\theta$ -roles from the status as the external  $\theta$ -role; event arguments are not projected in the syntax. Stowell, by contrast, treats the event  $\theta$ -role as if it has basically the same syntactic property as that of other ordinary  $\theta$ -roles, which might also undermine his analysis.

To sum up the above observations, the Cause behaves differently from ordinary complements/internal arguments like Themes; CWAs does not assign genitive Case to the Cause; the Cause is hierarchically higher than the *of*-DP but cannot be identified as an Event argument.

In connection with the structural position and thematic status of the Cause, Landau (2009) points out another problem with Bennis' (2004) analysis of the CS construction. Some CWAs implying the Possessor's certain attitude can select a PP that expresses the Goal it is shown to, as in (34a), but this Goal PP cannot occur in the CS construction, as in (34b). This contrasts with the availability of Goal arguments to passive constructions, which Bennis claims are structurally parallel to the CS construction, as seen in (35).

- (34) a. John was very rude (to Mary).  
 b. That was very rude (of John) (\*to Mary). (Landau (2009: 315))  
 (35) a. The book was given to me. (cf. Landau (2009: 329))  
 b. Dat boek werd mij overhandigd  
 that book was me given (Bennis (2004: 98))

Bennis provides a relativized minimality account of this restriction. The Goal in [Spec, AP] intervenes the Cause in [Spec, *a*P] and its trace, counting as closer to the latter than the former, resulting in a violation of the Minimal Link Condition (Chomsky (1995)). In passive constructions, on the other hand, V-to-*v* raising makes [Spec, *v*P] and [Spec, VP] equidistant from the trace of the Theme.



- (38) a. It was **cowardly** of Mulroney to attack a man who's no longer able to defend himself.  
 b. It was **cowardice** of him to shun away from his fears. (Landau (2009: 331))
- (39) a. It was **foolish** of Bill to dance naked in the snow.  
 b. It was **foolishness** of Bill to dance naked in the snow. (Landau (2006: 2))

On the basis of the parallelism between the (a) and (b) examples, he argues that CWAs in the CS constructions are derived from CWAs in the PS construction through a process similar to nominalization. Specifically, he proposes two processes are involved in the derivation of the CS construction: the lexical operation SAT and what he calls “reification.”

The former process is achieved by attaching the SAT operator to some predicate in the lexicon, forming a complex head. The SAT operator existentially binds all individual-type arguments of its host predicate, leaving only an event variable, if any, unsaturated. The result of the application is a predicate of events (type  $\langle s, t \rangle$ ) or a proposition (type  $t$ ), depending on whether the host predicate bears an event variable or not. The semantics of the SAT operator is defined as follows:

- (40) For any  $n$ -place predicate  $P(x_1, x_2, \dots, x_n)$ ,  $n \geq 1$ ,  
 where for any  $i \leq n-1$ ,  $x_i \in D_c$ :  
 a. If  $x_n \in D_c$ , then  $SAT(P) = \exists x_1 \exists x_2 \dots \exists x_n [P(x_1, x_2, \dots, x_n)]$   
 b. If  $x_n = e \in D_s$ , then  $SAT(P) = \exists x_1 \exists x_2 \dots \exists x_{n-1} [P(x_1, x_2, \dots, x_{n-1}, e)]$   
 (Landau (2009: 338))

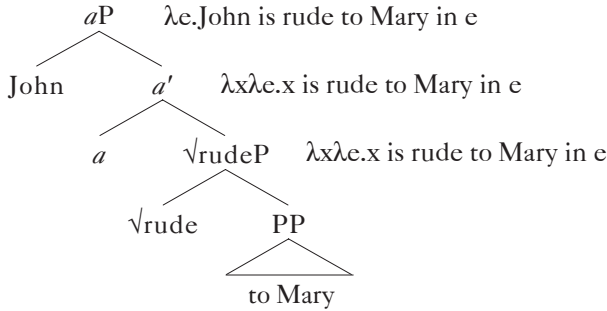
Reification is, on the other hand, intended to be a reformulation of the general operation of nominalization. Landau claims that nominalizing affixes denote the REALIZE relation and introduce a “Realizer” of what their complement is predicated of, as stated in (41).

- (41) *The R relation: denotations*  
 a. Event nominals:  $[[R_c]] = \lambda z \lambda e. REALIZE(z, e)$   
 b. Other nominals:  $[[R]] = \lambda z \lambda x. REALIZE(z, x)$  (ibid.: 335)

Given these two processes, he proposes the structures in (42a) and (42b) for the PS and CS constructions, respectively.

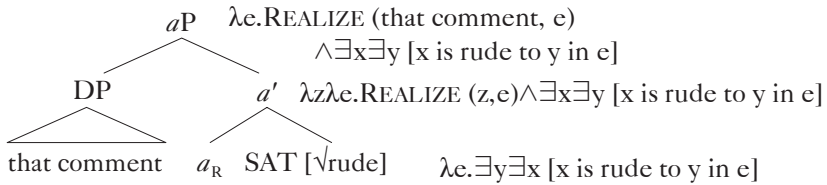
(42)  $[[\sqrt{\text{rude}}]] = \lambda y \lambda x \lambda e. x \text{ is rude to Mary in } e$

a. John was rude to Mary.



(cf. *ibid.*: 339)

b. That comment was rude.



(cf. *ibid.*: 340)

The two structures in (42) show how the two different constructions are derived from the same root predicate. Landau assumes that  $\sqrt{\text{CWA}}$ s are ambiguous between SLPs and ILPs, namely between the argument structures with and without an Event argument, and that in the case of CWAs like *rude*, the argument structure of the root optionally involves a Goal argument. In the structure of PS construction in (42a),  $\sqrt{\text{rude}}$  first merges with [PP to Mary], saturating its Goal argument, and is in turn selected by *a*, which is assumed to lack an intrinsic argument structure.<sup>6</sup> As a result, the Possessor argument of the  $\sqrt{\text{rude}}$  is projected in [Spec, *aP*], which ensures its status as an external argument. In the CS construction in (42b), on the other hand, the SAT operator attaches to  $\sqrt{\text{rude}}$  in the lexicon, yielding a monadic predicate of events, which is in turn selected by *a<sub>R</sub>* with a Realizer projected in its specifier position. The resulting interpretation is something like “That comment realizes an event of rudeness.”

Note that this analysis of the CS construction captures its “passive-like” character suggested by Bennis (2004) and Maruta (2003) in more general terms. In Landau’s theory, passivization is a special case of the operation SAT in which the SAT operator applies to the agentive *v*, existentially binding, namely “suppressing,” the Agent argument. In other words, the derivation of CWAs in the CS construction and passivization are two different instances of application of the same operation SAT. This also explains the parallelism between the *of*-DP in the CS construction and the *by*-DP in passive constructions; they both serve to express the existentially bound

6 This does not necessarily mean that this instance of *a* totally lack a semantic content. Landau suggests that it bears some semantic features, such as ones associated with scalar structure.

arguments as adjuncts, and as such, their occurrence is optional.

Landau's analysis can also provide an account of some facts about CWAs that Bennis (2004) fails to capture. The first fact is that the Cause behaves differently from typical complements, contrary to the prediction under Bennis' analysis. This behavior is entirely consistent with Landau's analysis, however, because for Landau, the Cause is the Realizer, i.e. the external argument of "nominalized" CWAs. Furthermore, the unavailability of the Goal argument in the CS construction is straightforwardly accounted for without recourse to any constraint on movement; in the CS construction, the SAT operator "suppresses" not only the Possessor but also the Goal.

### 3.6. Unavailability of the Goal in the PSC Construction and Nominalizations

Landau's (2009) analysis, although containing some important insights into the nature of the alternation, yet has several problems. In particular, his analysis of the PSC construction raises a number of questions. He treats the PSC construction as sharing the same base structure with the PS construction, but rather there are notable similarities between the PSC and CS constructions, which seems to have to do with the common occurrence of the Cause.

Given Landau's theory of unselective saturation (application of SAT) and reification, the occurrence of the Cause inevitably excludes the syntactic projection of the Possessor argument.<sup>7</sup> Taking the (non-)application of SAT as the main factor of the alternation, he claims that the infinitival Cause occurring in the PSC construction is not an argument but an adjunct, as illustrated in (43).

(43) John was stupid [<sub>AdvP</sub>  $\emptyset$  [PRO to leave town]]. (ibid.: 324)

He also points out that the infinitival Cause in (43) can be replaced by the phrase *in-gerund*, which is plausibly identified as an adjunct, leaving the meaning of the sentence unchanged, as in (44).

(44) John was stupid [*in* leaving town]. (ibid.)

On the basis of the similarity between (43) and (44), Landau concludes that the Cause in (43) is headed by a null adverbial element analogous to *in* in (44). A closer examination, however, reveals that their similarity is only superficial. One crucial difference between them is in their ability to cooccur with the Goal argument: the *in-gerund* can cooccur with the Goal, as in (45a) whereas the infinitival Cause cannot, as in (45b, c).

7 If a CWA projecting its Possessor argument undergoes reification by  $a_R$ , the resulting structure would be as shown in (i).

(i) \*[that [ $a_R$  [John [ $a$  [ $\sqrt{\text{rude}}$  [to Mary]]]]]] (Landau (2009: 344))

Landau claims that this structure is ruled out because the cooccurrence of  $a_R$  and  $a$  violates some condition on morphosyntactic well-formedness. The assumption of such a condition seems plausible, but even if their cooccurrence is allowed, accepting (i) as a possible structure would result in undermining his analysis, because it would be predicted that the Goal argument can occur in the PSC construction.

- (45) a. Carol was rude to the hostess in refusing dessert.  
 b. \*Carol was rude to the hostess to refuse dessert. (Kertz (2005: 6))  
 c. \*John was kind to me to fix my car. (Stowell (1991: 129))

In Landau's analysis, the examples in (45b, c) are both predicted to be grammatical, because they do not involve the application of SAT and hence the Goal argument of  $\sqrt{\text{rude}}$  could be projected syntactically. In this respect, the Cause in the PSC construction behaves like the Cause in the CS construction, whose status as an argument is clear.

Moreover, Landau's assumption about the categorial status of the Cause in the PSC construction is rather ad hoc. Given its status as an AdvP, he attributes the ungrammaticality of the examples in (46) to the inability of AdvPs to modify NPs.

- (46) a. John's stupidity (\*to leave town)  
 b. John's rudeness (\*to insult Mary) (cf. Landau (2009: 324))

However, given the similarity between the Cause in (43) and the *in*-gerund in (44), it would be rather reasonable to assume  $\emptyset$  in the former to be a null preposition that denotes some locative/temporal relation in a broad or abstract sense, as the preposition *in* in (44). Nonetheless, the assumption cannot be adopted in Landau's analysis that the Cause in (43) is a PP adjunct headed by a null preposition; otherwise, the ungrammaticality of the examples in (46) would be unexpected, because PPs can generally modify NPs. In fact, the *in*-gerund, unlike the infinitival Cause, can appear in nominalization of the PS construction, as shown in (47)–(49).

- (47) his cleverness in making so much money (Konishi (1989: 421))  
 (48) a. ?\*his {cleverness/foolishness/kindness/thoughtfulness/cowardice/wisdom/  
 care} to come over  
 b. his {cleverness/foolishness/kindness/thoughtfulness/cowardice/wisdom/  
 care} in coming over (Yasui et al. (1976: 229))  
 (49) a. the owner's stupidity {\*to risk/in risking} injuring the horse  
 b. the researcher's silliness {\*to waste/in wasting} time studying invisible  
 waves (Kertz (2005: 4))

Again, the Cause behaves similarly in the PSC and CS constructions; the latter also cannot be nominalized, as in (50), though its Cause is not an adjunct.

- (50) a. \*the cleverness of John to punish the dog  
 b. \*the wisdom of you to do so (Maruta (2003: 179))

The generalization drawn from the data in (46)–(50) is that the Cause cannot appear in nominalizations of CWAs irrespective of the construction, which would be missed by an analysis that accounts for the ungrammaticality of (46) by assuming the categorial status of the Cause as an AdvP.

### 3.7. CWAs in the PSC and SC Constructions as Stage-Level Predicates

The previous studies agree that there is certain difference in temporal interpretation between the CWAs in the constructions in (2), as noted earlier: the CWA in the PS construction denotes an “innate” or “permanent” property of the Possessor, whereas the CWAs in the PSC and SC constructions denote “temporally bound” or “temporary” property displayed by the Possessor in relation to the action denoted by the Cause. Stowell (1991) identifies this difference as that between ILPs and SLPs, and this understanding is basically accepted in most subsequent studies. Somewhat surprisingly, however, CWAs in the PSC and SC constructions cannot cooccur with temporal adverbials, which is one of the most typical diagnostics for the status as SLPs, as in (51) and (53a).

- (51) a. \*{All morning/At noon} Rollo was kind to go.  
       (cf. Wilkinson (1970: 430))  
       b. \*It was kind of Rollo {all morning/at noon} to go home.  
       c. \*{All morning/At noon} it was kind of Rollo to go home. (ibid.: 431)
- (52) {All morning/At noon} Rollo was kind to Jason. (ibid.)
- (53) a. #All the way from Lubbock to Marfa, John was smart to drive.  
       b. All the way from Lubbock to Marfa, John was eager to drive.  
           (Kertz (2005: 3))

In (52) the CWA cooccurs with a temporal adverbial in the PS construction, but this is not inconsistent with Stowell’s view; to be precise, CWAs in the PS construction are ambiguous between ILPs and SLPs, as has long been recognized. They can denote either a certain innate disposition of the Possessor or a certain attitude or a glimpse of his disposition shown by her/him. In the latter reading, they can also cooccur with locative adverbials, as in (54a), and occur in the progressive, as in (54b), both of which are properties typical of SLPs.

- (54) a. John is wise in his new office. (Konishi (1989: 2068))  
       b. Patterson drew in a long, slow breath, then said “I think you’re being most wise.” (ibid.: 2069)

The unacceptability of the examples in (51) and (53a) is, on the other hand, totally mysterious given Stowell’s or Landau’s (2009) interpretation of the temporal properties of CWAs. In Landau’s analysis, in particular, nothing seems to prevent the occurrence of temporal adverbials in the PSC and SC constructions; both structures contain an unsaturated event variable that is finally bound by existential closure, which is expected to suffice to license temporal adverbials. Intuitively, it appears that the occurrence of the Cause, which denotes a specific (namely, spatiotemporally specified) action, prevents distinct spatiotemporal adverbials from cooccurring with the CWA. To my best knowledge, however, any principled account of this deviation has been given in previous studies.

In addition, Kertz (2005) shows that CWAs in the PSC construction also do not pass other typical diagnostics for the status as SLPs; rather, they clearly pattern with

ILPs. For example, they can be embedded as the small-clause predicate under verbs like *consider* and *find*, but cannot under verbs of direct perception like *see* and *hear*, as in (55). This distribution is typical of ILPs and contrasts with that of SLPs like *eager*, shown in (56).

- (55) a. #We have all seen the senator smart to avoid controversy.  
 b. We all consider the senator smart to avoid controversy.  
 (56) a. We have all seen the senator eager to avoid controversy.  
 b. #We all consider the senator eager to avoid controversy.

(Kertz (2005: 3))

Furthermore, CWAs in the PSC construction is not compatible with quantificational adverbs like *often*, as in (57a). SLPs like *eager*, by virtue of the event variable it bears, can cooccur with quantificational adverbs with the sentence containing no other free variables like ones borne by indefinites, as in (57b).

- (57) a. #Copland was often smart to write about his compositions.  
 b. Copland was often eager to write about his compositions. (ibid.)

All the above facts strongly suggest that CWAs in the PSC and CS constructions are ILPs rather than SLPs despite the fact that they are temporally bound, denoting a temporary property displayed by the Possessor.

### 3.8. Summary

On the basis of the above examination and discussion, the major properties of CWAs and the three constructions involving them can be summarized as follows:

- (58) a. The Possessor is external.  
 b. The Cause is not complement.  
 c. The CS construction involves a suppressed Possessor.  
 d. The *of*-DP is an adjunct licensed by a suppressed Possessor.  
 e. The Cause in the PSC construction is distinguished from typical adjuncts; rather, it shares many properties with the Cause in the CS construction.  
 f. The Goal cannot cooccur with the Cause  
 g. CWAs in the PSC and SC constructions behave like ILPs rather than SLPs.

An adequate analysis of the three constructions and the alternation between them must give a principled account of these properties.

## 4. An Alternative Analysis

### 4.1. The Causal Interpretation of the Cause Argument

Two properties of the Cause have often attracted attention in the literature: (i) the



which serve as restrictors of modal/generic operators (see Kratzer (1986), Kaneko (1999), Von Stechow and Iatridou (2001), among others). Accordingly, the example in (62) and (63a), for example, is paraphrased by (66a) and (66b), respectively.

- (66) a. If you lock the door, you would be stupid.  
 b. You would be wise if you do as he suggests.

Modal/generic quantification has been regarded in some different ways: typically as quantification over possible worlds/situations, but sometimes just as quantification over events. Here I assume that it is quantification over “tenses,” putting aside its exact semantic status, based on the temporal identity of the Cause as the matrix clause; both in (65b) and (65c), the Possessor is stupid exactly when he give up in such a situation.

Some support is found in favor of the ontology of semantic entities corresponding to the syntactic conception of tense and their involvement in the PSC and CS constructions. As seen in (2d), CWAs can select verbal gerunds as its Cause argument. On the basis of this fact, Geuder (2000) points out that CWSs can be predicates of a special type of propositional entities, because referents of verbal gerunds should be distinguished both from propositions and events, as Zucchi (1993) claims. In contrast to nominal gerunds, verbal gerunds cannot cooccur with typical predicates of events like *slow*, as seen in (67), and lack the manner reading which is closely connected to event interpretation, as seen in (68).

- (67) a. John’s performing of the song {was slow/was sudden/took a minute}.  
 b.??John’s performing of the song {was slow/was sudden/took a minute}.  
 (Geuder (2000: 140))
- (68) a. Mary’s performing of the song surprised us.  
 b. Mary’s performing of the song surprised us. (ibid.)

On the other hand, they are also incompatible with predicates of propositions, as (69) show.

- (69) a.??John {knows/believes} the soprano’s performing of the song.  
 b.??The soprano’s performing of the song is {true/false}. (ibid.: 141)

These facts indicate that they cannot be properly treated as referring either to events or propositions. Following Zucchi, Geuder regards CWAs as predicates of another sort of propositional entities called “state of affairs.”

He notes that states of affairs are properly described as facts situated in possible worlds rather than the real world. If so, this is also fully consistent with the usual understanding of modal quantification mentioned above. Along these lines, I assume that variables of this type are introduced in the base position of modals and finally bound by operators on T as operators on D bind referential variables on N. With the semantic background just noted in mind, however, here I refer to such variables just as “tense variables,” because their semantic status is not directly relevant for the following discussion.

## 4.2. Proposal

Based on the above discussion, I make the four following major claims about the lexical properties of CWAs and the constructions involving them.

- (70) a.  $\sqrt{\text{CWA}}$ s are invariably monadic, but can be either SLPs or ILPs with the argument structures  $\langle e \rangle$  or  $\langle \tau \rangle$ , respectively.
- b.  $\sqrt{\text{CWA}}$ s can select a non-thematic complement; it is not associated with the predicate root by any sort of predicate-argument relation.
- c.  $\sqrt{\text{CWA}}$ s are selected by the light possessive adjective *a* that introduce the Possessor as an external argument.
- d. The Possessor of *a* can be “suppressed,” which licenses the occurrence of the adjunct *of*-DP.

(70a) is consistent with the standard view, but I further assume that individual-level CWAs bear tense variables.

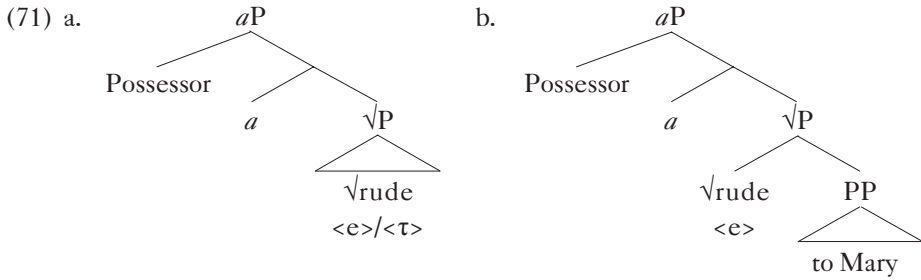
(70b) is a claim that is particularly crucial for the present analysis. I claim that CWAs can select a complement (probably imposing some selectional restriction on it), but their complement is not thematically associated with them at the semantic interface; in traditional terms, CWAs assign no  $\theta$ -role to their complement despite the fact that the former select the latter in syntax. Technically, in Chomsky’s (2005) framework, arguments merge with predicates motivated by edge features that they bear, and the constructed structure is interpreted based on the configuration and their lexical properties at the semantic interface, given a Hale and Keyser-style theory of argument structure. This system leaves room for “non-thematic arguments,” namely, phrases generated in argument positions but not interpreted as arguments, if an appropriate interpretation is available by some other means. Here I would like to explore this possibility.

The claim in (70c) is not so special in accordance with the structure usually assumed for the PS construction in previous studies. (70d) is basically adopted from Maruta (2003), Bennis (2004) and Landau (2009). To be more precise, I assume that only the Possessor is “suppressed,” putting aside the exact nature of the operation of suppression. In this sense, my claim is more akin to the former two’s.

## 4.3. Derivation of the Constructions: the Properties Explained

In the following, we will see how each of the constructions is derived and how their properties summarized above can be accounted for, given the claims I made in the previous section.

Let us begin with the PS construction. As stated in (70c),  $\sqrt{\text{CWA}}$ s are selected by the possessive *a*, which project the Possessor as its specifier. Since  $\sqrt{\text{CWA}}$ s can select a PP, as noted in (70b), and when the predicate root is a SLP, it is licensed as its modifier by the application of existential closure at the  $vP$ -level. Consequently, the structures of the PS constructions with and without the Goal are as schematized in (71a) and (71b), respectively.



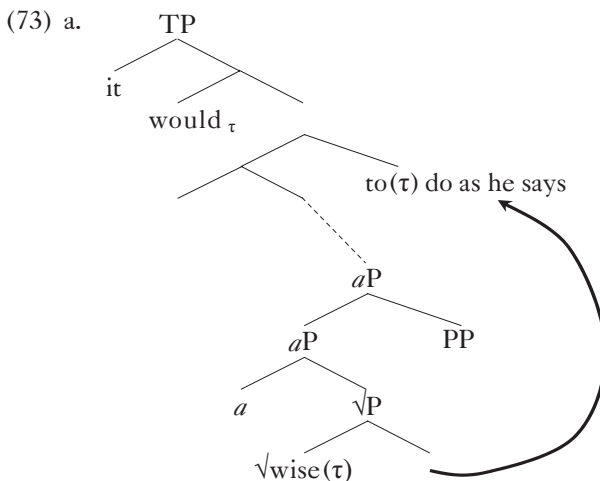
Let us turn next to the CS construction. In this construction,  $\sqrt{\text{CWAs}}$  are also selected by the possessive *a*, but its Possessor is “suppressed” and present as an implicit argument. In accordance with (70d), the suppression of the Possessor licenses the occurrence of the *of*-DP, but it is not forced, because it is an adjunct. On the other hand, a question that arises is how the Cause argument is licensed; it is not thematically associated with the  $\sqrt{\text{rude}}$ , which might result in the unavailability of an interpretation to the Cause at the semantic interface, causing the derivation to crash. I propose that the derivation is saved by integrating the Cause into the semantics of the sentence as a restrictor of the modal/generic operator. Here I assume that modal/generic quantification also falls under Diesing’s (1992) Mapping Hypothesis, given in (72).

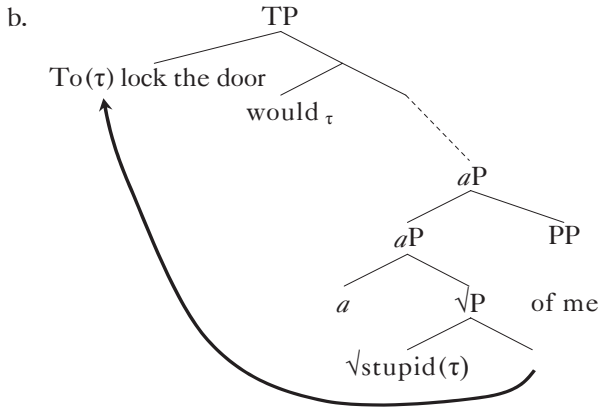
(72) *Mapping Hypothesis*

Material from VP is mapped into the nuclear scope.

Material from IP is mapped into a restrictive clause. (Diesing (1992: 10))

Given the application of the Mapping Hypothesis to modal/generic quantification, the Cause is mapped into a restrictive clause of the operator; both in the extraposed and intraposed CS constructions, the Cause reaches the IP domain by the application of extraposition and by raising to the subject position, respectively. as the structures in (73a) and (73b) illustrate. The semantic representations of (61d) and (63) are, for example, roughly sketched as in (74a) and (74b).



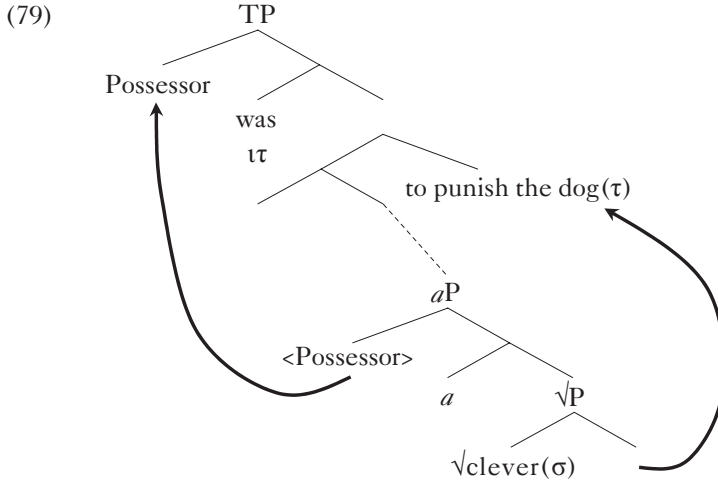


- (77) a.  $\text{would}_\tau [\text{to-do-as-he-says}(\tau)] \exists x [\text{wise}(\tau, x)]$   
 b.  $\text{would}_\tau [\text{to-lock-the-door}(\tau)] \exists x [\text{wise}(\tau, x) \ \& \ \text{of}(x, \text{me})]$

If this analysis is on the right track, a next immediate question is how the CS construction whose matrix tense is punctual past is possible; the punctual past tense is obviously neither modal nor quantificational. To accommodate these cases, I propose that the punctual past tense does not involve a quantificational operator, but involves the  $t$ -operator. While Diesing's Mapping Hypothesis presumes the tripartite structure of quantification, it has also been well-accepted that there are hierarchical relationships within the quantificational structure: the operator takes the restrictive clause as its sister, and the resulting QP in turn takes the nuclear scope as its sister. Given this, the constituency of (74a) can be depicted more precisely as in (75a), and a closely parallel semantic representation can also be given to the example in (2d), whose matrix tense is punctual past, by replacing a modal/generic operator by the  $t$ -operator with the application of  $\lambda$ -abstraction, as shown in (75b). The representation in (75b) is roughly paraphrased as "the (past) situation in which John punished dog was a situation in which John was clever," which is consistent with the actual meaning of the example.

- (75) a.  $[[\text{would}_\tau [\text{to-do-as-he-says}(\tau)]] [\exists x [\text{wise}(\tau, x)]]]$   
 b.  $[[[t [\text{punishing-the-dog}(\tau)]] \lambda\sigma [\exists x [\text{clever}(\sigma, x) \ \& \ \text{of}(x, \text{John})]]]]]$

Finally, let us see the structure and derivation of the PSC construction. I argue that the PSC construction has a similar structure to that of the CS construction with the infinitival Cause also generated as a non-thematic argument; the only difference is that the Possessor argument of the possessive  $a$  is not suppressed, and then projected as its specifier, as in the PS construction. The structure assumed for the PSC construction is schematized in (77).



For the same reason noted above, the Cause must be escape from the VP domain. In this case, the only option is to extrapose it to the IP domain because of the occurrence of the Possessor. While the Cause is mapped into a restrictive clause (more precisely, into the scope of the  $t$ -operator, in (79)), the Possessor can be interpreted in the nuclear scope, because it is thematically selected by the possessive  $a$ , so can reconstruct to its base position.

The structures of the CS and PSC constructions given in (73) and (76) also account for four of the properties listed in 3.8. First of all, the behavior of the Cause as a non-complement is accounted for by its non-thematic status. In the present analysis, despite the fact that it is generated in the complement position of  $\sqrt{CWA}$ s, this base copy cannot be interpreted at the semantic interface by virtue of its lack of a thematic relation to the predicate. This results in the obligatory interpretation of a higher copy, which leads to its non-complement character. Secondly, the reason for the property stated in (58e) is obvious; the Cause in the PSC construction is in fact not an argument rather than adjunct. Its similarity to the Cause in the CS construction is naturally attributed to their same structural status. Thirdly, the incompatibility between the Goal and the Cause can also be accounted for in structural terms; they compete for the same complement position of  $\sqrt{CWA}$ s. Finally, the ILP-like behavior of CWAs in the PSC and CS constructions are straightforwardly accounted for. They are actually ILPs. Although  $\sqrt{CWA}$ s can either be SLPs or ILPs, the occurrence of the Cause forces the predicate to be an ILP to be assigned an appropriate interpretation.

## 5. Conclusion

This paper explored the nature of the alternation displayed by CWAs through examination of significant observations made in some previous studies. A detailed examination of the previous analyses revealed their problems as well as several key properties of CWAs and the constructions involving them. On the basis of the

summary of these discussions, I attempted a novel approach to CWAs by arguing for the existence of non-thematic arguments. After presenting the central claims, I showed that an analysis based on them can account for the key properties listed earlier. It is known, however, that CWAs also have a number of peculiar properties that are yet to be accounted for and not dealt with in this paper. These remaining issues are left for future research.

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