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On the Composition of COMP and Parameters of V2

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0. Introduction:

By far, the bulk of current accounts of Verb Second (V2) phenomena in the Germanic languages is concerned with characterizing the root/subordinate asymmetry of V2. The standard way is to derive this asymmetry by taking the Comp position to be occupied either by a lexical complementizer or by the moved finite verb (Vf). Since complementizers are found only in subordinate contexts, finite verbs cannot move to Comp, yielding the asymmetry.¹

However successful the standard account may be for what we shall call an Asymmetric (A)V2 language like German, the existence of Parallel (P)V2 languages like Yiddish (den Besten and Moed-van Walraven 1986, Diesing 1990, etc.) and Icelandic (Thrainsson 1986) where V2 is found in both root and subordinate contexts constitutes an important litmus test of the adequacy of various accounts of A-V2 as an overall theory of V2 phenomena, for we are in agreement with Weerman (1989) that it is desirable to have a unified account of Germanic V2. In fact, in this paper, we go a step further and add to the picture Kashmiri, a language outside the Germanic family, which nevertheless patterns as a P-V2 language, and propose an account that will generalize over Germanic and Kashmiri.

We proceed to do so in the following manner. First, we develop a theory of complementizers based on evidence from languages with a richly developed complementizer system. We then employ the results of this analysis to construct a parametric theory of V2, that is, a theory that accounts for both A-V2 and P-V2 languages in a principled way. We conclude the paper with a discussion of some consequences of our analysis.

1. The Composition of Comp:

The category complementizer has been firmly established among the stock of syntactic categories since the influential work of Bresnan (1972). Its utility has been greatly enhanced recently with the proposal of "Generalized X-bar Theory" of Chomsky (1986) which gives it a full-fledged two-level projection on a par with lexical categories. We begin our query into the complementizer system of natural languages by noting that "complementizer" is not a unified category, both functionally and structurally.

¹. Among the Germanic languages, only Icelandic and Yiddish lack the root/subordinate asymmetry, while Modern English lacks V2 altogether.

Crosslinguistically, one function of lexemes we call complementizers is to indicate **clause type**. For this reason, different matrix predicates select different kinds of complementizers. Comp, or, the Spec of Comp, has in recent years also played a role as the landing site for certain kinds of operator movement, a fact also tied to clause type. In this sense, all types of clauses, including matrix clauses, should possess a Comp node.

One difference between root and subordinate clauses is that root clauses do not admit lexical complementizers. This is doubtless due to the fact that lexical complementizers in languages like English also function as markers of **subordination**, wherefore the traditional designation "subordinating conjunction". In English, then, these two functions are **lexicalized** as a single lexeme.

However, in other languages with robust agglutinative morphology, these two functions are carried out by separate lexemes. This is most clearly the case in Korean and Japanese. Korean possesses a system of lexemes called **Mood Markers**. Mood marking is obligatory in all clauses, root and subordinate. However, to indicate subordination, it uses a **subordinating particle**, *ko*, as seen in (1). This is the particle that is taken to be the Comp in the generative literature of Korean, but it is easy to see that it functions quite differently from lexical complementizers in a language like English. The function of *ko* is simply to indicate **verbal subordination**. This is demonstrated most clearly by the fact that it is compatible with a variety of mood markers. In other words, the selection requirement of the matrix V is satisfied by the mood markers, and not by *ko*.

- (1a) John-i wa-ss-ta
John-NOM come-PAST-DECL
'John came'
- (1b) Bill-un [John-i wa-ss-ta-ko] sayngkakhanta
Bill-TOP John-NOM come-PST-DECL-SUB thinks
'Bill thinks that John came'
- (1c) John-i wa-ss-ni?
John-NOM come-PST-INTER
'Did John come?'
- (1d) Bill-un [John-i wa-ss-nya-ko] mwulessta
Bill-TOP John-NOM come-PST-INTER-SUB asked
'Bill asked if John came'

The facts of Korean "complementizers" prove our earlier conjecture that the English Comp conflates two distinct categories of information, while Korean, with its characteristic agglutinative morphology, separates them out and assigns each to different lexemes. Japanese and Kashmiri also show such overt dissociation of the two functions of "Comp", as shown in (2) and (3), respectively.

Kashmiri

- (2a) bə khyam†-həə bat†
I eat-SUBJUNCTIVE rice
I would like to eat food.
- (2b) tem dop ki su kheyi-hee-ne yi
he said SUB he eat-SUBJUNCTIVE-Neg this
He said that he would not eat it.
- (2c) Bill-an prutsh maaj† ki so heky-aa az yith
Bill-ERG asked mother SUB she can-INTER today came
Bill asked (his) mother if she can come today.

Japanese

- (3a) John-ga ki-ta
John NOM come-Past
John came.
- (3b) Bill-wa [John-ga ki-ta to] omotta
Bill-TOP John-NOM come-PAST SUB thought
Bill thought that John came.

Given this, we would like to hypothesize, following the recent logic of giving each functional feature its separate projection (Pollock 1989, Chomsky 1989) and the usual assumptions about crosslinguistic uniformity, that the category "Comp" should be dissociated into a category that indicates clause-type, or **Mood**; and for subordinate clauses, a category of **Subordinators**. The lexical complementizer system of English conflates the two categories, while in Korean, Japanese and Kashmiri, they are kept apart.

2. Parameters of Verb Second: Earlier Accounts:

The V2 phenomenon shows the root-subordinate asymmetry in certain languages (most of Germanic), while other languages (Icelandic, Yiddish, Kashmiri) allow it in both main and subordinate clauses. As we noted earlier, standard accounts of German V2 derive the asymmetry by taking the landing site of V2 to be the Comp, which is taken up by the lexical Comp in embedded clauses, hence blocking V2.

However, the standard account provides little room for variation found in V2 across languages, unless of course; (i) some V2 is effected by movement to a different position, or (ii) if the clausal structure of A-V2 and P-V2 languages are different in some systematic way. In fact, the proposals that address the split in V2 to date have pursued either of these options.

2.1. Diesing (1990):

Diesing, analyzing Yiddish, a P-V2 language, offers the following answer. In Yiddish, V2 is achieved by V-movement to INFL, rather than to Comp. That is why in embedded clauses V2 is possible even in the presence of the complementizer *az* as shown in (4).

- (4) Avrom gloybt az Max shikt avek dos bukh
Avrom believes that Max sends away the book

The first constituent, or Topic, would therefore have to occupy the Spec of IP position. As this position is usually assumed to the position of subjects, she proposes that Yiddish allows Sp(IP) to function either as an A or an A-bar position. Since I is free for the verb to move into even in embedded clauses, one gets the desired result - parallel V2. This is illustrated schematically below:

CP - the "minimally necessary A-bar position" to be generated in such a case yielding V3 order. However, we know this is not the case.

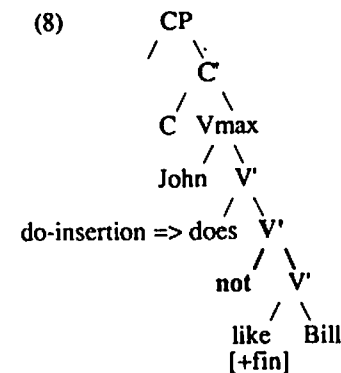
2.2. Weerman (1989):

One of the goals that Weerman sets for himself is a unified account of V2. Thus, the A-V2 vs. P-V2 contrast is one of the problems that he tackles head-on.

His basic insight about the two P-V2 Germanic languages - Yiddish and Icelandic - is that these are very much like Modern English which has lost productive V2 altogether. Therefore, his theory of V2 is in the main catered directly to the A-V2 languages.

His proposal is this: UG allows only two, and not three, verbal positions in a clause - C and V. All root clauses are "referential", and in referential clauses, the verb needs to be "(S)-identified" verbally. The S-identifier of V is the C. This means therefore that the C has to be verbal in root clauses. V-to-C, which gives rise to V2, is a means of achieving such verbal S-identification.³ Embedded clauses are non-referential (pronominal or anaphoric) in the typology of his "verbal" Binding Theory, and in such clauses, the identifier of the V must be non-verbal, i.e., a lexical complementizer.

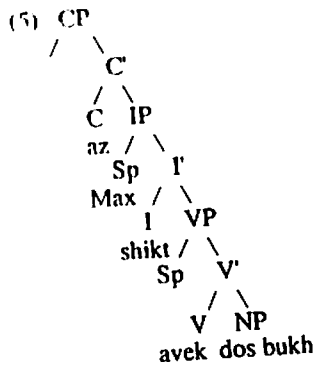
He notes that P-V2 languages seem to have a third verbal position between the C and the base V position. The most likely candidate for this position is I, but since he wants to eliminate the I node from clause structure universally, he cannot bring it back just for the P-V2 languages. Therefore, Weerman claims that the "third" verbal position in these languages arises due to the fact that certain elements, such as negation, act as blockades, blocking the percolation of the finiteness feature from the V to S (which is Vmax in his system). In an English sentence like (8) below, a dummy auxiliary is inserted to bear the finiteness feature of the main verb.



He takes this account for English and extends it to Yiddish and Icelandic. According to Weerman, the relevant difference between English and these languages is that while English prohibits lexical verbs (theta-assigning verbs - cf. Pollock 1989, Chomsky 1989) from moving over the blockade, Yiddish and Icelandic allow it. Therefore, even in the presence of a lexical Comp, the finite V appears to be in second position, having moved over the blockade. In root clauses, the movement of the verb is to C (via Aux, if there is a blockade), as in German, since C must be verbal.

3. A non V2 language like English achieves the identification of V "inherently" by structural means.

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Additional evidence for such a structure is said to be provided by embedded questions which allow both the Spec of CP and the Spec of IP to be filled, giving the appearance of V3 order.²

- (6) Ikh veys nit [vuhin ir geyt]
I know not where you go
- vs.
- (7) *Vuhin ir geyt?
Where you go

While Diesing takes these facts to be evidence for an analysis of Yiddish V2 as movement to I, there are certain questions one could raise about her analysis.

First of all, her analysis depends on the assumption that in matrix clauses, there must not be any Comp or the projection of Comp. She shows that with a CP, the facts of Yiddish will not receive an account, since if matrix clauses had CPs, one would wrongly predict that Topics and Wh's could co-occur in direct questions and that V3 order will be found.

However, this begs the question why Yiddish matrix clauses cannot have a CP projection, especially in view of the fact that German V2 clauses must have a CP, if the standard account has any truth in it. She proposes (1990:55) what might appear to be the principle banning the projection of CP in Yiddish main clauses which stipulates that "only the minimal amount of A-bar structure" should be generated. She claims that this guarantees that a CP will not be generated in matrix clauses in Yiddish.

The problem with this stipulation is that it is rather vague. For example, under one interpretation of this principle main clauses could have both CP and IP if there is both a Topic and a WH-element, since the minimal amount of A-bar structure needed in this case appears to call for both the Spec of IP and of CP.

One might try to circumvent the generation of Spec of both categories by stipulating that Yiddish main clauses can have at most one A-bar position, but this appears very ad hoc given the reported possibility of having both WH and Topic in indirect questions.

Also, given Diesing's claim that the Spec of IP may be an A-position when the subject occupies it, the one A-bar Spec restriction should still allow the Spec of

2. Apparently, this is controversial. While Diesing and her informants accept such sentences, Travis (1984) and Lowenstamm (1977) reports that such sentences are ungrammatical.

To summarize, in Weerman's account P-V2 in root clauses is V-to-(Aux)-to-C, while in embedded clauses, it is V-to-Aux. While his account is flexible enough to extend from A-V2 to P-V2, the success of his account for P-V2 languages rests heavily on his "blockade theory".

A problem with this theory is that while English provides some evidence that elements such as a Neg block verb movement - in the form of the Do-Insertion rule and non-inflecting modals - Yiddish and German are exactly alike in relevant respects to make an independent confirmation of the theory difficult.

A technical difficulty with his proposal is that since the Aux position is simply the adjoined position above the blockade, it is difficult to guarantee that it will be the second position in the S, since the intervention of adverbials could turn it into a third or fourth position. To guarantee that it will be second, one must treat all these elements as "blockades", forcing the verb to move over them. This does not seem highly motivated.

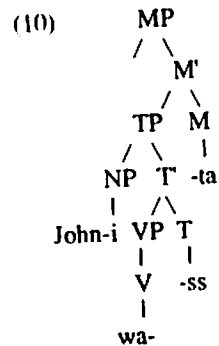
However, there are various elements of his overall approach which find a direct counterpart in our analysis, which was developed independently of his work.

3. A Proposal:

In order to begin our query for a parametric theory of V2, let us make the plausible assumption that clause-type or mood marking is required universally on all clauses. However, languages may differ in the way in which these distinctions are marked.⁴

The methodologically sound way of finding an answer to the question of the ways in which mood can be marked is to look at languages that offer overt morphosyntactic clues. We have seen that this is the situation with Korean. Korean possesses separate lexical categories of mood markers. These are morphologically verbal affixes. Since on the surface they are suffixed to the verbal stem, we can hypothesize that verb movement to Mood obligatorily takes place.

(9) John-i wa-ss-ta
John-NOM come-PAST-DECL



We can assume that it is the verbal nature of these mood markers, reflected in their morphological status, which triggers verb movement, and that verb movement to Mood can make mood marking visible for the clause.

We propose that something very similar is going on with V2 clauses. The

⁴ This is similar to Weerman's idea that the "S-identification" of verbs may take various forms.

sole difference between V2 languages and Korean is that while there is an affixal mood morpheme overtly present to attract verb movement in Korean, the (verbal) mood in V2 languages (at least the Germanic languages - Kashmiri has overt mood markers that are, of course, verbal affixes) is empty at D-structure. However, it attracts the verb for the same reason that the affixal mood morphemes do in Korean - to make mood marking visible (cf. Weerman 1989)

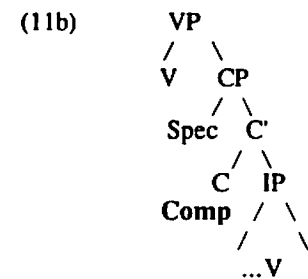
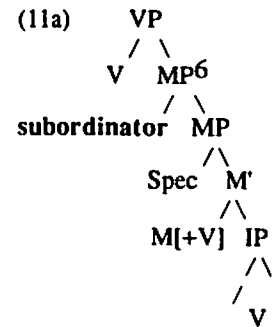
This provides an immediate answer to a fundamental question for any V-raising account of V2 - namely, why the impossibility of V2 in the presence of lexical Comps in the A-V2 languages does not lead to ungrammaticality.⁵ It is because the function performed by V2 is fulfilled by the lexical complementizer which also indicates mood/clause-type distinctions. It also answers the question of why the movement of verb can fulfill this function in V2 clauses- mood is verbal.

Given this, we must recognize in UG at least two general ways in which mood marking can be made visible - verbal and non-verbal. Korean and V2 clauses employ verbal mood identification, whereas languages like Chinese, with separate mood particles (such as the question particle *ma*) and non V2 clauses headed by lexical complementizers choose non-verbal mood identification.

4. Subordinators and Complementizers:

With this background, let us now put forth the hypothesis that the lexical complementizer of V2 languages may either be pure Subordinators (or subordinator comps), or may indicate both the clause type/mood and subordinate status. We shall reserve the term "complementizer" to refer to the latter category. Distinct from this newly defined category of Comp, we will also recognize lexemes whose sole function is mood-marking, Mood.

In the former languages, the structure of embedded clauses will be as in (11a), while in the latter, it will be as in (11b).



From this, we can make the deduction that if a V2 language has Comp's, V2 will be prohibited in subordinate clauses, since there is no available landing site (Mood) for the verb. On the other hand, if the V2 language has a subordinator and Mood, V2 is still possible (to Mood) and required in subordinate clauses, since otherwise there would be no way of determining the clause type (we are assuming

⁵ Weerman's answer to this question is that lexical complementizers may also function as S-identifiers of verbs.

⁶ We have treated the subordinator as being adjoined to MP and not heading its own projection. We might have to allow subordinators to project a full X-bar theoretic structure in order to account for some subtleties of WH-movement differences between Kashmiri and Yiddish.

with Weerman that mood-marking must be PF-visible, i.e., overtly marked in one way or other).

Turning now to the German (A-V2) vs. Yiddish-Icelandic-Kashmiri (P-V2) distinction, we hypothesize that German Comps are of the English type - lexicalizing both subordinate status and complement type while the latter group of languages do not possess Comps but Mood and Subordinators. Thus, German shows the main/subordinate asymmetry, while the latter languages do not.

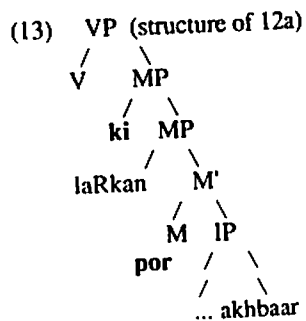
5. Asymmetries Explained:

One of the desirable consequences of this account is that a principled explanation now emerges as to why the clausal structures of main and subordinate clauses in P-V2 languages like Kashmiri and Yiddish have to be different, a result Diesing wanted for Yiddish but could not explain. Since the element that Diesing analyzed as Comp (*az*) in Yiddish in our account is a simple marker of subordination, it cannot be available in a root context, by hypothesis, while it must be available in an embedded context, yielding different structures for root and embedded contexts.

A similar account can be given for the clausal structure of Kashmiri, a P-V2 language outside the Germanic family. As we can see in (12) below, Kashmiri allows V2 in both root and embedded clauses.

- (12a) laRkan por akhbaar
boy-ERG read-PST newspaper
- (12b) az por laRkan akhbaar
Today read-PST boy-NOM newspaper
- (12c) akhbaar por laRkan az
newspaper read-PST boy-NOM Today
- (12d) me chi patah ki laRkan por akhbaar
I-DAT AUX know that boy-ERG read-PST newspaper
- (12e) me chi patah ki akhbaar por laRkan
I-DAT AUX know that newspaper read-PST boy-ERG
- (12f) me chi patah ki az por laRkan akhbaar
I-DAT AUX know that Today read-PST boy-ERG newspaper
I know that the boy read a newspaper today.

Unlike root clauses, embedded clauses with V2 begin with the lexeme *ki*, which is taken to be the complementizer in most accounts of Kashmiri and other Indic languages. We propose here that *ki* is a simple marker of subordination. Therefore, only the subordinate clause has an additional layer of structure above the MP, but both clauses possess a verbal M node, which is responsible for the P-V2 observed in Kashmiri.



A summary of the parametric theory of V2 is given in (14):

(14)

- I. Mood marking is obligatory in all clauses, main and subordinate.
- II. The strategies of Mood marking in Universal Grammar may be verbal (empty mood or affixal mood attracting V-movement) or non-verbal (structural or through lexical complementizers).
- III. The category known as "Comp" should be decomposed into Mood and Subordinators. Some languages lexicalize/conflate the two, whereas others lexicalize them separately.

Choice of options in II and III interacts to yield A-V2 and P-V2 languages. P-V2 arises when a language has an empty Mood that hosts verb movement in embedded clauses. However, this is possible only if the language lexicalizes Mood and Subordinator separately. If they are lexicalized together as Comp, another means of Mood-marking must be sought, one that crucially does not involve verb movement to empty Mood. This is the situation with embedded clauses in A-V2 languages. In the next section, we turn to some consequences of our proposal.

6. Some Consequences:

6.1. Subordinators and WH-movement in Indirect Questions:

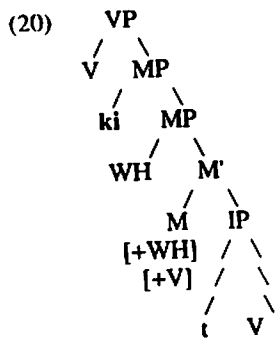
In languages with simple subordinator Comps, the elements analyzed traditionally as Comp - Korean *ko* and Japanese *to* and Kashmiri *ki* and Hungarian *hogy* - always proved problematic when viewed as items parallel to *that* because in indirect questions, the WH-word follows these lexemes rather than preceding them (as it should under the CP analysis). We show an example of the relative ordering of WH and subordinator in Kashmiri to illustrate this point.

- (15) tse chay khabar ki kyaa kor tem
you Aux know that what did he
- (16) *tse chay khabar kyaa ki kor tem
you Aux know what that did he

This is in contrast to the situation in Swedish, Norwegian and Dutch (and also Danish) where in indirect questions, the WH-word precedes a lexical complementizer [adapted from Platzack 1986:41(ex. 33b), Taraldsen 1986:8(ex. 16), and Weerman 1989:51(ex. 87)].

- (17) Han undrar vem; som e; inte hade oppnat dorren
I wonder who that not had opened the door
- (18) Vi vet hvem som ikke skjonte dette sporsmalet
We know who that not understood this question
- (19) Henk vraagt [c" wie; [c (of) [t; Marie een boek geeft]]
H asks who whether M a book gives

We can account for this contrast in the following manner. It is natural to assume that WH, when it moves in syntax, moves to the Spec of of the head that carries Mood information, since WH is sensitive to clause-type and we can assume that this sensitivity is reflected as Spec-Head agreement. Therefore, in Kashmiri, where Mood and Subordinator are kept apart in embedded clauses, WH should move to the Spec of M, as shown in (20) below. This is also the head to which V moves in V2. This gives rise to 'ki-WH-Vf' order, as desired.



As shown earlier, there is overt evidence in Kashmiri for the dissociation of Mood(verbal) and Subordination. Some more examples showing the dissociation are given below:

- (21a) tem dop ki su gatshi-hee
 he-ERG said that he-NOM go-SUBJUNCTIVE
- (21b) tem prutsh ki su gatshy-aa
 he-ERG asked that he-NOM go-INTER

However, Swedish, Norwegian, Dutch are A-V2 languages, which means that they have complementizers which conflate Mood and Subordinator. Therefore, when WH-movement takes place in indirect questions, WH will move to the Spec of Comp, yielding 'WH-Comp' order. Since there are no Subordinators, by hypothesis, nothing can precede the WH in the embedded clause.

6.2. Subordinators and Selection:

One fact about the element that has been analyzed as Comp in Korean is that it does not satisfy the selectional requirements of the matrix V. The account we have given of the complementizer system cross-linguistically yields a simple answer to this question. The element *ko* in Korean is simply a subordinator, therefore it is natural that it does not enter into any selectional relation vis-a-vis the matrix verb. This is also the case with Kashmiri *ki*, as shown by its presence even in indirect questions.

6.3. A-V2 Phenomena in Kashmiri:

Another aspect of Kashmiri syntax which would otherwise remain a puzzle receives an explanation in our approach. While we have treated Kashmiri as a P-V2 language, there are two situations where V2 is prohibited - in relative clauses and certain adverbial clauses.

- (22) [yus laRk amiir chu] su chu myenis baayis kitaab divaan
 which boy rich is he is my brother-D book gives
 The boy who gives books to my brother is rich
- (23) [yelyi bo paRhaaii khatam kar] bo gatsh kashiir
 when I studies finish do I go-FUT Kashmir
 When I finish my studies I will go to Kashmir

We believe it is possible in our system to give a principled account of this behavior. The relative clause is introduced by a WH-element and the adverbial clauses are introduced by the lexeme *yelyi*. We hypothesize that while Kashmiri dissociates

Mood and Subordinator in *ki*-clauses, the introducers of RCs and AdvCs are lexemes which conflate both Mood and Subordinator. If this is the case, we predict these clauses to behave like embedded clauses in German, showing no V2, since no Mood is available separately.

Our hypothesis that a language may possess both kinds of complementizer system is not ad hoc. When we turn to languages with morphologically rich complementizer systems, we see exactly the situation we hypothesized for Kashmiri. Nominalizations in Korean and Quechua provide the relevant examples. Korean possesses an agglutinative, and partially templatic type of morphology. The following is a rough representation of templatic slots in verbal morphology (Yoon 1989).

- (24) Stem-(Caus/Pass)-(Honorific)-Tns-(Tns/Aspect-Retro Tns)-Mood-(SUB)
mek-hi-si-ess-ess-te-la-ko
eat-PASS-HON-PAST-PERF-RETRO-MOOD-SUB

The affixes indicating Mood occupy slot 7. When a clause is nominalized, the nominalizing affix takes up the same slot.

- (25) John-i pap-ul mek-ess-um
 J-NOM meal-ACC eat-PAST-NML
 'John's having eaten the bread'

However, while we have seen that the verbal Mood markers can be followed by the Subordinator *ko*, the nominalized verb does not allow further affixation of *ko*.

- (26) *Bill-un [John-i pap-ul mek-ess-um-ko] anta
 Bill-TOP John-NOM meal-ACC eat-PAST-NML-SUB knows

Yoon (1989) provides detailed evidence that nominalizer should be treated as a nominal Comp, based on its occupying the same morphological slot and on its sensitivity to selection by matrix predicates. This is the kind of behavior expected of Comps in languages like English. On the basis of this and the obvious subordinate status of nominalized clauses, we can hypothesize that the nominal complementation system lexicalizes both subordination and mood, while they are kept apart in the verbal system. Thus, within the same language, we have both the Kashmiri type and the German type of complementation systems. This certainly makes plausible the account we offered for Kashmiri non-V2 clauses.

To conclude, in this paper, we have proposed a parametric account of the V2 phenomenon that generalizes over Germanic and Kashmiri. We did so by dissociating the category "complementizer" into Mood and Subordinators. Assuming that clause-type marking is obligatory, we; (a) argued that verb movement will be prohibited in the subordinate clauses of the A-V2 languages (e.g., German), whose Comps indicate both the clause-type and the subordinate status, but possible in P-V2 (Yiddish, Icelandic, Kashmiri) languages, where the Comp is a simple subordinator, and (b) examined some consequences of this proposal.

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A Non-Unified Analysis of Agentive Verbs

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1. Introduction

In this paper we distinguish two subclasses of active verbs: direct causation verbs and indirect causation verbs. This distinction will be formalized in the lexical representation of the verbs by means of two different causation predicates: CAUSE and DO. We define CAUSE as the predicate that denotes indirect causation by an external argument, and DO as the predicate that denotes direct causation by an external argument.¹ The distinction between direct and indirect causation will be motivated by the analysis of argument structure alternations exhibited by change of state and motion verbs in English and French. Our focus will be on verbs that manifest alternations in the realization of arguments in subject position.

We begin by examining two English alternations that arise with verbs that are simultaneously CAUSE and DO verbs. Then we consider verbs in English and French that optionally manifest either direct or indirect causation. Comparing the two languages, we find that where English appears to have only one causative-inchoative alternation, French clearly has two. It is a well-known fact that the mapping from semantics to

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¹ The terms CAUSE and DO have been borrowed from the lexical semantics (cf. Lakoff 1965, 1972, Dowty 1979). It should be pointed out that our use of these terms departs somewhat from that of these authors. In particular, we do not use the notions of intentionality or volitionality to distinguish these two predicates.