Semantic linking and the relational structure of desideratives*

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Abstract

Cross-linguistically, desideratives may be differentiated on the basis of two properties. First, they may be structure building, *where the predicate WANT has an argument of its own (a subject bearing the agent/cognizer role), or* inheritance *constructions, where WANT introduces no arguments. Second, inheritance desideratives are further differentiated as to whether WANT is semantically* linked *to an inherited argument (interpreted to be the agent/cognizer) or semantically* free *thereby taking on a modal or aspectual meaning.*

A relational-grammar treatment of these three types of desideratives is straightforward, given the concepts of union, revaluation, *and* inheritance *previously posited for the analysis of causatives. Data involving passives and desideratives, however, prove to be more difficult to handle, as there exists cross-linguistic variation in the grammatical relation of the nominal serving as the agent/cognizer of WANT: this nominal is the passive subject in Korean, the passive agent in Halkomelem Salish, or either of these in Micmac. However, a principle of semantic-role-to-grammatical-relation mapping which stipulates that the agent/cognizer must be linked to some initial subject together with a union analysis of desideratives permits variation of the type found.*

This paper has two purposes. It seeks first to outline the properties of desiderative constructions, that is, constructions involving an affix, auxiliary, or higher verb that means (or used to mean) 'want'. On the basis of data from several languages, section 1 describes three common types of desideratives. Section 2 gives a formal account of the three desiderative constructions within relational grammar; this is a straightforward matter given the concepts available in that theory.

Second, I discuss some data involving passives and desideratives from Halkomelem, a Salish language spoken in southwestern British Colum-

bia. Section 3 shows that these data prove to be paradoxical within a relational treatment. Although I refer only peripherally to other frameworks here, it is clear that the Halkomelem data are problematic for analyses of desideratives given elsewhere, including Grimshaw and Mester (1985) and Jensen and Johns (i.p.).

The basic problem is that most theories share the assumption that 'control' structures will be cross-linguistically restricted to involve only the final subject of the complement predicate. For example, government/ binding theory, which represents the controlled nominal as PRO, limits PRO to surface-structure complement subject, so (1) and (2) but not (3) or (4) are grammatical.

(1)   I want PRO to go.
(2)   I want PRO to be elected.
(3)   *I want John to like PRO.
(4)   *PRO wants John to be liked by him.

The Halkomelem data call this assumption into question. Either desiderative constructions cannot be treated as the theory equivalent of 'control' structures, or the view of how syntax and semantics interface in such structures must be broadened.

The relational solution to the paradoxical Halkomelem data which I propose in section 4 is, in fact, based on a combination of these tactics. Finally, section 5 presents a revised version of the cross-linguistic typology of desideratives which makes use of the concepts developed under the relational account.

1.   A typology of desideratives

An informal survey of the properties of desideratives suggests that there are three common types cross-linguistically. Two major criteria distinguish the three types: first, whether or not the desiderative adds an argument to the clause, therefore increasing its valence (section 1.1); second, whether or not the desiderative actually means 'want' or has taken on a future meaning (section 1.2).

The morphological realization of the desiderative varies cross-linguistically as well as within languages. There appears to be some correlation between the above typology and the morphology of the desiderative, as briefly discussed in section 1.3. To facilitate this discussion, I refer to the entire construction as a desiderative but to the morphological element — auxiliary, suffix, etc. — which carries the desiderative meaning as WANT.

1.1. *Structure-building vs. inheritance WANT*

The first criterion for distinguishing desideratives is whether or not WANT subcategorizes for a subject argument which will be the thematic agent/cognizer in a manner similar to the agent/causer in causative constructions. Those which introduce an argument of their own I refer to as *structure building*. This concept is easily demonstrated by English examples like (5), where the subject 'I' plays only one role in the sentence, that of agent/cognizer of WANT.

(5) I want you to go.

In desideratives which are the opposite of structure building, referred to here as *inheritance* desideratives, WANT does not introduce a unique argument of its own but rather inherits the arguments of the inner predicate. This concept is most clearly illustrated in an ergative language, such as Eskimo, (6)–(7),[1] or Halkomelem, (8)–(9):[2]

(6) angutik   tiki- guma-vuk
     man-ABS arrive-want-3SG(SUBJ)
     'The man wants to arrive.'
(7) anguti-up   annak   taku-guma-vaa
     man- ERG woman-ABS see-want-3SG(SUBJ)/3SG(OBJ)
     'The man wants to see the woman.'
(8) ʔi   hənəmʔ- əlʔmənʔ tᶿə swəyʔqeʔ
     aux go-   want   det man
     'The man wants to go.'
(9) ʔi   kʷənʔ -ət -ʔəlʔmənʔ- əs   tᶿə swəyʔqeʔ tᶿə šəptən
     aux take- tr- want-   3erg det man   det knife
     'The man wants to take the knife.'

When WANT is attached to an intransitive predicate, as in (6) or (8), the desiderative is also intransitive, as seen by the ABS case in (6) and by the lack of ERG agreement in (8). Transitive predicates, however, form transitive desideratives, as seen by ERG case or agreement in (7) and (9). Thus, the suffixes *-guma* in Eskimo and *-ʔalmən* in Halkomelem are structure inheriting; they do not subcategorize for an argument of their own. In languages with two expressions of WANT, structure building vs. inheritance is often the distinguishing characteristic. In addition to *-guma*, Eskimo has a suffix *-kqu* 'want, order' which occurs only in structure-building constructions, as illustrated in (10) and (11).

(10) tiki- kqu- vauk
     arrive-order- 3SG(SUBJ)/3SG(OBJ)
     'He$_i$ orders him$_j$ to arrive.'

(11)   anguti- up   annak   tiki- kqu- janga
       man-   ERG woman-ABS arrive-want- 3SG(SUBJ)/3SG(OBJ)
       'The man wants the woman to arrive.'

Since *kqu* adds an argument, the desiderative is finally transitive even though the inner predicate *tiki* 'arrive' is intransitive. The two Eskimo WANTs contrast in this respect, as seen by (6) vs. (10).

Korean has several forms of WANT. one of which is the auxiliary verb *siph-ta*, as in (12).[3]

(12)   Na- nɨn ka-ko   siph-ta
       I-   TOP go-cmp want-ind
       'I want to go.'

This form is not structure building, as *(13) shows:

(13)   * Na-nɨn   John-i/-il   ka-ko   siph-ta.
         I-   TOP -NOM/ACC go-cmp want-ind
         'I want John to go.'

Higher verbs like *wenhata* or *palanta* can be structure building, however, as in (14).[4]

(14)   Na- nɨn John-i   /-il   ka-ki- lil   pala-n- ta.
       I-   TOP J.   -NOM/ ACC go-cmp-ACC want-pr-ind
       'I want John to go.'

Halkomelem also makes use of this distinction. The suffix -ʔəlmən only inherits structure (compare [8]); it cannot build structure, as seen in *(15):

(15)   * i   cən hənəmʔ- əlʔmənʔ tᶿə John
          aux 1sub go-   want   det J.
          'I want John to go.'

The higher predicate *sƛ̓iʔ*, in contrast, is always structure building. This predicate, which appears in a nominalized form with the agent/cognizer referenced as a possessive, takes a nominalized embedded clause, as illustrated in (16) and (17).

(16)   nə s-   ƛ̓iʔ k'ʷə- nə- s-   nemʔ
       1pos nom- want cmp- 1pos-nom- go
       'I want to go.'
(17)   nə s-   ƛ̓iʔ k'ʷ- s-   nemʔ- s   tᶿə swəyʔqeʔ
       1pos nom- want cmp- nom- go-   3pos det man
       'I want the man to go.'

As seen especially in (16), *sƛ̓iʔ* and the embedded predicate each have

a subject argument, hence the double occurrence of the 1st person possessive prefix.

Structure building vs. inheritance is therefore seen to be a major criterion distributing WANT in Eskimo, Korean, and Halkomelem.

1.2. *Linked vs. free WANT*

The above discussion has centered on the argument structure of desideratives. Consideration of their semantics provides a second means for distinguishing them. In the case of structure-building WANT, the argument added to the construction by WANT is always the agent/cognizer. Inheritance WANT is more complicated: since WANT does not have an argument of its own, either it will link onto an argument of the inner predicate or it will be semantically free.

The former case is illustrated by the Halkomelem examples in (8) and (9) above. For example in (8), *swəyʔqeʔ* 'man' is interpreted as being both the agent of 'go' and the agent/cognizer of 'want'. In other words, linked WANT selects an argument of the inner predicate for its semantic interpretation.

In contrast, free WANT will remain unlinked. No nominal is uniquely singled out as the agent/cognizer; rather, WANT will be taken to modify the entire inner predicate. Free WANT is thus semantically more akin to aspect or mode and often takes on the meaning of a habitual or near future.[5] English 'want' can be used in this sense, as in the examples in (18) and (19).[6]

(18) Does your car want to/wanna stall in first gear?
(19) This glue doesn't want to/wanna stick.

Some languages, for example Korean, do not have this latter type of WANT. Thus, *-siphta*, discussed above, appears only in situations where there is clearly an animate agent/cognizer.

Linked and free WANT are sometimes difficult to differentiate, especially in languages like Halkomelem where the same form is used for both. Linked WANT can often be recognized because it places semantic restrictions on the agent/cognizer. In contrast, free WANT is blind to the properties of the nominals, looking only for congruity between the clause and whatever aspectual qualification WANT expresses in the language.

Halkomelem *-ʔəlmən* is a case of linked WANT. This can be seen by contrasting (20) and (21):[7]

(20)

$$
\text{ʔi   cən} \quad
\begin{cases}
\text{hənəmʔ-} & \text{əlʔmənʔ} \\
\text{go-} & \text{want} \\
\text{he.yʔ-} & \text{əlʔmənʔ} \\
\text{build canoe-} & \text{want} \\
\text{ʔiʔɬtənʔ-} & \text{əlʔmənʔ} \\
\text{eat-} & \text{want}
\end{cases}
$$

ʔi   cən
aux 1sub

'I want to go/build a canoe/eat.'

(21)

$$
\text{*ʔəwə cən   ʔi.nʔ} \quad
\begin{cases}
\text{papəs-} & \text{ʔəlʔmənʔ} \\
\text{get hit-} & \text{want} \\
\text{ɬiʔɬəc'-} & \text{ʔəlʔmənʔ} \\
\text{get cut-} & \text{want} \\
\text{ʔiʔk'ʷ-} & \text{ʔəlʔmənʔ} \\
\text{get lost-} & \text{want}
\end{cases}
$$

neg 1sub aux-1ssub

('I don't want to get hit/get cut/get lost.')

In (20), where the inner predicate is agent-oriented, -ʔalmən is possible, but in (21) where it is patient-oriented, -ʔalmən is impossible, even though the clauses seem perfectly logical, especially in the negative as in (21). Examples like (21) would be rendered by the structure-building sƛ'iʔ, for example (22).

(22) ʔəwə nə s   -ƛ'iʔ -əs   k'ʷə-nə- s-   papəs
       neg 1pos nom-want-3ssub cmp-1pos-nom-get hit
       'I don't want to get hit.'

However, Halkomelem -ʔalmən also appears with patient-oriented predicates, but in these cases the desiderative construction is clearly representing a natural or unavoidable future, as in (23) and (24):

(23) ʔi   cən tu wəɬ   məq'- ʔəlmən
       aux 1sub just already full- want
       'I'm getting rather full.'
(24) ʔi q'ʷəq'ʷəlʔ -əlʔmənʔ tᶿə sθ'u.mʔ
       aux ripe   -want   det berry
       'The (last of the) berries are almost ripe.'

I take these to be cases of free WANT: for example, it is nonsensical to ascribe 'wanting' to 'the berries' in (24).

The two types of -ʔalmən are clearly different semantically, as shown by the fact that a desiderative with sƛ'iʔ can be substituted for the former but not the latter; compare (16) with *(25).

(25) *s- ƛ'iʔ-s   kʷ- s-   q'ʷəq'ʷəlʔ- s   tᶿə sθ'u.mʔ
       nom-want-3pos cmp-nom-ripe   3pos det berry
       'The berries want to be ripe.'

1.3. *Summary: desiderative morphology*

The data discussed above support a three-way typology of desideratives as summarized in Figure 1. Each language discussed shows an interesting correlation between the type of desiderative and its morphological realization. Although a small sample, these languages suggest several generalizations.

All three types of desideratives seem to exist in English, and the same verb form *want* is used in each case.[8] Korean, Eskimo, and Halkomelem have two forms of desideratives, one for structure building and a second for inheritance. In Korean and Halkomelem, the former is a free verb form (albeit nominalized in Halkomelem) and the latter is a verbal suffix; in Eskimo, both types of WANTs are verbal suffixes. Although it may seem that there is no correlation between the form and type of the desiderative, I am unaware of a language where inheritance WANT is a free form while structure-building WANT is an affix, suggesting that, where a language allows predicates to be expressed as verbal affixes, this option will very likely be taken for inheritance WANT.

The fact that there are languages like Korean which do not seem to have free WANT, where a future meaning is assumed, suggests that the future use is an extension of other types of WANT, rather than vice versa. Furthermore, that free WANT in Halkomelem shares a form with linked WANT rather than structure-building WANT is no accident under the above typology. It is easy to see that since linked and free WANT have the same argument structure, a small shift in the semantics, that is, the delinking of the agent/cognizer of WANT, is all that is needed to develop the latter from the former.
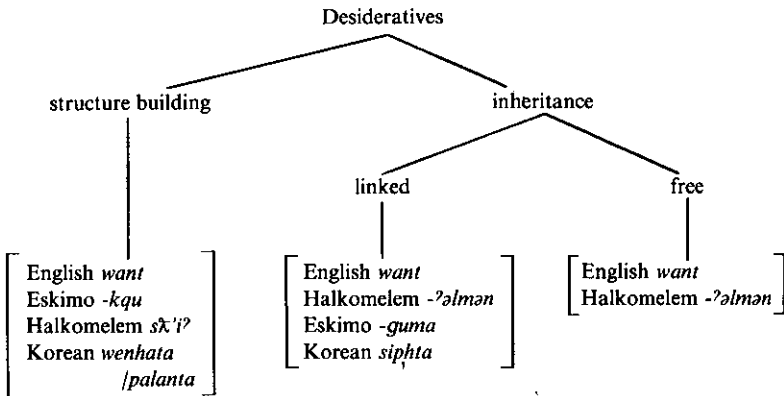

Figure 1. *A typology of desideratives*

2.   A relational analysis: desiderative union

The previous section presented a survey of the basic types of desideratives which appear cross-linguistically. This section gives a relational-grammar analysis of the three types of desideratives discussed above.

Desideratives, like causatives, can be expressed in several ways: WANT can be a higher verb, a serial verb, an auxiliary, or an affix. Higher-verb WANT appears in a periphrastic construction which is biclausal at surface structure. Examples of this include Halkomelem *sƛ'i?*, as in (16) and (17), where it is clear that there are two clauses in the surface form' since agreement is referenced on both the main and the complement clause predicates; and Korean, as in (14), where the nominalized complement clause can take ACC case. English also provides evidence for a biclausal surface structure; in examples like (26) reflexives, obligatory with a clausemate antecedent, are not possible:

(26)   *I wanted John to see myself.

Other than the fact that periphrasic constructions may involve raising or control, they are essentially uninteresting from a relational viewpoint.[9] This paper focuses on the more challenging topic, desideratives expressed by verbal affixes or auxiliaries which are monoclausal at surface structure.

My discussion of affixial/auxiliary desideratives makes use of the analysis of clause union constructions developed by Davies and Rosen (forthcoming). They reformulate clause union, generally thought to be a merger of two clauses, as a totally monoclausal construction. For example, under their analysis, the French causative in (27) would be represented as in the stratal diagram in (28).

(27)   Cela fera rire tout le monde.
       'That will make everybody laugh.'

A single node (a) is the tail for all arcs in (28); thus, by definition, it

(28)

cela   faire   rire   tout le monde
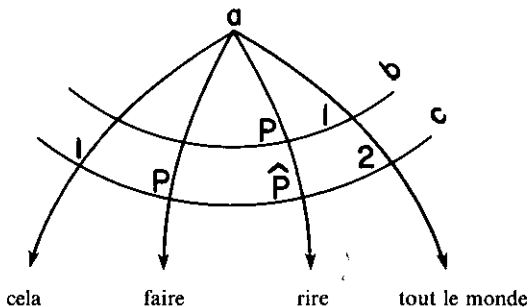
represents a single clause. However, there are nonetheless two P(redicates) in (28): *rire*, which will be referred to as the P1, and *faire*, the P2 or union P. Each P, including all the strata in which it heads a P arc, is referred to as a P sector.[10] The P sector for the P1 is the P1 sector, etc. The first and last strata in a clause are referred to as the initial and final strata, that is, *b* and *c* respectively in (28). Parallel to this, the first and last strata of a P sector are referred to as the P-initial and P-final strata; in (28), *b* and *c* are the P-initial and also the P-final strata in their respective P sectors. The P-initial stratum which contains a union P is referred to as the union stratum, for example *c* in (28). The 1 [subject] in a P-initial stratum is referred to as the P-initial 1; the 2 [object] in a union stratum is the union 2; etc.

Under this modified view of clause union, the union P and its accompanying arguments — a 1 in (28) — take priority over the elements in earlier P sectors; the earlier elements adjust according to the following schema:[11]

(29)　a.　A P-final 1 may be revalued as a union 2 or a 3 (per language-specific instructions).

　　　b.　Otherwise, all elements inherit their relations subject to the stratal-uniqueness law.

The stratal-uniqueness law (Perlmutter and Postal 1983; revised Davies and Rosen forthcoming) will allow only one element bearing a P, 1, 2, or 3 relation in a stratum.

We see the effect of (29) in the causative in (28). The P1-sector 1 is revalued as a 2 in the P2 sector; the P1 is placed *en chomage*; P *chomeurs* in causatives appear as infinitives in French.

Turning now to desideratives, we see that the constructs introduced above allow for an account of the three types given in section 1. The basic idea is that desideratives where WANT is expressed as an auxiliary or verbal affix are multipredicate clauses involving 'desiderative union'.[12] An analysis of structure-building vs. inheritance cases is presented in section 2.1. One additional mechanism is required to distinguish linked vs. free WANT, as discussed in section 2.2.

2.1.　*Structure building vs. inheritance*

Structure-building vs. inheritance desideratives are easily distinguished within a union analysis; I demonstrate this using Eskimo *-kqu* and *-guma*.

Structure-building desideratives are exactly like causatives; the union P

will bring along an argument of its own — a 1 nominal; the P1-sector elements adjust according to the schema in (29).[13] Thus, an example like (10) above will be represented as in (30), which is exactly parallel to the French causative in (28) above.

(30)

|			
tiki	-kqu	'he'	'him'
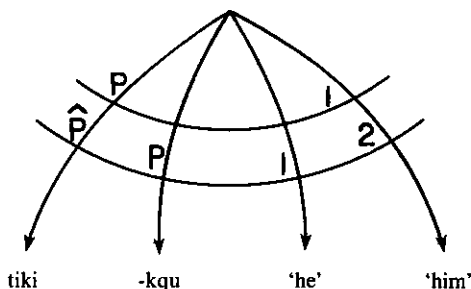
In Eskimo, the P1-sector 1 is revalued as a 2 (hence it appears in ABS case and is referenced by OBJ agreement); the union 1 is the final 1 (hence it appears in ERG case and is referenced by SUBJ agreement). As seen by examining the verbal morphology in (10), the P2 follows the P1 in Eskimo.

In inheritance desideratives, the union P is not accompanied by an argument.[14] Thus, the nominals of the P1 sector are free to inherit their relations according to (29), as illustrated in (31), the representation of (6):

(31)

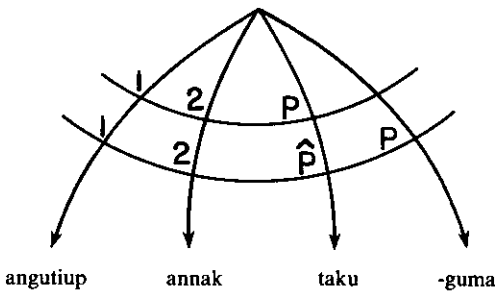|		
angutik	tiki	-guma
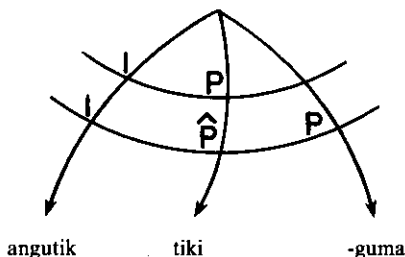
As (31) shows, the final stratum is intransitive (there is a 1 but no 2); the final 1 appears in the ABS case and is referenced by SUBJ agreement.

In an example like (7), where P1 is transitive, both the 1 and 2 inherit their relations, as represented in (32); hence they appear in the ERG and ABS cases respectively:

(32)

angutiup   annak   taku   -guma

The difference between structure-building and inheritance desideratives — whether or not WANT brings in its own argument — is captured very simply under this account. Also the final transitivity of (10) and (7) but the final intransitivity of (6) are handled without further device.

2.2. *Linked vs. free desideratives*

The concept *initialize* (Dubinsky 1985; Davies and Rosen forthcoming) can be used to capture the difference between linked and free desideratives.[15] We say a predicate (Pn) initializes a nominal if a predicate's lexical entry authorizes the nominal to bear a certain grammatical relation in the P-initial stratum of the Pn sector. Furthermore, when Pn initializes a nominal, it assigns a semantic role to it. So, for example, a transitive predicate would initialize a 1 and a 2 with the semantic roles of agent and patient, respectively.

In the case of linked desideratives, WANT initializes a 1 with the semantic role of agent/cognizer, for example, the circled nominal in (33), the representation of the Halkomelem example in (8):

(33)

nem⁷   -⁷əlmən   swəy⁷qe⁷
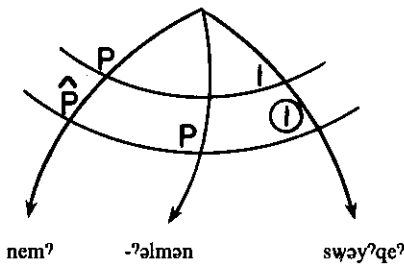
The circle represents the dual status of the nominal: having been

initialized by the P1, it inherits its P1-sector relation in the union stratum, but it is also a 1 which is initialized by the P2 — WANT. This analysis captures the fact that the 1 in (33) bears semantic roles to both the P1 and P2 without positing additional structure (for example, an extra arc headed by an empty category).

In contrast, no nominal is initialized by WANT in a free desiderative, as represented by the lack of a circled nominal in (34), the representation of (23):[16]

(34)

q'ʷəl   -ʔəlmən   sθ'u.mʔ
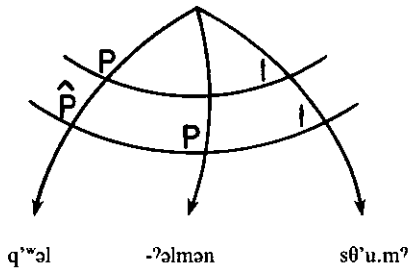
Thus, the semantic difference between linked and free desideratives — that the former but not the latter has an agent/cognizer — is represented in the syntactic analysis: WANT initializes a 1 in the former but not the latter case.

3.   A morphosyntactic paradox

The previous section presented a relational analysis for the three types of desideratives discussed in section 1. This section presents some data involving passives and desideratives which provide a challenge to the above analysis (section 3.1). I point out that another Amerindian language, Micmac, has been noted to have a similar construction (section 3.2). However, due to morphological differences between the languages, the analysis given for Micmac cannot be extended to Halkomelem (section 3.3). Thus, a problem for the syntactic analysis of desideratives arises.

3.1.   *Passives and desideratives in Halkomelem*

Many types of constructions can appear in the P1 sector of Halkomelem -*ʔəlmən*, including passive, as (35) and (36) exemplify:

(35) ʔi c'ec'əw'-ət-əmʔ-əlʔmənʔ θə Mary ʔə- ƛ' John
aux help- tr-intr-want det M. obl-det J.
'John was wanting to help Mary.'
(literally: 'Mary was want-helped by John.')
/*'Mary was wanting to be helped by John.'

(36) ʔi ʔə -ɬ ʔu leʔləm-n-əmʔ-əlʔmənʔ ɬə słeniʔ
aux int-pst just see- tr-intr-want det woman
ʔə- ƛ' John
obl-det J.
'Was John wanting to see the woman?'
(literally: 'The woman was want-being seen by John?')
/*'Was the woman wanting to be seen by John?'

The characteristics of a Halkomelem passive (see Gerdts 1981, forth-coming b) are the presence of both transitive and intransitive verbal suffixes, lack of ERG agreement, and the presentation of the 1 *chomeur* in the oblique case, as can be seen by contrasting the active clause in (37) with its passive equivalent in (38):[17]

(37) ʔi leʔləmʔ-nəxʷ-əs kʷθə swəyʔqeʔ ɬə słeniʔ
aux see- tr- 3erg det man det woman
'The man is seeing the woman.'

(38) ʔi leʔləmʔ-n-əmʔ ɬə słeniʔ ʔə kʷθə swəyʔqeʔ
aux see -tr-intr det woman obl det man
'The woman is being seen by the man.'

What is noticeable in cases involving passive and desiderative is the semantics: the initial 1 of the passive (the final 1 *chomeur*) and not the final 1 is interpreted as the agent/cognizer of WANT. This may seem strange, especially considering that most languages link with the final 1, as in the English data in (39); in fact, it might be claimed that the purpose of passive in (39) is to allow *John* to link with WANT.

(39) John wanted to be arrested by the police.

However, from a Halkomelem viewpoint, such an interpretation is not altogether surprising for two reasons: first, the passive functions very differently in Halkomelem than in languages like English, and second, a desiderative linking to the agent as in the English (39) can be expressed otherwise in Halkomelem.

Certain restrictions on Halkomelem clause structure make passive unavoidable in some cases. For example, 3rd person proper nouns are banned from appearing as surface ergatives in Halkomelem, hence *(a); rather, the passive (b) is used.

(40) a. ni   c'ew-ət-əs   kʷθə John ɬə sɬeniʔ
         aux help-tr-3erg det J.   det woman
         'John helped the woman.'

    b. ni   c'ew-ət-əm ɬə sɬeniʔ ʔə- x̌' John
        aux help-tr-intr det woman obl- det J.
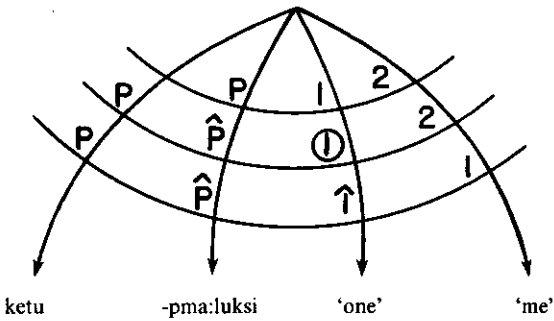   'The woman was helped by John.'

This restriction carries over to *-ʔəlmən* clauses, as (41) vs. (42) shows:

(41) *ni   c'ew-ət-ʔəlmən- əs   kʷθə John ɬə sɬeniʔ
      aux help-tr-want-   3erg det J.   det woman
      'John wanted to help the woman.'

(42) ni   c'ew-ət-əm-ʔəlmən ɬə sɬeniʔ ʔə- x̌' John
     aux help-tr-intr-want   det woman obl-det J.
     'John wanted to help the woman.'
     (literally: 'The woman was want-helped by John.')

If the meaning of (42) is to be expressed, *-ʔəlmən* would have to link with the 1 *chomeur*, since this nominal is unable to appear as a final 1.

Furthermore, Halkomelem has another means of expressing WANT, as discussed in section 1, the higher predicate *sx̌'iʔ*, which takes a nominalized complement clause, as in (16) above. Since the 1 of *sx̌'iʔ* can be coreferent with the final 1 of a complement passive, sentences like (43) are possible.

(43) s-   x̌'iʔ-s   ɬə sɬeniʔ kʷ -s- c'ew-ət-əwət ʔə- x̌' John
     nom-want-3pos det woman cmp-nom-help-tr-intr obl-det J.
     'The woman wants to be helped by John.'

We see that the two desiderative constructions allow either the agent of the passive, as in (42), or the final 1 of the passive, as in (43), to be interpreted as the agent/cognizer of WANT.

Regardless of the language-internal motivation for these constructions, the semantics of the linked *-ʔəlmən* in the above passives is problematic for the analysis of desideratives presented in the previous section. Under an analysis with passive in an earlier stratum than desiderative union, (42) would be represented as in (44):

(44)

         c'əwətəm   -ʔəlmən   John   sɬeniʔ

Since the 1 *chomeur* is the agent/cognizer of WANT, it should be initialized as represented in (44). However, such an analysis makes it impossible to make a syntactic generalization about initialized nominals in Halkomelem, since, as seen in (33) above, *-ʔalmən* typically initializes a 1. Furthermore, an analysis which would posit the initialization of the final 1 as in (45) would predict the wrong semantics; the final 1 — not the 1 *chomeur* — would be the agent/cognizer of WANT, an interpretation which is not available with *-ʔalmən*.

(45)

c'əwətəm	-ʔəlmən	John	sɬeniʔ

3.2. *Micmac: a syntactic solution*

A similar problem has been noted in the Algonquian language Micmac in Frantz (1976a, 1976b, 1986). Micmac has a desiderative prefix, as illustrated in (46).

(46) Ketu-pma:1-k
      want-carry- 1s:3s
      'I want to carry him.'

Micmac also allows a desiderative of a passive, as (47) shows.

(47) Ketu-pma:1- uksi- θ
      want-carry- pass- 1s
   a. 'I want to be carried.'
   b. 'One wants to carry me.'

Like Halkomelem, it is possible to interpret the 1 *chomeur* (unspecified) as the agent/cognizer of WANT as in the (b) gloss, but, unlike Halkomelem, the final 1 can also link to WANT, as in the (a) gloss.

Recasting Frantz's analysis into the current framework, (47) under the (a) reading would be represented as in (48); here there is passive in the P1 sector; the final 1 of the passive is initialized as the 1 of the union P.

(48)

ketu-   pma:luksi   'one'   'me'

In contrast, (49) represents the (b) reading; the initial 1 is initialized as the 1 of the union P; then there is passive in the P2 sector and thus the unspecified agent is a final 1 *chomeur*.

(49)

ketu   -pma:luksi   'one'   'me'

The differences between the (a) and (b) readings are accommodated without additional mechanism. Furthermore, a simple generalization concerning initialization is possible. The nominal which is initialized as a 1 is also the nominal which inherits the 1 relation in the P2 sector.

3.3.   *The satellite principle and Halkomelem morphology*

However, Frantz's analysis for Micmac does not provide a solution for Halkomelem due to a morphological difference between the two languages. I claim that the ordering of verbal morphology correlating with the relational structure of a clause is prescribed by the *satellite principle* (Gerdts 1980, 1981) which is stated informally in (50):[18]

(50)   *The satellite principle*
The order of verbal affixes from the root outward correlates with
the order of the levels in the corresponding syntactic representa-
tion.

This principle assures that, in a morphologically complex form such as
(((root) suffix 1) suffix 2), the syntactic phenomenon corresponding to
suffix 1 — not suffix 2 — is represented in an earlier stratum. For example,
the Halkomelem clause in (51) involves causative in an earlier stratum
than passive, as represented in the stratal diagram in (52).

(51)   ni[[[ʔiməš-]-st] -əm]   kʷθə John
       aux [[[walk]-caus]-intr]   det   J.
       'John was made to walk.'

(52)

| ʔiməš | -stəm | 'one' | John |
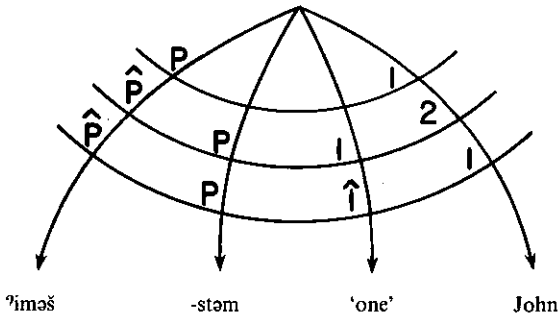
Since the causative is in the C2 stratum and the passive is in the C3
stratum, the satellite principle correctly predicts that the causative affix
precedes the intransitive suffix marking passive, as seen in the bracketing
in (51).

Returning to the Micmac examples above, we see that because WANT
is a prefix while the passive is a suffix, two different bracketings may be
posited corresponding to two syntactic analyses. The analysis in (48)
would be bracketed as in (53), since passive is in an earlier stratum than
desiderative union, but (49) would be bracketed as in (54), since desidera-
tive union is in an earlier stratum than passive.

(53)   [ketu- [[pma:l] -uksi]]
       [want- [[carry] -pass]]
(54)   [[ketu- [pma:l]] -uksi]
       [[want-[carry]]- pass]

In Halkomelem, where both the passive and ,desiderative are repre-
sented by suffixes, the morphological bracketing; given in (55) indicates

an analysis with passive in an earlier stratum than desiderative union, that is, the analysis in (45) above.[19]

(55)   [[[cew]-ət-əm] -ʔəlmən]
        [[[help]-tr-intr-] want]

However, in (45) the final 1 of the P1 sector initializes as the 1 of the union P and should be interpreted as the agent/cognizer of WANT; but as discussed above, the wrong nominal is posited as the agent of WANT under this analysis.

Thus, we have a paradox.[20] The syntactic representation demanded by the semantics (that is, one parallel to [49] above) and that demanded by the morphology ([45]) do not fit. Since Gerdts (1981) shows that the satellite principle holds otherwise in all constructions in Halkomelem, a polysynthetic language, we can assume that it should also hold in the case of the desiderative. Therefore, an analysis involving passive in an earlier stratum than the desiderative is the correct one for Halkomelem. Given that, we must conclude that our view of the interface of syntax and semantics requires revision, since the semantics is inappropriately represented in (45).

Doubt is also cast on the Micmac analysis above; no motivation outside of the semantic needs of the theory has been given for the morphological bracketing. The fact that (47) has two readings could be captured by a semantic rather than a syntactic generalization; therefore (47) may have a single structure, for example (48), which would parallel the structure required for Halkomelem.

I present a revised view of the semantics of desideratives which accommodates the Halkomelem and Micmac cases in section 4. But first I give an additional case of a construction where a union P links with an agent to show the relevance of the issue cross-linguistically and across construction types.

### 3.4.   *An additional problem area: motion auxiliaries*

Another case of the semantic agent taking priority over the final 1 has been noted by Aissen (1984). In Tzotzil, several motion verbs (such as *bat* in [56]) also serve as auxiliaries (as in [57]).

(56)   L- i- bat- otikotik.
        cp-B1-GO- 1plexc
        'We went.'
(57)   Ba   j-   ta-   tikotik   ȷ7ilol.
        WENT A1- FIND-1plexc   SHAMAN
        'We went to find a shaman.'

Examples of this type can also be analyzed as multipredicate clauses; the auxiliary may be treated as a union P, for example (57) could be represented as in (58).

(58)

| ba | ta | 'we' | j7ilob |
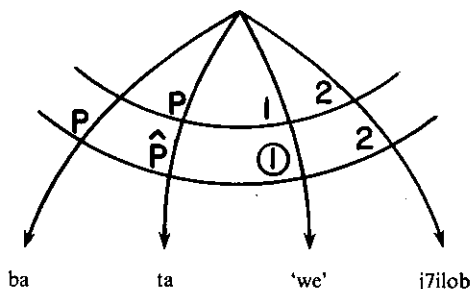
Passives such as (59) can appear with a motion auxiliary as in (60).

(59) L- i- 7ak'- b- at   jmoton   y-u7un kamikotak.
cp- B1-GIVE-io-pass MY-PRESENT A3-BY MY FRIENDS
'I was given my present by my friends.'

(60) 7ech' 7ak'- b- at- ik- on jmoton   y-u7un
PASS GIVE-io-pass-subj-B1 MY PRESENT A3-BY
kamikotak
friends
'My friends passed by to give me my present.'

That (60) is a passive can be seen by the passive morphology and the presentation of the agent in a *by* phrase. As Aissen notes, (60) is interpreted as involving the motion of the agent and not the final 1 of the passive; that is, (60) cannot mean 'I passed by to be given my present by my friends'.

Auxiliary constructions in Halkomelem exhibit the same phenomenon. The predicates *nem?* 'go' and *mi?* 'come' appear frequently as auxiliaries, for example in (61).

(61) ni   nem? nəw?iləm
aux go   go in
'He went in.'

When a passive follows the auxiliary as in (62), the agent — not the final 1 — is moving.

(62)   λ'e?wəɬ nem? kʷən-ət-əm θə sɬeni? ?ə -λ' John
too then go   grab-tr-intr det woman obl-det J.
/*'The woman went and was grabbed by John.'

Aissen (1984) does not give an analysis for constructions like (60), though she suggests a union analysis might be appropriate. However, such an account would be problematic. The semantics of (60) and (62) would indicate an analysis in which union is earlier than passive, as in (63); the agent is initialized as the 1 of the motion auxiliary.

(63)

nem?   k*ʷənətəm   John   słeni?
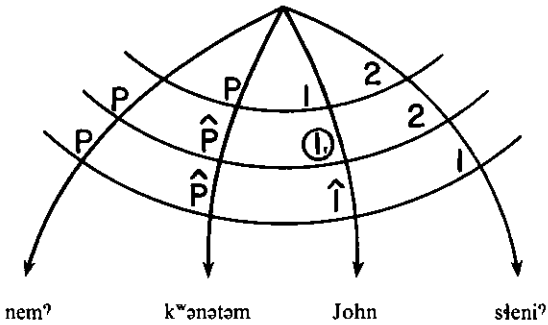
However, an analysis like (63) gets no support from the morphological structure of either Tzotzil or Halkomelem since the passive morphology appears on the P1 in both languages. As with the Micmac case above, there is no motivation outside of the semantics for analysis (63).

4.   Semantics and syntax interface

Although the interface of syntax, semantics, and morphology is easily achieved in relational grammar for a large number of constructions, the more exotic cases of desideratives and motion auxiliaries discussed above are problematic for the theory. Assuming that the satellite principle appropriately restricts the interface of the morphology and syntax, I must offer a view of the interface of syntax and semantics which can account for these problematic cases.

To put it more concretely, the problem arises due to the assumption that initialization — that is, assigning a grammatical relation and concomitantly an appropriate semantic role to a nominal — is compatible with inheritance; for example, x but not y in (64) is initialized twice (by the P1 and by the P2).

(68)

papəs   -ʔəlmən   cən
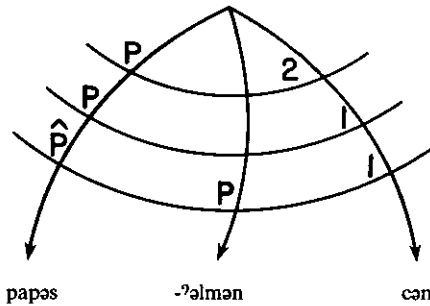
The initial 2 in (68) advances to 1 in the P1 sector and then inherits in the P2 sector.[24] However, if SR-to-GR mapping with Halkomelem WANT proceeds as above — the agent/cognizer of WANT maps to the initial 1 of the previous P sector — mapping cannot take place in *(67) since there is no initial 1 — only an initial 2 — as seen in (68), and thus the sentence is uninterpretable.[25]

Under this view of linking, unaccusatives are predicted to behave differently in a language like Halkomelem which links to initial 1 and a language like Korean which links to union 1. Unaccusatives are, in fact, allowed in the previous P sector in Korean, as in (69).[26]

(69) John-in   neme-ci-   ko siph-ci   anh-ta.
     J.   -TOP fall-become-cmp want-become not-ind
     'John doesn't want to fall.'

Although *John* is an initial 2 in (69), it advances to 1 and inherits that relation in the union stratum. The agent/cognizer of WANT maps to the entrant 1 as expected in Korean.

4.1.3. *Mapping to an undefined P-initial 1.*

Finally, languages could exist where the condition on mapping the agent/cognizer to a P-initial 1 makes no reference to the P sector of the 1. In this case the agent/cognizer could map to either the initial 1 or the union 1. Micmac, where either the initial 1 or the final 1 in a passive can be taken as linking to WANT, could be such a case.

Data from Spanish *querer* discussed by Gonzalez (1985) may also exemplify this. She points out that, for some speakers of Chilean Spanish, (70) has two meanings.

(70)   Te   quiero   gustar.
          to you want-1sg like

a. 'I want you to like me.'
b. 'You want to like me.'
 /'You are starting to like me.'

According to Gonzalez, constructions with *gustar* involve inversion, that is, the initial 1 demotes to 3. Recast into the framework used here, (70) would be represented as (71).[27]

(71)

| querer | gustar | 'you' | 'I' |
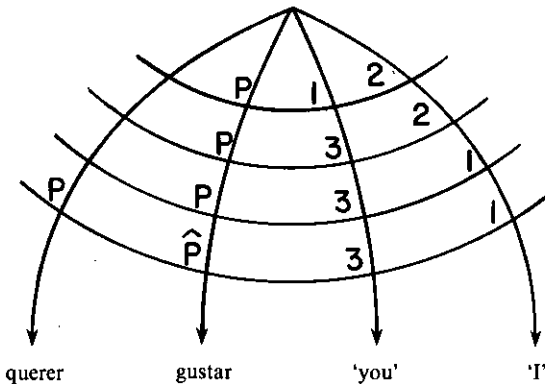
Under the claim that the agent/cognizer of *querer* could map to any P-initial 1, then either the initial 1 'you' or the union 1 'me' could be taken as the agent, as in the (b) and (a) readings respectively.

4.2. *Four types of inheritance structures*

The view of semantic-role mapping in inheritance structures presented above provides a simple account of differences within and across languages without resorting to an overall weakening of the principle of SR-to-GR mapping. Under this approach, four patterns of linking will be possible in inheritance structures, as summarized in (72); the agent will map to the initial 1, the union 1, both, or, in free desideratives, neither:[28]

(72)	Agent maps to:	Example
a.	no agent	Halkomelem, Chilean Spanish
b.	initial 1	Halkomelem (WANT and motion aux), Tzotzil (motion aux)
c.	union 1	Korean, (Eskimo)
d.	either	Micmac, Chilean Spanish

Linking to the union 1 rather than the initial 1, I believe, is the 'unmarked' case, both in the sense of being cross-linguistically more

prevalent and also in being more convenient to the theory. After all, in initial strata or with other kinds of union Ps, such as causatives, it is always the 1 of the same stratum which is interpreted as agent. Under this view, it is no surprise that WANT in the Spanish example in (70) above is shifting to a future meaning under the (b) reading; the (b) reading is a case of linking to initial 1, which can be regarded as the less-preferred reading. Therefore, it is natural for the form to be interpreted as being agentless; hence a free desiderative arises. This point of view leads me to expect that if a language uses a different form for initial 1 and union 1 linking, it is the former, not the latter, which will be a source for future in the language.

One of several formal devices could be used to instantiate the language-specific information regarding linking in the grammar. One obvious approach is to stipulate the SR-to-GR mapping as part of the lexical entry of WANT, motion auxiliaries, etc.[29] Whatever mechanism is used, by placing the responsibility of the semantic interpretation of inheritance structures outside of the syntactic representation, I allow for a maximally simple syntax. In fact, free and linked desideratives will have identical syntactic structures.

5. Conclusion

Taking the refined view of inheritance structures into account, I posit a revised typology for desideratives in Figure 2. Several types of concepts
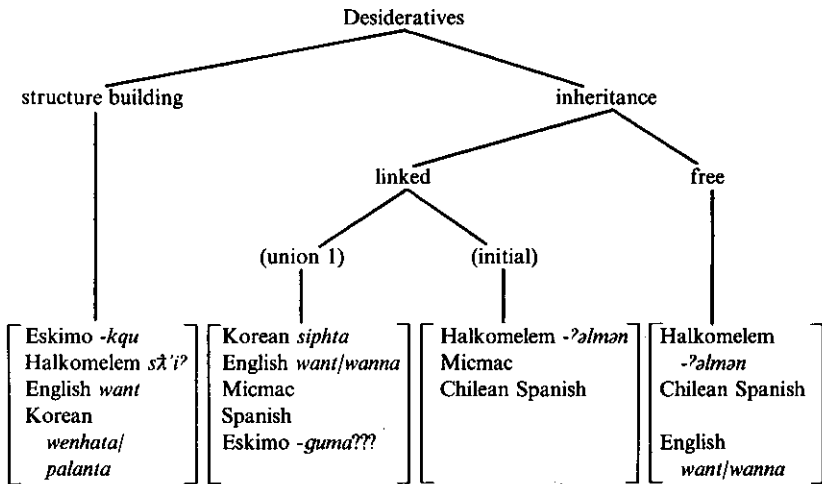

Figure 2. *A relational typology of desideratives*

are represented in Figure 2; each is taken to be a property assigned to the various WANTs within a language and cross-linguistically. Structure building vs. inheritance stipulates whether or not WANT increases the valence of the construction to which it is added. Linked vs. free is stipulated as part of the semantic information associated with WANT. Furthermore, linked WANT requires a semantic statement stipulating precisely the notion of P-initial 1 that the agent/cognizer links to.

It is this last property of desideratives that is straightforwardly accommodated under a relational treatment. A divorce of semantic linking to a predetermined syntactic level in the case of union predicates makes the parameterization of semantic linking possible. By including this information elsewhere in the grammar (for example, the lexicon), the syntactic analyses will be maximally simple: free and linked desideratives will have identical syntactic structures.

Notes

1.   These Eskimo data, taken from Grimshaw and Mester (1985), are ultimately from L. Smith; see Grimshaw and Mester for references and information concerning glosses.
2.   The Halkomelem data herein are from the late Arnold Guerin of the Musqueam Reserve, Vancouver, British Columbia. My work on Halkomelem has been supported by the Melville and Elizabeth Jacobs Fund, the Phillips Fund, and the National Museum of Man, Ottawa.

The following abbreviations are used in the glosses of the Halkomelem data:

aux	auxiliary
cmp	complementizer
cs	causative
det	determiner
erg	ergative
inter	interrogative
intr	intransitive
nom	nominalizer
pos	possessive
obj	objective
obl	oblique marker
sub	subjective
ssub	subordinate clause subjective
tr	transitive

1	first person
2	second person
3	third person

See Gerdts (1981) for a general description of Halkomelem. Halkomelem is a verb-initial language (predominantly VSO). Subjects, objects, and common noun possessors are unmarked for case. Other nominals — obliques, *chomeurs*, possessors — are flagged by the all-purpose preposition *ʔə*. Pronominal subject agreement is presented by clitics which appear in 2nd position in main clauses. Pronominal object agreement is suffixed to the verb. Halkomelem is a 'pro-drop' language: independent pronouns are used only for emphasis. Halkomelem is a split-ergative language; ergative agreement is marked only for 3rd person ergatives in main clauses (in all tense/aspects).

3. I thank Sung-Yun Bak, Soon Ae Chun, and Cheong Youn for providing the Korean data.
4. It is not clear what the analysis of Korean sentences like the following should be:

(i)   Na-nin ka-ki-lil   pala-n-ta.
      I-TOP go-cmp-ACC want-pr-ind
      'I want to go.'

Either *palanta* is not always structure building or sentences like (ii) underly (i):

(ii) Na-nin caki-ki-lil   ka-ki-lil   pala-n-ta.
      I-TOP self-cmp-ACC go-cmp-ACC want-pr-ind
      'I want myself to go.'

I prefer the latter treatment, given the overall tendency toward ellipsis in Korean.
5. This is quite a common process cross-linguistically, as Bybee and Pagliuca (1987) note. In fact, they claim that this is a major source of new future morphology, even more prevalent than the reanalysis of 'go' to future. See Bybee and Pagliuca (1987) and references therein for examples.
6. The use of 'want to' here has not quite neutralized to a future meaning yet. There seems to be some personification involved. Such examples sound much better in the negative. Note that English *will* has already made the shift from desiderative to future.
7. A formal account under the unaccusative hypothesis is given of this contrast in section 4.1.2 below.
8. I take sentences like (i) to be inheritance structures, not control structures; that is, *want* is like an auxiliary in these cases:

(i)   I want to go.

This could explain why sentences like (ii) seem odd:

(ii) ?I want myself to go.

Thus the positions I take in English and Korean (see note 4) vary.

Under this analysis, there is a difference between structure-building and inheritance WANT in English: the latter can contract to *wanna* but the former cannot, even if, as has often been noted, there is no overt lexical material between the *want* and *to* in the former case; for example, (iii):

(iii) *Who do you wanna go?

9. I believe periphrastic desideratives to be uniformly structure building; notes 4 and 8 demonstrate how languages where this is not apparently so could be reconciled to this generalization. Therefore, periphrastic desideratives will never exhibit the range of

semantic variation discussed in section 4, the analysis of which is the main purpose of this paper.

10. I give here only informal definitions for some necessary terms; Davies and Rosen (forthcoming) propose, define, and discuss this terminology in detail.

11. See Gibson and Raposo (1986) and Davies and Rosen (forthcoming) for a history of the development of this formulation.

Davies and Rosen (forthcoming) show that (29b) is unnecessary in a multipredicate union analysis, since inheritance across P sectors parallels inheritance within a P sector; the latter has always been assumed in relational grammar.

12. The major criticism leveled by Jensen and Johns (i.p.) against Smith's (1982a, 1982b) analysis of Eskimo causatives and desideratives is that it posits an initially biclausal structure. This criticism does not pertain to the present analysis, which is initially monoclausal.

13. If we leave aside differences in the exact statement of the theory-equivalent of the union rule (such as [29a]), this is the viewpoint taken in Smith (1982a, 1982b), Grimshaw and Mester (1985), and Jensen and Johns (i.p.).

14. Jensen and Johns (i.p.) argue that the analyses of *-guma* in both Smith (1982a, 1982b) and Grimshaw and Mester (1985) are unnecessarily complicated since they involve the theory-equivalent of 'Equi', that is, there are two identical arguments; the second is deleted. Since an inheritance viewpoint is taken here, only a single argument is posited, and thus the relational analysis is not subject to the same criticism.

15. Neither Grimshaw and Mester (1985) nor Jensen and Johns (i.p.) attempts to differentiate these two types of constructions; the former analysis is equivalent to a linked desiderative, the latter to a free desiderative. In the examples they present, it seems that there is an agent/cognizer of WANT, and therefore *-guma* would be a linked WANT from my perspective. They present no information concerning a future-tense use of *guma*, so I will tentatively assume that *-guma* is not a free WANT.

16. Analysis (33) is equivalent to Equi clause-union construction under a biclausal analysis; (34) would be raising and clause union. Aissen and Perlmutter (1983) posit both for Spanish.

17. See Gerdts (1981, forthcoming b) for evidence for passive in Halkomelem.

18. The satellite principle has been replicated with minor differences in other theories; see Baker (1985) and Grimshaw (1986). Therefore I assume that the argument presented here will be valid across frameworks.

19. It is clear that *-ʔalman* is a suffix, even though it appears after all suffixes except ergative agreement (as in [9]), because of the form it takes in the continuative aspect. One marker of this aspect is the glottalization of syllable-final resonants to the end of the word containing the verb root. As seen in (9), this rule applies to the desiderative (compare the completive form in [i]), hence it is suffixal.

(i)   ni   kʷən-ət-ʔalmən -əs   tᶿə swəyʔqeʔ tᶿə šəptən
      aux take- tr-want   -3erg det man   det knife
      'The man wanted to take the knife.'

20. These data are not only problematic to a relational analysis; I detail the problems for other frameworks in a longer version of this paper (in preparation).

21. This principle is discussed in Perlmutter (1978) and Rosen (1984).

22. The Halkomelem causative in (52), where the 2 is limited to a higher animate, is an example of the latter.

23. See Gerdts (1981, forthcoming a) for evidence for unaccusativity in Halkomelem.

24. An analysis involving union in the earlier P sector, then unaccusative advancement

could also be posited here; I know of no Halkomelem evidence that would decide between these alternatives.

25. If this analysis is to carry over without complication to motion auxiliaries in Tzotzil and Halkomelem, then they should not occur with unaccusative predicates. I have no information on this with respect to Tzotzil. This generalization appears to be true from the data I have on Halkomelem, but I have not systematically tested intransitive verbs in this regard.

26. Gerdts et al. (1984) argue that passive morphology occurs on some unaccusatives in Korean, such as *nemecita* 'fall' in (69).

27. The analysis given by Gonzalez (1985) makes use of the fact that inversion has no verbal morphology associated with it. Translating her analysis into the current framework, she posits an analysis for the (a) reading with inversion in the first P sector but for the (b) reading in the second P sector; thus the final 1 inherits in (a) but the initial 1 inherits in (b). I do not bring into the discussion here evidence which involves 3rd person experiencers given by Gonzalez to support an impersonal-inversion analysis under the second reading.

28. The parameterization of notions of P-initial 1 is obviously parallel to the different views of 1 available in relational grammar; for example, see Perlmutter (1982).

29. Davies and Dubinsky's (n.d.) 'extended valence' theory of the lexicon within relational grammar develops a notation for expressing this information and gives principles for allowable cross-linguistic structures.

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