5 Revaluation and Inheritance in Korean Causative Union

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1 Case Patterns in Korean Causatives

In Korean[1] Causatives formed with the verb *ha-ta* 'do',[2] the 'causee' can appear in three different cases—NOM(inative), ACC(usative), or DAT(ive), as illustrated in (1)–(2).[3]

(1) Sensaengnim-i haksaeng-i/-ɨl/-eykey ttena-key ha-yet-ta.
    teacher-NOM student-NOM/-ACC/-DAT leave-CMP do-PST-IND
    'The teacher made the student leave.'

(2) Kyengkwan-i Yangsu-ka/-lɨl/-eykey pelkim-il mul-key ha-yet-ta.
    policeman-NOM Y.-NOM/-ACC/-DAT fine-ACC pay-CMP do-PST-IND
    'The policeman made Yangsu pay the fine.'

This paper provides analyses for Causatives like (1) and (2), which account for two patterns of case marking.[4] Specifically, I claim that Causatives formed with *ha-ta* involve Causative Clause Union (CCU) as originally formulated in Relational Grammar by Perlmutter and Postal (1974); that is, at the initial level of syntactic structure, such Causatives are biclausal, as represented in (3)–(4). But at a later level of structure, there is Clause Union: each element in the downstairs clause is assigned a noninitial relation in the upstairs clause.[5]

(3) sensaengnim [haksaeng ttena] ha
    teacher   student   leave   do

(4) kyengkwan [Yangsu pelkim mul] ha
    policeman   Y.   fine   pay do

To motivate a Clause Union account, two aspects of the overall structure should be considered: initial biclausality and final monoclausality. The biclausal properties of Korean Causatives formed with *ha-ta* are well documented (see Shibatani 1973, Gerdts 1986). In fact, previous analysis of *ha-ta* Causatives have asserted final biclausal structures for Causatives like (1) and (2) above (see Patterson (1974) and references therein). Since this paper seeks primarily to establish the feasibility of a Union Analysis, I leave a detailed criticism of various No Union proposals to future works (Gerdts and Youn (in preparation)). However, two phenomena which have not previously been noticed—Predicate Fusion (§§2.1 and 3.2.1) and a condition on Plain Topics (§§2.2 and 3.2.2)—lend support to a Union Analysis over a No Union Analysis.

In Causative Clause Union, the first stratum in the upstairs clause where the downstairs elements bear grammatical relations is referred to as the *union stratum*. Perlmutter and Postal (1974) make claims regarding the grammatical relations borne in the union stratum by the downstairs elements, given in part in (5):

(5) a. The P(redicate) of the complement clause bears the U(nion) relation in the union stratum.
　　b. The final 1 of the complement is revalued as follows:
　　　　i. The final 1 of an intransitive stratum is revalued as a 2 in the union stratum.
　　　　ii. The final 1 of a transitive stratum is revalued as 3 in the union stratum.

Gibson and Raposo (1986) have posited that other downstairs nominals are assigned union relations according to the *Inheritance Principle*, which is summarized in (6):

(6) . . . a nominal heading a final GR_x-arc in the downstairs clause heads a GR_x-arc or a Cho-arc in the union stratum . . .

This means that downstairs nominals (other than the final 1; see (5)) simply inherit their relations in the union stratum, or they are placed en chômage; the latter possibility is discussed in §2.2.

Applying (5) to (3) and (4), we find that in the case of a downstairs intransitive clause, as in (3), the downstairs subject is a union 2, hence ACC, and in the case of a downstairs transitive clause, as in (4), the downstairs subject is a union 3, hence DAT. Section 2 argues that when the expected cases occur (ACC in (1) and DAT in (2)) in Korean Causatives, they do so as a result of CCU in accordance with (5). Other case marking provides a challenge to the putatively universal (5).

Section 3 gives an account of Causatives in which the 'causee' is marked NOM; this posits that they are a systematic violation of (5). I argue that such Causatives are instances of Clause Union without Revaluation as proposed for Italian in Rosen (1983); the downstairs 1, instead of being reassigned a relation as prescribed by (5), is not revalued at all. This results in the application of the Inheritance Principle (which operates under the restrictions of the Stratal Uniqueness Law; see Perlmutter and Postal 1983a), which stipulates that in cases like (1)–(2), the downstairs 1 is placed en chômage; such a 1-chômeur in Korean would be independently predicted to be in the NOM case. In motivating this analysis for Korean, I give support for the inclusion of CCU without Revaluation in Universal Grammar. Furthermore, the Korean evidence supports a theory, such as Relational Grammar, which can capture the difference between a class of Causatives which follow (5) and a class of those which do not.

Section 4 provides an account of Causatives which involve both CCU and Passive, as illustrated in (7)–(8).[6]

(7) %Haksaeng-i   sensaengnim-eyiyhaese ttena-key ha-yeci-et-ta.
　　student-NOM   teacher-by   leave-CMP do-PAS-PST-IND
　　'The student was made by the teacher to leave.'

(8) %Atil-i   emeni-eyiyhaese os-il   ip-key   ha-yeci-et-ta.
　　son-NOM   mother-by   clothes-ACC put on-CMP   do-PAS-PST-IND
　　'The son was made by his mother to put on clothes.'

After arguing that such Causatives are troublesome to an analysis positing CCU governed by (5), I demonstrate that, given the Inheritance Principle, an analysis involving CCU without Revaluation accounts for the relevant properties of such Causatives. Therefore, the Korean data provide evidence not only for CCU without Revaluation but also for the Inheritance Principle which correctly predicts the grammatical relations in Causatives like (7) and (8).

2　Causative Clause Union—Type I

Principle (5) was originally claimed to characterize all cases of CCU; but recently other types of CCU have been argued for, as discussed in §3. Since (5) was the type of CCU proposed first, it will be referred to as Causative Clause Union—Type I (CCU-I). This section argues that Korean Causatives in which the causee is marked ACC or DAT, as in (9a) and (10a), involve CCU-I, as represented in (9b) and (10b).
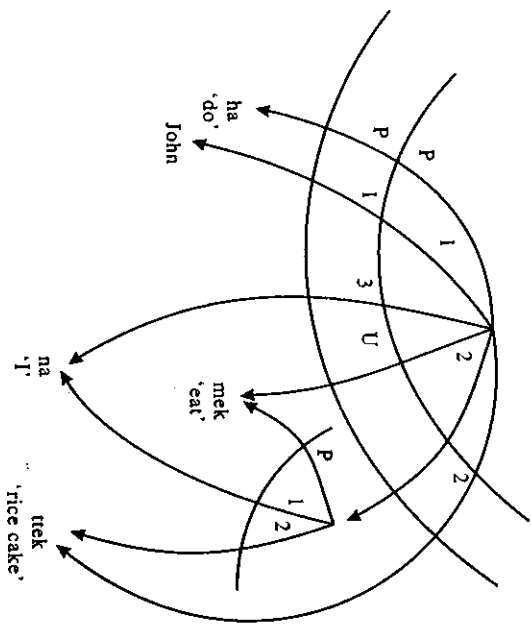
(9) a. Sensaengnim-i na-lil tolaka-key ha-yet-ta.
　　　teacher-NOM   1-ACC   return-CMP do-PST-IND
　　　'Teacher made me return.'

b.
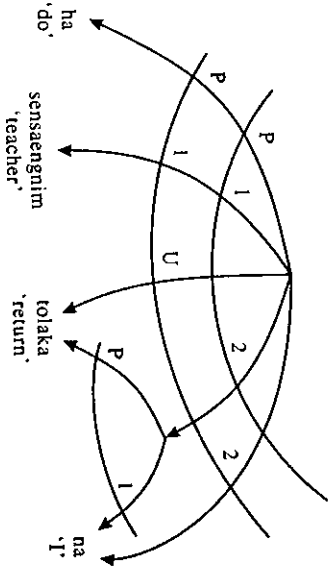
(10) a. John-i na-eykey ttek-il mek-key ha-yet-ta.
J.-NOM I-DAT rice-cake-ACC eat-CMP do-PST-IND
'John made me eat the rice cake.'

b.

[relational network diagram with labels: P, 1, U, 2, 2 — ha 'do', sensaengnim 'teacher', tolaka 'return', na 'I'; and P, 1, U, 3, 2, 2, P, 1, 2 — ha 'do', John, mek 'eat', na 'I', tek 'rice cake']

In an analysis involving CCU-I for the above Causatives, the final 1 of the downstairs clause, referred to here as the *pivot nominal*, bears a different relation in the union stratum, depending on the final transitivity of the downstairs clause.[7] In (9), the downstairs clause is finally intransitive and the pivot nominal is a union 2 according to (5bi), hence ACC. In (10), the downstairs clause is finally transitive, and the pivot nominal is union 3 according to (5bii), hence DAT. Furthermore, the downstairs final 2 in (10), which inherits its relation according to (6), is a union 2, hence ACC.[8]

To argue for the Union analysis, I contrast it with a nonunion alternative. Under a No Union analysis, it is posited that at the final level, the Causatives

above are biclausal; that is, their initial and final structure could be represented as in (11) and (12).[9]

(11) [sensaengnim [na tolaka] ha]
teacher   I   return do

(12) [John [na ttek met] ha]
J.   I rice-cake eat do

An apparent problem for the No Union analysis would be the Case of the pivot nominals; since the last relation the pivot nominal bears is 1, we expect NOM case, not ACC or DAT. For the sake of argument, let us put this question aside, assuming that some Case rule, however complicated, could assign ACC or DAT to the final 1 of the downstairs clause in Causatives. Instead, I turn to other types of evidence against the No Union analysis. First, an argument is given based on predicate fusion. Second, I give evidence based on 3-2 advancement and Plain Topics that the downstairs 2 bears a relation in the upstairs clause as predicted under the Union analysis.

2.1   Predicate Fusion

Gerdts (1986) describes the basic word order pattern for Korean as in (13):

(13) 1 3 2 2-chômeur P
(Obliques and 1-chômeurs can occur in many positions.)

However, other word orders are possible, as (14) and (15) show.

(14) Ttek-il   nae-ka mek-et-ta.
rice-cake-ACC I-NOM eat-PST-IND
'I ate the rice cake.'

(15) Sensaengnim-kkey chaek-il nae-ka tili-et-ta.
teacher-HON+DAT   book-ACC I-NOM   give-PST-IND
'I gave the book to the teacher.'

The final 1 in examples (14–15) appears in a position between the final 2 and the Predicate. This word order is also possible in examples where the final 2 is a complement clause, as in (16).
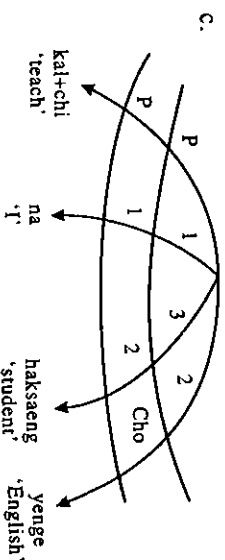
(16) a. John-i [Yengmi-ka aphi-ta-ko] mit-et-ta.
J.-NOM Y.-NOM sick-IND-CMP believe-PST-IND
'John believed that Yengmi was sick.'
b. [Yengmi-ka aphi-ta-ko] John-i mit-et-ta.
Y.-NOM   sick-IND-CMP J.-NOM believe-PST-IND
'John believed that Yengmi was sick.'

Not only is the word order in (b) acceptable, but some speakers prefer it over

thê order in (a). In contrast, apparently many Korean speakers do not allow such a word order in Causatives formed with *ha* 'do' in examples like (17) and (18).[10]

(17) %Sensaengnim-il ttena-key haksaeng-i ha-yet-ta.
teacher-ACC leave-CMP student-NOM do-PST-IND
'The student made the teacher leave.'

(18) %John-eykey ttek-il mek-key nae-ka ha-yet-ta.
J.-DAT rice-cake-ACC eat-CMP I-NOM do-PST-IND
'I made John eat the rice cake.'

Data involving adverbials show a similar contrast. Adverbials usually appear in many positions in the sentence, e.g., in (19).

(19) a. Haksaeng-i {onil / ecey / uyenhi} sensaengnim-il ttena-key ha-yet-ta.
student-NOM {today / yesterday / accidentally} teacher-ACC leave-CMP do-PST-IND
'The student made the teacher leave {today / yesterday / accidentally}.'

b. Haksaeng-i sensaengnim-il {onil / ecey / uyenhi} ttena-key ha-yet-ta.
teacher-ACC {today / yesterday / accidentally} leave-CMP do-PST-IND

c. %Haksaeng-i sensaengnim-il ttena-key {onil / ecey / uyenhi} ha-yet-ta.

(20) Nae-ka John-eykey ka-lako imi malha-yet-ta.[11]
I-NOM J.-DAT go-CMP already speech+do-PST-IND
'I already told John to go.'

However, the adverbial cannot intervene between the upstairs and downstairs verbs, as in (19c), for almost half of the Korean speakers checked for this; but the placement of an adverbial between an embedded clause and matrix verb, as in (20), seems to be universally accepted by Korean speakers.

The following discussion accounts within the Union analysis for the differences in judgments concerning (17), (18), and (19c) and also accounts for the uniformity of judgments for (16) and (20).

A rich literature on diverse languages (see, e.g., Comrie (1976), Aissen and Perlmutter (1983), Rizzi (1978)) has noted that Clause Union construc-

tions differ with respect to the degree of morphological fusion of the upstairs and downstairs P(redicate)s. For example, in many languages, the causative P is morphologically realized as an affix, while the downstairs P serves as the verbal base, as in the Japanese causative in (21).

(21) Ziroo wa Hanako ni hon o yom-ase-ru.
TOP DAT book ACC read-cause-end
'Ziroo will make Hanako read a book.'

In contrast, in some languages the causative P and the downstairs P are separate words in the surface form, e.g., in the Quechua causative (Cole 1984) in (22):

(22) qalla-rqo-o kechwa-ta-m yachatsi-r
begin-recent-PST-1 Quechua-ACC-validator teach-INFINITIVE
'I began to teach Quechua.'

Returning to Korean, my claim is that for all speakers, (17), (18), and (19c) involve Clause Union and have the same basic structures. However, for some speakers, the causative P *ha-* is morphologically realized as a verbal suffix. Since the two predicates form a single word, lexical material, including scrambled subjects and adverbials, cannot intervene between them. For other Korean speakers, these Causatives involve Union, but the two predicates are separate words, and there is no ban on intervening lexical material. In other words, Korean Causatives parallel Japanese Causatives for some speakers but Quechua Causatives for others.

Data from the former class of speakers provide evidence for a Union analysis. Perlmutter (1985) argues for the morphological condition given in (23):

(23) If two elements are wordmates in morphological structure, then the elements that determine them are clausemates in the syntactic structure.

Given this morphological condition, the two Ps in a Causative, since they determine wordmate elements in the morphology, must be clausemates in the syntax; this follows from a Union analysis.[12]

In contrast, these Korean data are problematic to a No Union Analysis. Since (16) and (20) have structures essentially identical to (17), (18), and (19c), there is no apparent reason why the former, but not the latter, should allow intervening lexical material. Thus, the Union analysis is chosen over the No Union analysis.

2.2   Plain Topics

The above discussion has focused on the properties of the predicates in Causatives. Evidence for Causative Clause Union also derives from the nominals involved. The Union analysis posits that a Causative like (10a) contains a union stratum in which the downstairs final 1 and 2 are 3 and 2, respectively,

(see (10b)). One property of Korean 3s is that they can advance to 2 in a 3-2 advancement construction; Gerdts (1986, 1987) argues for this analysis for sentences like (24b), as represented in (24c).

(24) a. Nae-ka haksaeng-til-eykey yenge-lil kalchi-et-ta.
 I-NOM student-PL-DAT English-ACC teach-PST-IND
 'I taught English to the students.'

 b. Nae-ka haksaeng-til-il yenge-lil kalchi-et-ta.
 I-NOM student-PL-ACC English-ACC teach-PST-IND
 'I taught the students English.'

 c.

[Diagram with nodes: P, 1, 3, 2, Cho — kalchi 'teach', na 'I', haksaeng 'student', yenge 'English']

The initial 3 is a final 2, hence ACC; the initial 2 is a final 2-chômeur; in Korean, 2-chômeurs appear in the ACC case (Gerdts 1986). Causatives like (10) also have counterparts involving 3-2 advancement, for example (25a) as represented in (25b).

(25) a. John-i na-lil tek-il mek-key ha-yet-ta.
 J.-NOM I-ACC rice-cake-ACC eat-CMP do-PST-IND
 'John made me eat the rice-cake.'

 b.

[Diagram with nodes: P, 1, 2, U, Cho — ha 'do', John, mek 'eat', na 'I', ttek 'rice cake']
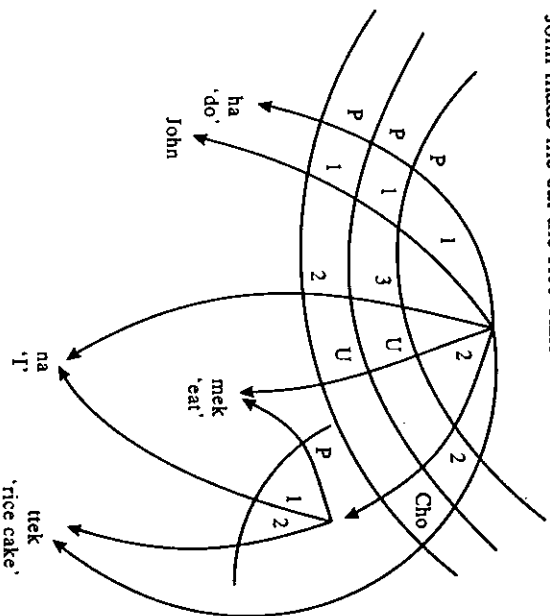
That upstairs 3-2 advancement is possible provides support for the Union analysis, since under this analysis the downstairs final 1 bears the 3 relation in the union stratum. However, an account of (25a) is also possible under the No Union analysis; basically, a case rule could be given which would allow the final 1 in an embedded clause of a Causative to be marked either DAT or ACC. That is, both (10a) and (25a) would have the structure represented in (26).

(26)

[Diagram with nodes: P, 1, 2 — ha 'do', John, mek 'eat', na 'I', ttek 'rice cake']
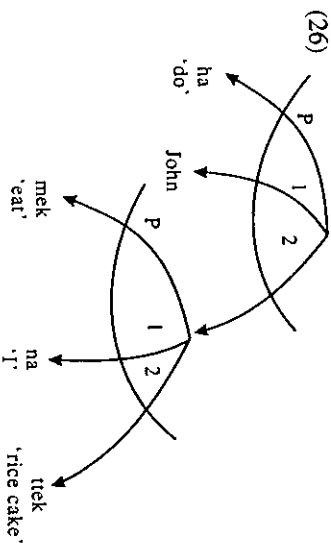
These two analyses differ in the grammatical relations assigned not only to the downstairs final 1 but also to the downstairs final 2: under the No Union analysis, the downstairs final 2 in (10a) and (25a) is a final 2; under the Union analysis, the downstairs final 2 is an upstairs final 2 in (10a), but it is a 2-chômeur in (25a). As discussed in Gerdts (1986), one difference between final 2s and 2-chômeurs in Korean is that only the former can appear as Plain Topics, because of constraint (27):

(27) A nominal heading a cho-arc cannot be a Plain Topic.

Thus in a 3-2 advancement clause such as (28), aki 'baby', the final 2, can serve as a Plain Topic (hereafter PT), but mul 'water', the final 2-chômeur, cannot, as (29) illustrates.

(28) Emeni-ka aki-lil mul-il cu-et-ta.
 mother-NOM baby-ACC water-ACC give-PST-IND
 'Mother gave the baby water.'

(29) a. Aki-nin emeni-ka mul-il cu-et-ta.
 baby-TOP mother-NOM water-ACC give-PST-IND
 'Mother gave the baby water.'

 b. *Mul-in emeni-ka aki-lil cu-et-ta.[13]
 water-TOP mother-NOM baby-ACC give-PST-IND
 'Mother gave the baby water.'

In contrast, in a clause such as (30), which does not involve 3-2 advancement, either the final 2 or the final 3 can serve as a Plain Topic, as seen in (31a) and (31b).

(30) Emeni-ka   aki-eykey mul-il   cu-et-ta.
mother-NOM baby-DAT water-ACC give-PST-IND
'Mother gave water to the baby.'

(31) a. Mul-in   emeni-ka   aki-eykey cu-et-ta.
water-TOP mother-NOM baby-DAT give-PST-IND
'Mother gave water to the baby.'
b. Aki-eykey-nin emeni-ka   mul-il   cu-et-ta.[14]
baby-DAT-TOP mother-NOM water-ACC give-PST-IND
'Mother gave water to the baby.'

The Union analysis, together with constraint (27), predicts that ttek 'rice-cake' can be a PT in Causatives like (10) but cannot be a PT in Causatives like (25). In contrast, without further restrictions the No Union analysis would allow ttek to be a PT in either type of Causative. As seen in (32)–(35), the Union analysis makes the correct prediction.

(32) Ttek-in   John-i na-eykey mek-key ha-yet-ta.
rice-cake-TOP J.-NOM I-DAT   eat-CMP do-PST-IND
'John made me eat rice cake.'

(33) *Ttek-in   John-i na-lil mek-key ha-yet-ta.
rice-cake-TOP J.-NOM I-ACC eat-CMP do-PST-IND
('John made me eat rice-cake.')
(!'John made the rice-cake eat me.')

(34) Mary-nin John-i na-eykey po-key ha-yet-ta.
M.-TOP J.-NOM I-DAT   see-CMP do-PST-IND
'John made me see Mary.'

(35) Mary-nin John-i na-lil po-key ha-yet-ta.
M.-TOP J.-NOM I-ACC see-CMP do-PST-IND
'John made me see Mary.'
(also, irrelevantly, 'Mary made John see me.'
/*'John made me see Mary.'

That (32) corresponds to (10) follows from the DAT case marking of na 'I', and that (33) corresponds to (25) follows from the ACC case marking of na. In conclusion, the Union analysis, together with 3-2 Advancement, can accommodate the data involving PTs, but the No Union analysis would need to be complicated in an ad hoc way to handle these data. Clearly then, the preferred grammar of Korean should include Causative Clause Union.

3 **Causative Clause Union—Without Revaluation**

Section 2 presented evidence for the existence of Korean Causatives which conform to (5) above: the final 1 of a downstairs intransitive stratum is a union

2, hence ACC; the final 1 of a downstairs transitive stratum is a union 3, hence DAT.

Although it was once thought not to universally characterize Causative Clause Union, (5) has been shown not to be valid cross-linguistically. Gibson (1980) has provided evidence that in Chamorro Causatives, for example, (36), the downstairs final 1 is always revalued as a union 2, despite the transitivity of the downstairs clause.

(36) Ha na'-taitai häm i   ma'estru ni esti na lebblu.
3s C-read 1pe the teacher OB this LK book
'The teacher made/let/had us read this book.'

In addition, Rosen (1983) argues that in Italian Causatives like (37), it is possible to have Clause Union which involves no revaluation of the downstairs final subject, as in (37).

(37) Faremo   accompagnare il   gruppo da un interprete.
we'll-make accompany   the group by an interpreter
'We will have an interpreter accompany the group.'

This research has led to a new view concerning Causative Clause Union; to put it briefly, CCU can be universally characterized by the concepts *Revaluation* and *Inheritance* summarized in (38):

(38) a. Revaluation: The downstairs final 1 is revalued as a 2 or 3.
No Revaluation: The downstairs final 1 is not revalued (as specified in the grammars of particular languages).
b. Inheritance: A nominal which is not revalued inherits its downstairs final relation in the union stratum.
No Inheritance: A nominal is placed en chômage (as stipulated by the Stratal Uniqueness Law).

To illustrate these concepts, I draw on the data from Korean, Chamorro, and Italian involving cases of Causative Clause Union of downstairs finally transitive clauses. In the Korean case, Causatives like (10) above involve the revaluation of the downstairs final 1 to union 3; in addition, the downstairs final 2 inherits its relation, as schematized in (39):

(39) Downstairs relation:

	1	3	2
	John	na	ttek
	'I'		'rice-cake'

Union relation:

1		2

In the Chamorro case (36), the downstairs final 1 is revalued as a union 2; therefore, the downstairs final 2 cannot inherit, as this would result in a viola-

tion of the Stratal Uniqueness Law—there would be two 2s in the union stratum, as exemplified in (40):

(40) *Downstairs relation:

Union relation:

```
      1   2   2
      1       2
```

ma'estru   ham   lebblu
'teacher' 'me' 'book'

Instead, as Gibson (1980) argues, inheritance is blocked, and the downstairs 2 is a 2-chômeur, appearing in the Oblique case as do other 2-chômeurs in Chamorro, as schematized in (41):

(41) Downstairs relation:

Union relation:

```
      1   2   2-cho
      1       2
```

ma'estru   ham   lebblu
'teacher' 'me' 'book'

In the Italian Causative (37), Rosen (1983) argues for Clause Union—Without Revaluation: the downstairs final 1 is not revalued, and if it were to inherit its relation, a violation of the Stratal Uniqueness Law would result, as (42) demonstrates.

(42) *Downstairs relation:

Union relation:

```
      1       2
      1   1   2
```

'we' interprete gruppo

Instead, in accordance with the Inheritance Principle, the downstairs final 1 is placed en chômage, as schematized in (43):

(43) Downstairs relation:

Union relation:

```
      1        2
      1  1-cho 2
```

'we' interprete gruppo

We see then that these three types of Causatives can be accommodated by the concepts Revaluation and Inheritance.

Returning to Korean, I now consider a second type of Causative—those with double Nominative case marking, for example, (44a) and (45a). I argue that, like the Italian case cited above, these involve Causative Clause Union—Without Revaluation (CCU-WR): the downstairs final 1 is not revalued, nor can it inherit, since there is an upstairs 1; therefore it is placed en chômage, as represented in the SDs in (44b) and (45b).

(44) a. Haksaeng-i sensaengnim-i ttena-key ha-yet-ta.
student-NOM teacher-NOM leave-CMP do-PST-IND
'The student made the teacher leave.'

b.

ha 'do'   haksaeng 'student'   ttena 'leave'   sensaengnim 'teacher'
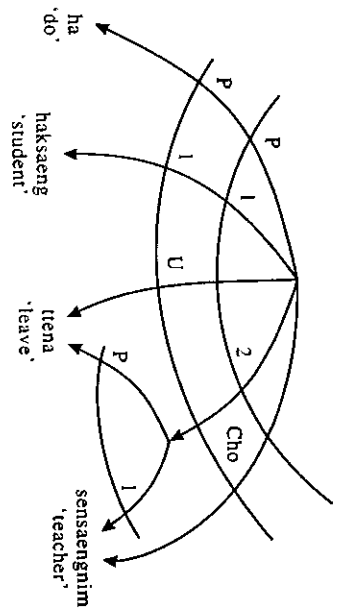
(45) a. Changsu-ka nae-ka ttek-il mek-key ha-yet-ta.
C.-NOM I-NOM rice-cake-ACC eat-CMP do-PST-IND
'Changsu made me eat the rice cake.'

b.

Changsu   ha 'do'   mek 'eat'   na 'I'   ttek 'rice cake'
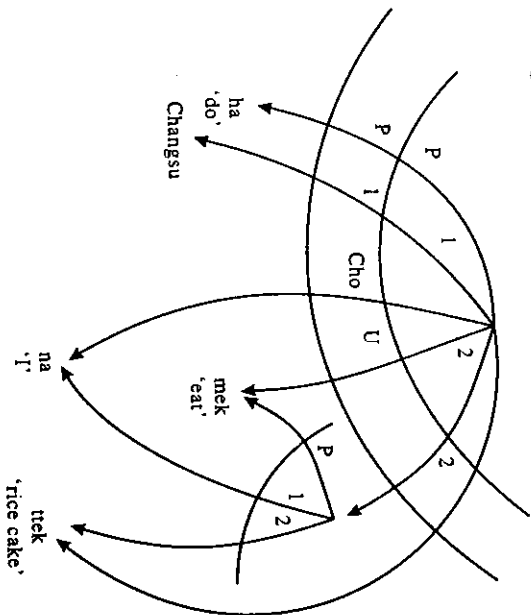
First an explanation should be given for the appearance of the 1-chômeur in NOM case. Gerdts (1986) points out that, unlike advancement 1-chômeurs, which are marked by various postpositions, all other 1-chômeurs are marked NOM. For example, the 1-chômeur in the Pos-Ascension construction (Chun 1986) in (46) appears in NOM case.

(46) a. Mary-ka elkul-i yeyppi-ta.
Mary-NOM face-NOM pretty-IND
'Mary's face is pretty.'

b.

P
Cho
P
H
POS

yeypp+ 'pretty'
elkul 'face'
Mary
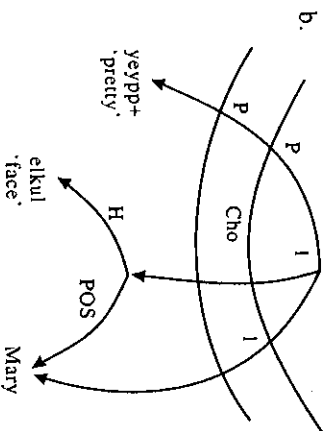
Therefore, it is predicted that a Union 1-chômeur should also appear in NOM case.

The following sections support this analysis: §3.1 provides evidence that the first Nominative nominal is a final 1 and the second Nominative nominal is not; §3.2 considers and rejects some alternatives to a CCU-WR analysis.

Evidence for CCU-WR

Evidence for CCU-WR comes from Subject Honorification, Control Structures, and Plain Topics. In each case, the argument takes the same form: although there are two NOM(inative) nominals in Causatives like (44) and (45), only one of these is the final 1 of the upstairs clause. The evidence presented below shows that it is the *first* NOM nominal—the upstairs initial 1—that is the final 1 in the union stratum. The second NOM nominal—the pivot nominal—is a 1-chômeur in the union stratum.

The first piece of evidence for CCU-WR comes from Subject Honorification (hereafter SH). As noted by Shibatani (1973, 1976) and Yang (1974) and discussed in Gerdts (1986), the final 1 controls SH on the predicate in the same clause. The condition on SH predicts that if the upstairs final 1s of the Causatives in (44) and (45) are honorable, then SH can appear on the upstairs predicate (i.e., HA 'do'). The examples in (47) and (48) show that SH occurs when the first NOM nominal is honorable, and (49) and (50) show that SH cannot occur when the second NOM nominal is honorable.

(47) Sensaengnim-i   haksaeng-i   ttena-key ha-si-et-ta.
teacher-NOM   student-NOM leave-CMP do-SH-PST-IND
'The teacher made the student leave.'

(48) Emeni-ka   nae-ka ttek-il   mek-key ha-si-et-ta.
mother-NOM I-NOM rice-cake-ACC eat-CMP do-SH-PST-IND
'Mother made me eat rice cake.'

(49) Haksaeng-i   sensaengnim-i ttena-key ha-(*si)-yet-ta.
student-NOM teacher-NOM   leave-CMP do-SH-PST-IND
'The student made the teacher leave.'

(50) Celmin kyengkwan-i   apeci-kkeyse/-ka   pelkim-il
young policeman-NOM father-HON+NOM/-NOM fine-ACC
mul-key ha-(*si)-yet-ta. [15]
pay-CMP do-SH-PST-IND
'The young policeman made father pay the fine.'

A CCU-WR analysis accounts for this contrast. Since the first NOM is the upstairs final 1 in (47–48), SH is possible; but since the second NOM is a 1-chômeur in the upstairs clause in (49) and (50), SH on the upstairs predicate is not possible.

Control structures in Korean provide a similar argument. There are constructions involving verbs like *puthakha-ta* 'ask', *kangyoha-ta* 'force', *helakha-ta* 'allow', and *tangpuha-ta* 'request', in which the upstairs 3 controls a PRO in an embedded clause; for example, (51) and (52).

(51) Nae-ka John-eykey [PRO ttena-tolok] puthakha-yet-ta.
I-NOM J.-DAT   leave-CMP   ask+do-PST-IND
'I asked John to leave.'

(52) Emeni-ka   atil-eykey [PRO ecey   kikcang-ey ka-tolok]
mother-NOM son-DAT   yesterday cinema-to   go-CMP
helakha-yet-ta.
allow+do-PST-IND
'The mother allowed her son to go to the cinema yesterday.'

When Causatives like (51) and (52) are embedded under a Control verb, the PRO corresponds to 'causer', as in (53) and (55), but not the 'causee,' [16] as in (54) and (56). [17]

(53) Nae-ka John-eykey [PRO Mary-ka ttena-key ha-tolok]
I-NOM J.-DAT   M.-NOM leave-CMP do-CMP
puthakha-yet-ta.
ask+do-PST-IND
'I asked John to make Mary leave.'

(54) *Nae-ka John-eykey [Mary-ka PRO ttena-key ha-tolok]
I-NOM J.-DAT   M.-NOM   leave-CMP do-CMP
puthakha-yet-ta.
ask+do-PST-IND
('I asked John that Mary make him leave.')

(55) Iysa-ka   emeni-eykey [PRO atil-i   ki   yak-il
doctor-NOM mother-DAT   son-NOM the medicine-ACC
mek-key ha-lako] tangpuha-yet-ta.
eat-CMP do-CMP   request+do-PST-IND
'The doctor requested the mother to make the son take the medicine.'

(56) *Pysa-ka   emeni-eykey [atil-i PRO ki yak-il
     doctor-NOM mother-DAT son-NOM the medicine-ACC
     mek-key ha-lako] tangpuha-yet-ta.
     eat-CMP do-CMP request+do-PST-IND
     ('The doctor requested the mother that the son would make her take the
     medicine.')

This would follow under the CCU-WR analysis if it is claimed that PROs are
limited to final 1s; it is the causer that is posited to be a final 1—the pivot
nominal is a 1-chômeur in the upstairs final stratum and hence cannot be PRO.
A third argument for CCU-WR is based on the constraint on Plain Topics
given in (27) above: chômeurs cannot be PTs. This constraint predicts that if
the first NOM nominal is a final 1, then it should be able to appear as a PT; this
is the case, as (57) and (58) confirm.

(57) Sensaengnim-in haksaeng-i   ttena-key ha-yet-ta.
     teacher-TOP   student-NOM leave-CMP do-PST-IND
     a. *The teacher* made the student leave.'
     b. 'The student made *the teacher* leave.'

(58) Emeni-nin ai-ka   tek-il   mek-key ha-yet-ta.
     mother-TOP child-NOM rice-cake-ACC eat-CMP do-PST-IND
     a. *The mother* had the child eat rice cake.'
     b. ?'The child made *the mother* eat rice cake.' [18]

Thus, evidence from the (a) readings in (57–58) shows that it is the nominal
corresponding to the first NOM nominal which is the final 1 in Causatives like
(44) and (45).

At first glance, the (b) glosses seem to pose a difficulty for the CCU-WR
analysis, since the second nominal also seems to be able to be a PT. I claim,
however, that the corresponding nontopicalized sentence corresponding to
(57) under the (b) reading is not (59) but (60).

(59) Haksaeng-i sensaengnim-i ttena-key ha-yet-ta.
     student-NOM teacher-NOM   leave-CMP do-PST-IND
     'The student made the teacher leave.'

(60) Haksaeng-i sensaengnim-il ttena-key ha-yet-ta.
     student-NOM teacher-ACC   leave-CMP do-PST-IND
     'The student made the teacher leave.'

That is, in (60), which involves CCU-I, the pivot nominal is a final 2, and a
corresponding sentence ((57) under the (b) reading) in which the pivot nomi-
nal is PT is possible.

Data involving Quantifiers support this claim. As Gerdts (1987) shows,
stranded Quantifiers may appear with Case. In (61) and (62) below, the Quan-
tifier refers to the Topic nominal; note that the Quantifier is NOM in (61) and
ACC in (62).

(61) Haksaeng-til-in seys-i nae-ka ttena-key ha-yet-ta.
     student-PL-TOP 3-NOM 1-NOM leave-CMP do-PST-IND
     'Three students made me leave.'
     /?*'I made three students leave.'

(62) Haksaeng-til-in seys-il nae-ka ttena-key ha-yet-ta.
     student-PL-TOP 3-ACC 1-NOM leave-CMP do-PST-IND
     'I made three students leave.'
     /?*'Three students made me leave.'

When the Quantifier is NOM (see (61)) only one reading is possible; the Topic
corresponds only to the first NOM nominal in a Double NOM causative. Con-
versely, when the Quantifier is ACC as in (52), the Topic corresponds to the
ACC-marked nominal in a CCU-I Causative. Thus, it can be maintained that
(59) corresponds only to the (a) reading of (57).

The evidence from PTs shows that only the first NOM nominal in a Double
NOM causative is a final term, since it can be a PT; the pivot nominal is a
chômeur, since it cannot.

3.2   Counteranalyses

The evidence presented above shows that the first and not the second NOM
nominal is the upstairs final 1. This can be accounted for under the CCU-WR
analysis, which posits that the second NOM is a 1-chômeur. However, there are
no properties unique to 1-chômeurs that can be used to argue for the final rela-
tionship of the second NOM nominal. In light of this, it is important to consider
alternative analyses which could also account for the data presented so far.
This section considers several tempting alternatives to the CCU-WR analysis,
showing that for each the latter analysis is superior in some respect.

3.2.1   *The No Union Analysis*

An obvious counteranalysis and the one which has most often been suggested
in the literature on Korean (see Patterson (1974) and references therein) posits
that double NOM Causatives do not involve Union; that is, (63) and (64) are
finally biclausal, as represented by the associated brackets:

(63) Haksaeng-i [sensaengnim-i ttena-key] ha-yet-ta.
     student-NOM teacher-NOM   leave-CMP do-PST-IND
     'The student made the teacher leave.'

(64) John-i [nae-ka ttek-il   mek-key] ha-yet-ta.
J.-NOM I-NOM rice-cake-ACC eat-CMP do-PST-IND
'John made me eat the rice-cake.'

This analysis accounts for many of the properties of double NOM Causatives: first, the pivot nominal is NOM because the last relation it bears is a 1 (of the downstairs clause); second, it does not behave like an upstairs final 1 because it does not bear any relation to the upstairs clause.

However, this analysis misses the fact that double NOM Causatives are structurally parallel to Causatives involving other case patterns. In §2.2, the No Union analysis was discussed with respect to CCU-I Causatives. It was claimed that some Korean speakers treat the causative P(redicate) as a verb suffix and thus do not allow lexical material to intervene between the down-stairs and upstairs predicates since they form a single word; given Perlmutter's condition that wordmate elements must have determining elements which are clausemates, causatives must be union structures. Applying this test to double NOM Causatives, one sees again that for a significant number of speakers inter-vention is not possible; in fact, the same speakers who reject intervention in CCU-I Causatives also reject the following data.

(65) %Sensaengnim-i ttena-key haksaeng-i ha-si-et-ta.
teacher-NOM   leave-CMP student-NOM do-SH-PST-IND
'The student made the teacher leave.'

(66) %John-i ttek-il   mek-key nae-ka ha-yet-ta.
J.-NOM rice-cake-ACC eat-CMP I-NOM do-PST-IND
'I made John eat rice cake.'

(67) %Haksaeng-i sensaengnim-i ttena-key onil ha-yet-ta.
student-NOM teacher-NOM leave-CMP today do-PST-IND
'The student made the teacher leave today.'

(68) %Emeni-ka   nae-ka ttek-il   mek-key ecey   ha-yet-ta.
mother-NOM I-NOM rice-cake-ACC eat-CMP yesterday do-PST-IND
'Mother made me eat rice cake yesterday.'

While a CCU-WR analysis correctly predicts the ungrammaticality of the above sentences for some speakers, the No Union analysis requires some fur-ther device to accommodate these data and is thus inferior to the Union analysis.

2.2 CCU-I and Aberrant Case

A second alternative for double NOM Causatives would claim that they actu-ally involve CCU-I, as would those discussed in §2. Such an analysis would claim that the pivot nominal is a final 2 or 3 in the upstairs clause which is

aberrantly marked NOM. This would mean that the choice of NOM/DAT/ACC case depends on some semantic/pragmatic criterion. This view is particularly tempting, since Choi (1983) has shown that meaning in Korean Causatives systematically correlates with the Case of the pivot nominal. Choi claims that case is assigned according to a 'power' hierarchy: NOM>DAT>ACC. As repre-sented in the range of translation in (69–71), the higher the case on the hierar-chy, the more control the referent of the pivot has over the situation.

(69) Nae-ka sensaengnim-i ttena-key ha-yet-ta.
I-NOM teacher-NOM   leave-CMP do-PST-IND
'I let the teacher leave.'

(70) Nae-ka sensaengnim-eykey ttena-key ha-yet-ta.
I-NOM teacher-DAT   leave-CMP do-PST-IND
'I had the teacher leave.'

(71) Nae-ka sensaengnim-il ttena-key ha-yet-ta.
I-NOM teacher-ACC   leave-CMP do-PST-IND
'I made the teacher leave.'

While such a semantic characterization of Korean Causatives is compatible with an analysis which posits CCU-I and aberrant case for all Causatives, it is also compatible with an analysis which posits more than one type of Causative Clause Union. While a semantic account renders plausible an analysis posit-ing CCU-I and aberrant case, it in no way provides compelling evidence for this analysis.

Further, there is an argument against such an analysis. Specifically, the two analyses—CCU-I and aberrant case for all Causatives vs. CCU-I for some Causatives and CCU-WR for others—make different predictions with respect to the downstairs final 3. According to the Inheritance Principle (see (6)), any nominal that is not revalued will inherit its relation in the union stratum unless prohibited from doing so by the Stratal Uniqueness Law. In other words, in Causatives involving CCU-I where the pivot nominal is revalued as a Union 3, the downstairs final 3 will be unable to inherit, its relation having been pre-empted by the pivot nominal, and will be placed en chômage. I claim that this is what happens in Causatives like (72)–(73), as represented in (74):

(72) Sensaengnim-i na-eykey haksaeng-eykey chaek-il cu-key
teacher-NOM I-DAT   student-DAT   book-ACC give-CMP
ha-yet-ta.
do-PST-IND
'The teacher had me give the book to the student.'

(73) Mary-ka na-eykey John-eykey kil-il   mut-key ha-yet-ta.
M.-NOM I-DAT   J.-DAT   way-ACC ask-CMP do-PST-IND
'Mary had me ask John the way.'

(74)

P P 1 U 2 Cho 3 2 3
ha 'do'   Mary   mut 'ask'   John   kil 'way'   na 'I'
P 1 2 3
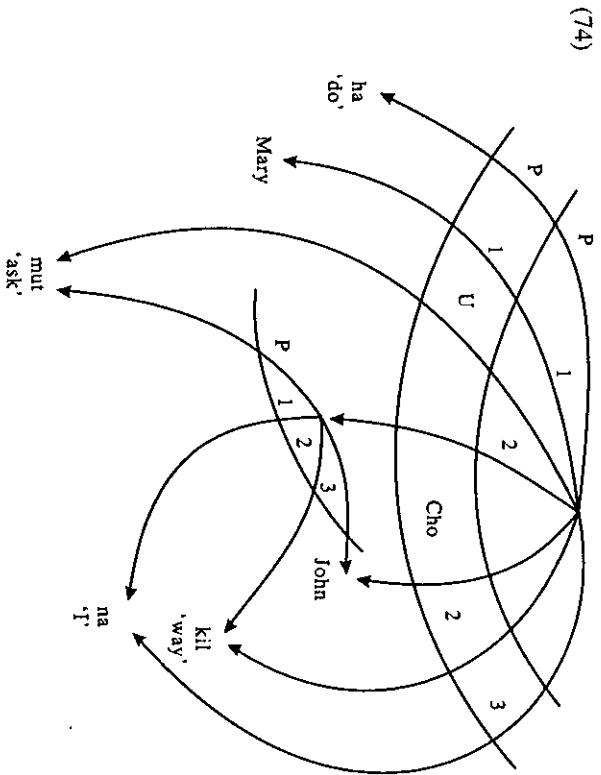
Although there are two DAT nominals in (72)–(73), the analysis represented in (74) posits that only the first DAT, the pivot nominal, is a final 3; the second, corresponding to the downstairs 3, is a 3-chômeur. The appearance of a DAT-marked 3-chômeur is entirely expected, given that 2-chômeurs, like 2s, are marked ACC, and some 1-chômeur, like 1s, are NOM. Data involving PTs provide evidence for this analysis. As already shown, chômeurs cannot serve as PTs. This condition predicts that the first—and not the second—DAT nominal can serve as a PT. This is true, as (75) and (76) illustrate.

(75) Na-eykey-nin Mary-ka John-eykey kil-il   mut-key ha-yet-ta.
      I-DAT-TOP   M.-NOM J.-DAT   way-ACC ask-CMP do-PST-IND
      'Mary had me ask John the way.'
    *('Mary had John ask me the way.')

(76) John-eykey-nin Mary-ka na-eykey kil-il   mut-key ha-yet-ta.
      J.-DAT-TOP   M.-NOM I-DAT   way-ACC ask-CMP do-PST-IND
    *('Mary had me ask John the way.')
      'Mary had John ask me the way.'

In (75)–(76), a DAT nominal serves as PT, as evidenced by the co-occurrence of DAT and TOP marking. Moreover, note that the nominal serving as PT can only be the pivot nominal, as the good readings demonstrate, and cannot be the downstairs final 3, as the impossible readings show. Thus, an analysis involving CCU-I where the pivot nominal is a union 3, together with the inheri-

tance Principle, which posits that the downstairs final 3 is a union 3-chômeur, makes the correct predictions with respect to data involving PTs.

The two analyses—CCU-I:Aberrant Case and CCU-WR—together with the Inheritance Principle, make different predictions concerning the downstairs final 3 in double NOM Causatives like (77) and (78).

(77) Sensaengnim-i nae-ka haksaeng-eykey chaek-il
     teacher-NOM I-NOM student-DAT   book-ACC
     cu-key   ha-yet-ta.
     give-CMP do-PST-IND
     'The teacher had me give a book to the student.'

(78) Mary-ka nae-ka John-eykey kil-il   mut-key ha-yet-ta.
     M.-NOM I-NOM J.-DAT   way-ACC ask-CMP do-PST-IND
     'Mary had me ask John the way.'

Under the CCU-I:Aberrant Case analysis, (78) is identical in structure to (73) and thus is represented in (74). Specifically, under this analysis, John is a 3-chômeur in the union stratum. In contrast, under the CCU-WR analysis, (78) would be represented as in (79):

(79)

P P 1 U 2 Cho 3 2 3
ha 'do'   Mary   mut 'ask'   John   kil 'way'   na 'I'
P 1 2 3
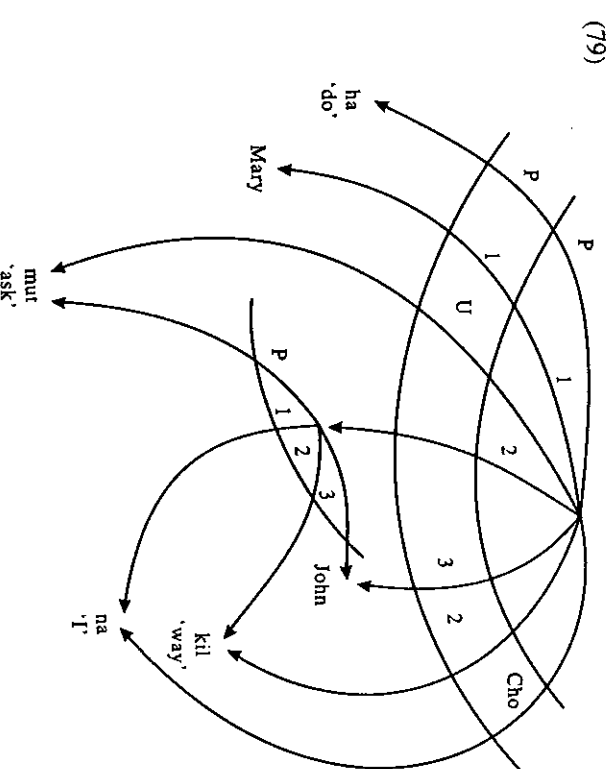
Since the downstairs final 1 is a chômeur in the union stratum, the downstairs final 3 is free to inherit. Specifically, John under the CCU-WR analysis is a 3 in the union stratum, not a chômeur. Note that both analyses can account for the downstairs final 3, as the impossible readings show. However, the two analyses make the two analyses make ... case, since both 3s and 3-chômeurs are DAT. However, the two analyses make the

different predictions concerning PTs: under the CCU-I: Aberrant Case analysis, *John* is a final chômeur and should not be able to be a PT, while under the CCU-WR analysis, *John* is a final term and should be able to be a PT. As (80) and (81) show, the downstairs final 3 *can* serve as a PT in double NOM Causatives:

(80) Haksaeng-eykey-nin sensaengnim-i nae-ka chaek-il
    student-DAT-TOP   teacher-NOM   I-NOM book-ACC
    cu-key   ha-yet-ta.
    give-CMP do-PST-IND
    'The teacher made me give the book *to the student*.'

(81) John-eykey-nin Mary-ka nae-ka kil-il   mut-key ha-yet-ta.
    J.-DAT-TOP   M.-NOM I-NOM way-ACC ask-CMP do-PST-IND
    'Mary made me ask *John the way*.'

Thus, these examples provide further evidence for CCU-WR; furthermore, they show that an analysis assuming that all Korean Causatives involve CCU-I cannot be maintained. Rather, the contrast between impossible readings in (75)–(76) and the possible ones in (80)–(81) supports the claim that Korean has more than one type of Clause Union.

Downstairs Passive and CCU-I

Finally, let us consider a third counteranalysis which involves downstairs Passive and CCU-I. Rosen (1983) rejects such an analysis for Romance cases she analyzes as CCU-WR, such as the Italian Causative in (37) above. In Italian, the pivot nominal in Causatives involving CCU-WR has the same marking as the 1-chômeur in a Passive, e.g., (82):

(82) Il gruppo sara   accompagnato da un interprete.
    the group will-be accompanied by an interpreter
    'The group will be accompanied by an interpreter.'

However, other scholars (e.g., Radford (1978), Raposo (1981), Kayne (1975), Aissen (1974), and Perlmutter (1986)) have maintained that downstairs Passive (or its equivalent) is involved in Romance Causatives.

In Korean, arguing against a downstairs Passive-CCU-I analysis for double NOM Causatives is a straightforward matter, because Causatives based on complement Passives actually exist in Korean and contrast with, e.g., (83). Compare the CCU-WR Causative in (83) to a case of CCU-I with downstairs Passive in (84) and to the simple Passive in (85):

(83) Na-nin sopangkwan-i pul-il   kki-key   ha-yet-ta.
    I-TOP   fireman-NOM fire-ACC put-out-CMP do-PST-IND
    'I had the fireman put out the fire.'

(84) Na-nin pul-il   sopangkwan-eyiyhaese kke-ci-key   ha-yet-ta.
    I-TOP   fire-ACC fireman-by   put out-PAS-CMP do-PST-IND
    'I had the fire extinguished by the fireman.'

(85) Pul-i   sopangkwan-eyiyhaese kke-ci-et-ta.
    fire-NOM fireman-by   put out-PAS-PST-IND
    'The fire was extinguished by the fireman.'

There are several indications that (84), but not (83), involves a downstairs Passive parallel to (85). First, as seen in (85), Passives can be formed by suffixing -*ci* to the verb; this suffix is present on the downstairs predicate of (84) but not on that of (83).[19] Second, advancement 1-chômeurs are suffixed with -*eyiyhaese* 'by' (or other postpositions), as seen in (85); *sopangkwan* 'fireman' is so marked in (84) but not in (83), indicating that it is an advancement chômeur only in (84). Finally, the two analyses make different predictions concerning the downstairs initial 2. In (83), since downstairs passive is not involved, the only option available for the downstairs 2 is Inheritance; it is a union 2, hence ACC. This nominal cannot be NOM, since it is not a downstairs final 1:

(86) *Na-nin sopangkwan-i pul-i   kki-key   ha-yet-ta.
    I-TOP   fireman-NOM fire-NOM put-out-CMP do-PAT-IND
    ('I had the fireman extinguish the fire.')

In (84), *pul* 'fire' is advanced to downstairs final 1 via Passive and serves as the pivot nominal in the causative. If CCU-I is involved, then *pul* is union 2, hence ACC, as in (84), but if CCU-WR is involved, then *na* is union 1-chômeur, hence NOM, as in (87).

(87) Na-nin pul-il   sopangkwan-eyiyhaese kke-ci-key   ha-yet-ta.
    I-TOP   fire-NOM fireman-by   put-out-PAS-CMP do-PST-IND
    'I had the fire extinguished by the fireman.'

In summary, the Causative in (84) involves downstairs Passive and CCU-I; this analysis is not available for (83), since it meets none of the relevant criteria for downstairs Passive.

4   **Causative Clause Union and Upstairs Passive**

Previous sections gave arguments for two types of Clause Union in Korean: CCU-I, in which the pivot nominal is ACC/DAT, and CCU-WR, in which the pivot nominal is NOM. This section provides a further piece of evidence for CCU-WR based upon *ci*-passives in Korean. Example (84) above is an example of a Causative with downstairs Passive. Causatives (88)–(91) involve, however, *upstairs* Passive, as evidenced by the presence of the *ci* suffix on the upstairs predicate *ha-* 'do' and the presence of *eyiyhaese* 'by' on the upstairs initial 1 (the causer), indicating that it is an advancement 1-chômeur.[20]

(88) % Emeni-ka   atil-eyiyhaese casin-iy cip-ey   tolaka-key
mother-NOM son-by   self-GEN house-to return-CMP
do-PAS-PST-IND
'Mother was made by her son to return to her own house.'

(89) % Nae-ka sensaengnim-eyiyhaese ka-key ha-yeci-et-ta.
I-NOM   teacher-by   go-CMP do-PAS-PST-IND
'I was made to go by the teacher.'

(90) % Atil-i   emeni-eyiyhaese os-il   ip-key   ha-yeci-et-ta.
son-NOM mother-by   clothes-ACC put-on-CMP do-PAS-PST-IND
'Son was made by mother to put on clothes.'

(91) % Apeci-kkeyse   celmin kyengchal-eyiyhaese pelkim-il
father-HON+NOM young-policeman-by   fine-ACC
mul-key ha-yeci-et-ta.
pay-CMP do-PAS-PST-IND
'Father was made to pay the fine by the young policeman.'

The NOM nominal (which corresponds to the causee) in the above Passive Causatives is the upstairs final 1. Evidence for this can be given from Subject Honorification and Plain Topics. As discussed in §3.1, a NOM nominal will control Subject Honorification in the upstairs clause only if it is the upstairs final 1; the NOM nominal in the above Passive Causatives can control SH in the upstairs clause, as in (92)–(93):

(92) Emeni-ka   atil-eyiyhaese casin-iy cip-ey   tolaka-key
mother-NOM son-by   self-GEN house-to return-CMP
ha-yeci-si-et-ta.
do-PAS-SH-IND
'Mother was made by her son to return to her own house.'

(93) Apeci-kkeyse   celmin kyengchal-eyiyhaese pelkim-il
father-HON+NOM young policeman-by   fine-ACC
mul-key ha-yeci-si-et-ta.
pay-CMP do-PAS-SH-PST-IND
'Father was made to pay the fine by the young policeman.'

In addition, it was shown in §3.1 that only final terms can be PTs. As shown in (94)–(95), the counterparts to (89) and (90) with PTs are possible, indicating that the NOM nominal in these Causatives is the upstairs final 1.
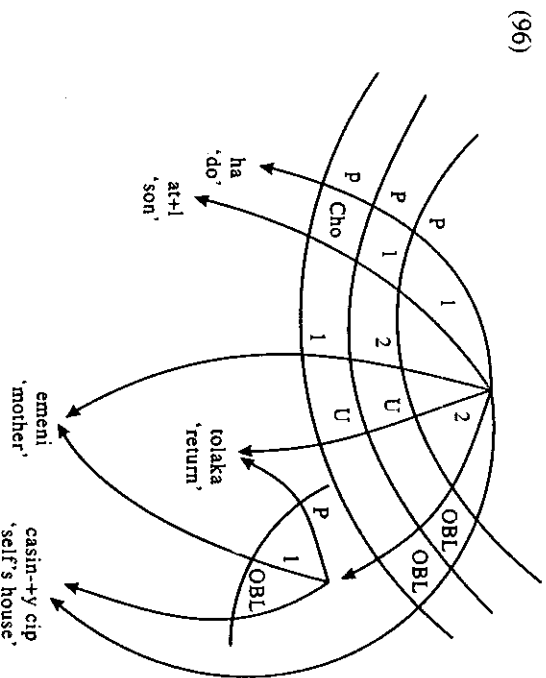
(94) Na-nin sensaengnim-eyiyhaese ka-key ha-yet-ta.
I-TOP   teacher-by   go-CMP do-PST-IND
'I was made to go by the teacher.'

---

(95) Atil-in   emeni-eyiyhaese os-il   ip-key   ha-yeci-et-ta.
son-TOP mother-by   clothes-ACC put on-CMP do-PAS-PST-IND
'Son was made by mother to put on clothes.'

Thus, the NOM nominal in the Passive Causatives contrasts with the second NOM nominal (corresponding to the causee) in Double Nominal Causatives; while the former is the upstairs final 1, the latter (as argued in §3.1) is not.

In presenting an analysis for the Passive Causatives in (88)–(91), I show first that an analysis involving CCU-I, then upstairs Passive, is untenable and, second, that an analysis involving upstairs Passive, then CCU-WR, accounts for the data simply and without further mechanisms. I give an additional argument based upon Inheritance in §4.3 and briefly discuss an alternative involving Equi Clause Union in §4.4.

4.1   CCU-I and Upstairs Passive

In the examples where *ci* is suffixed to the upstairs verb, *ha-* 'do', it is tempting to posit an analysis involving CCU-I followed by upstairs Passive. For example, (88) would be represented as in (96) under this analysis:

(96)

P Cho P 1 P 2 1 U 2 U OBL OBL P 1 OBL

ha 'do'   at+l 'son'   tolaka 'return'   emeni 'mother'   casin+y cip 'self's house'

That is, the Passive Causative (88) has as its non-Passive counterpart the Causative in (97) which involves CCU-I.

(97) Atil-i   emeni-iil   casin-iy cip-ey   tolaka-key ha-yet-ta.
son-NOM mother-ACC self-GEN house-to return-CMP do-PST-IND
'Her son made mother return to her own house.'

However, there are two major difficulties for such an analysis. First, in the

case of CCU-I involving an embedded transitive such as (98), as represented in (99), the downstairs 2 is the union 2.

(98) Emeni-ka   atil-eykey   os-il   ip-key   ha-yet-ta.
mother-NOM   son-DAT   clothes-ACC   put on-CMP   do-PST-IND
'Mother made her son put on clothes.'

(99)
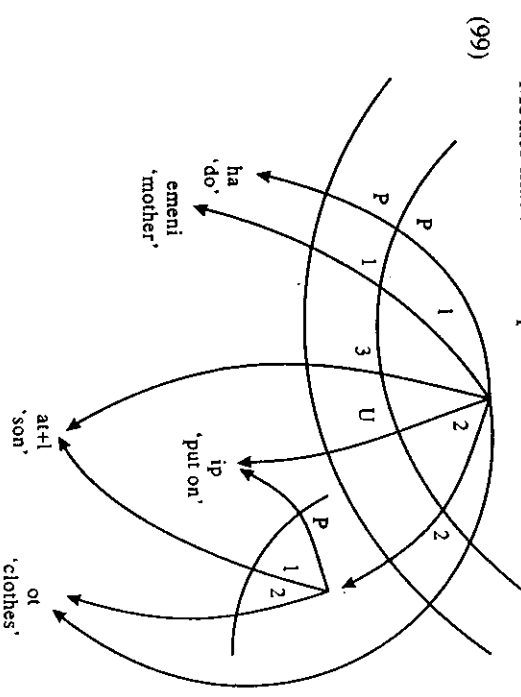
Parallel to the case of CCU-I and upstairs Passive in (96), there should be a Passive counterpart to (99) as represented in (101); however, such a Passive Causative is not possible, as (100) shows.

(100) *Os-i   emeni-eyiyhaese   atil-eykey   ip-key   ha-yeci-et-ta.
clothes-NOM   mother-by   son-DAT   put on-CMP   do-PAS-PST-IND
('Clothes were made to be put on by the son by the mother.')

(101)
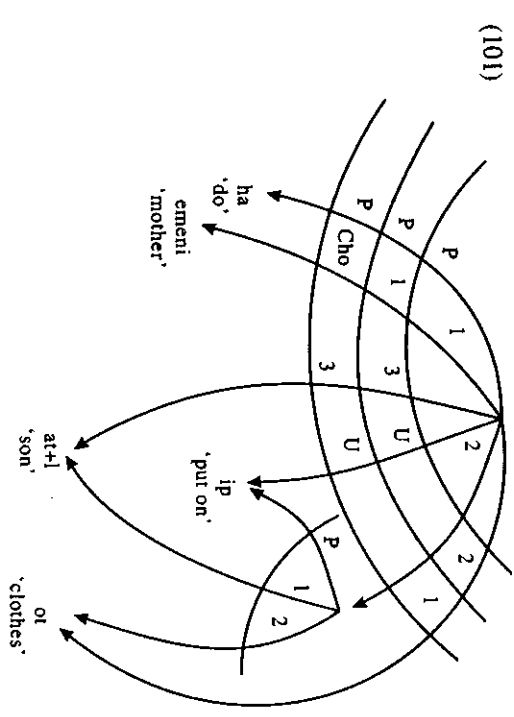
Instead, (90) is possible; it is the downstairs 1 in a finally transitive stratum, posited to be a union 3, which shows up as the final 1 of the Passive Causative.
Two accounts could be given of (90) under this analysis. First, upstairs 3-2 Advancement, then Passive, could be involved, as represented in (102).

(102)
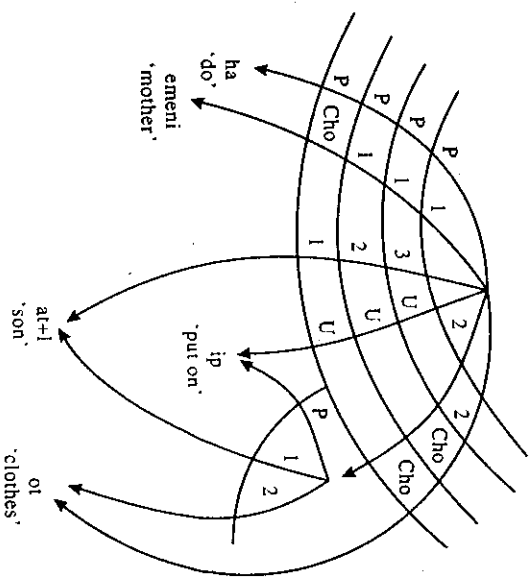
Second, it could be posited that (90) involves advancement of a 3 directly to 1, as represented in (103).

(103)
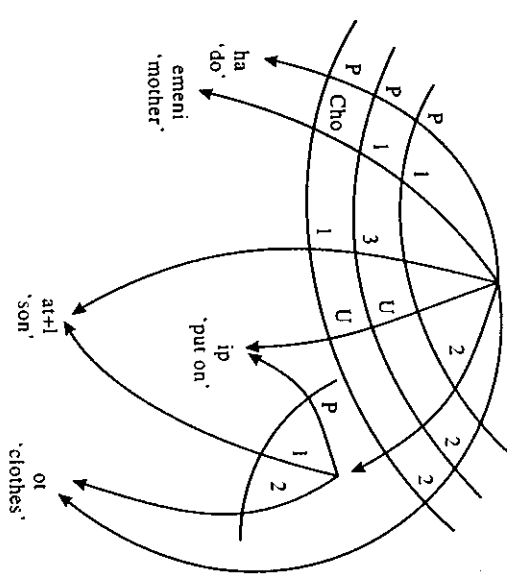
However, neither of these analyses is tenable. The analysis in (102) is untenable, because, as Shibatani (1977) shows, clauses like (104b), which involve both 3-2 Advancement and Passive, as represented in (104c), are impossible

in Korean simple clauses (see Gerdts (1986, 1987) for discussion).

(104) a. Nae-ka haksaeng-til-il yenge-lil   kalichi-et-ta.
        I-NOM student-PL-ACC English-ACC teach-PST-IND
        'I taught the students English.'

b. *Haksaeng-til-i na-eyiyhaese yenge-lil   kalichi-eci-et-ta.
   student-PL-NOM I-by   English-ACC teach-PAS-PST-IND
   ('The students were taught English by me.')
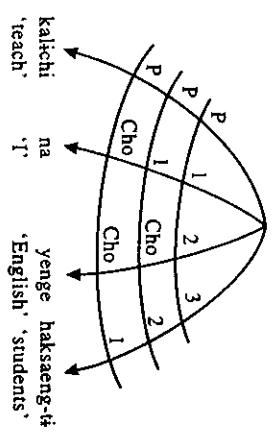
Similarly, (103) would involve a construction not otherwise attested in Korean; *(104b) illustrates that 3-1 advancement is not possible in noncausatives. Moreover, neither the analysis in (102) nor that in (103) explains the ungrammaticality of *(104b). Gerdts (1986) claims that the ungrammaticality of (104b) follows from a constraint on *ci*-Passives, informally stated as (105).

(105) Only *initial* 2s can advance to 1 in *ci*-passives.

This Constraint not only accounts for the impossibility of Passives of 3-2 Advancement constructions but also of Possessor Ascension and Subject-to-Object Raising constructions.

Chun (1986) argues that while the Possessive phrase *Mary-iy elkul* is the final 2 in (106), *Mary* is the final 2 in (107), since this clause involves Possessor Ascension.

(106) a. Yangsu-ka Mary-iy elkul-il   kili-et-ta.
        Y.-NOM   M.-GEN face-ACC draw-PST-IND
        'Yangsu drew Mary's face.'

b.
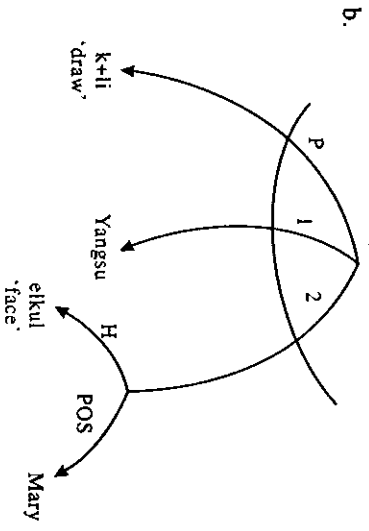
(107) a. Yangsu-ka Mary-lil elkul-il   kili-et-ta.
        Y.-NOM   M.-ACC face-ACC draw-PST-IND
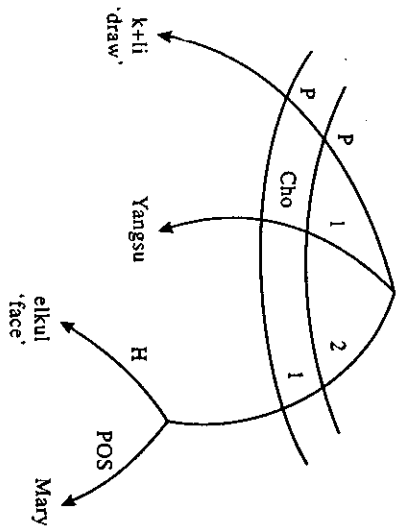   'Yangsu drew Mary's face.'

b.
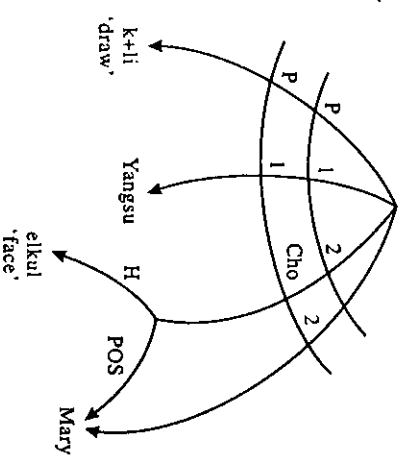
The above analysis, together with (105), predicts that a Passive counterpart should exist to (106), but not to (107), since an initial 2 advances to 1 in the former but not in the latter. This is correct, as seen in (108) and (109).

(108) Mary-iy elkul-i   Yangsu-eyiyhaese kili-eci-et-ta.
      M.-GEN face-NOM Y.-by   draw-PAS-PST-IND
      'Mary's face was drawn by Yangsu.'

(109) *Mary-ka Yangsu-eyiyhaese elkul-il   kili-eci-et-ta.
       M.-NOM Y.-by   face-ACC draw-PAS-PST-IND
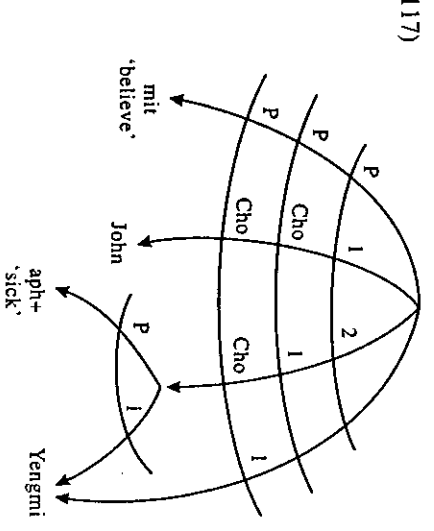   ('Mary's face was drawn by Yangsu.')

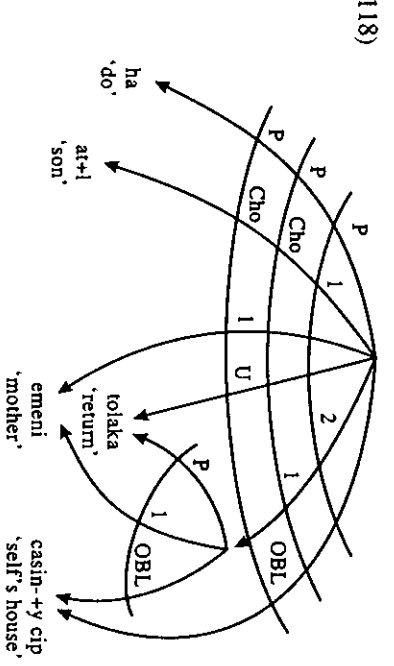The SDs for (108) and (109) are given in (110) and (111):

(110)

(111)

P P P Cho 2 Cho Cho 1 1 2 H POS

k+li 'draw' Yangsu elkul 'face' Mary

Gerdts (1986) also gives evidence for Constraint (105) based on Subject-to-Object Raising data such as (113), the counterpart of (112).

(112) a. John-i [Yengmi-ka aphi-ta-nin-kes]-i   mit-et-ta.
J.-NOM Y.-NOM sick-IND-SLINK-NOML-ACC believe-PST-IND
'John believed that Yengmi was sick.'

b.

P 1 P 2 1 P 1 2

mit 'believe' John aph+ 'sick' Yengmi

(113) a. John-i Yengmi-lil [aphi-ta-nin-kes]-il   mit-et-ta.
J-NOM Y.-ACC sick-IND-SLINK-NOML-ACC believe-PST-IND
'John believed Yengmi to be sick.'

b.

P 1 Cho 2 P 1 2 P 1

mit 'believe' John aph+ 'sick' Yengmi

In (112), where the embedded clause is a final 2 (see (112b)) with respect to the upstairs clause, it is ACC; in addition, in (113), where it is a final 2-chômeur (see (113b)), it is also marked ACC. The Passive in (114), which involves the advancement of a clausal initial 2 (marked NOM), obeys Constraint (105).

(114) a. [Yengmi-ka aphi-ta-nin-kes]-i   John-eyiyhaese
Y.-NOM sick-IND-SLINK-NOML-NOM J.-by
mit-eci-et-ta.
believe-PAS-PST-IND
'That Yengmi is sick was believed by John.'

b.

P 1 Cho 2 P 1 P 1

mit 'believe' John aph+ 'sick' Yengmi

However, as predicted by Constraint (105), the Passive counterpart of (113), which involves the advancement of a noninitial 2, is not possible, as (115) shows.
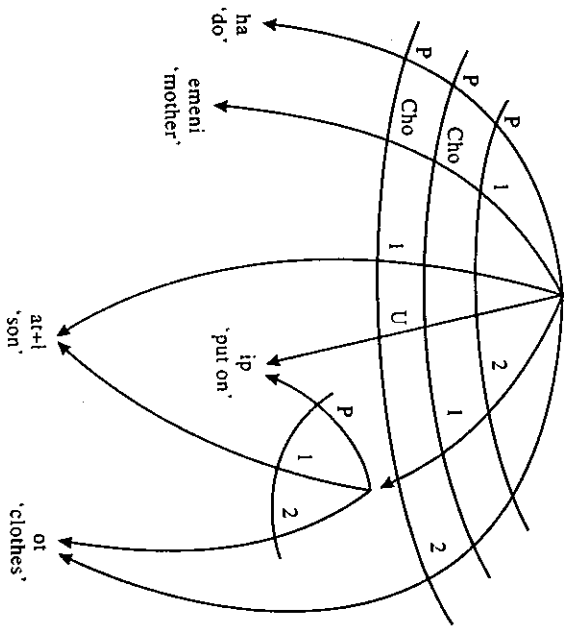
(115) *Yengmi-ka John-eyiyhaese [aphi-ta-nin-kes]-il
Y.-NOM J.-by sick-IND-SLINK-NOML-NOM
mit-eci-et-ta.
believe-PAS-PST-IND
'Yengmi was believed by John to be sick.'

Returning to the problem of Passive Causatives, the analysis in (96), as well as that in (102), violates Constraint (105). In (96), *emeni* 'mother' is not an initial 2; in fact, it bears no relation in the upstairs initial stratum; thus, it should not be able to advance to 1 in a *ci*-passive. The constraint in (105) should apply to this nominal in exactly the same fashion that it applies to the ascendees to 2 in constructions involving Pos-Ascension and Subject-to-Object Raising discussed in §1 (see *(109) and *(115)).

In summary, an analysis involving CCU-I, together with the constraint in (105), incorrectly predicts that upstairs Passive should be altogether impossible. In addition, such an analysis can offer no explanation for the grammaticality of *(90) versus the ungrammaticality of *(100).

4.2 Upstairs Passive and CCU-WR

In contrast, an analysis involving CCU-WR can be given which not only accounts for (88)–(91) versus *(100) but also obeys the constraint on *ci*-

...assives. Gerds (1986) argued for an analysis for sentences like (116) which
...volved upstairs Passive, then Subject-to-Subject Raising,[21] as represented
...(117).[22]

(116) Yengmi-ka John-eyiyhaese [aphi-ta-nin-kes]-i
  Y.-NOM J.-by   sick-IND-SLINK-NOML-NOM/-ACC
  mit-eci-et-ta.
  believe-PAS-PST-IND
  'Yengmi was believed by John to be sick.'

(117)

Diagram (117) — strata labels: P, P, 1, 2, Cho, Cho, 1, 1, Cho, Cho, P, 1; nodes: mit 'believe', John, aph+ 'sick', Yengmi

Evidence for this analysis came from the Case of the downstairs clause; since
... is a 1-chômeur (see (117)), it should be NOM, and this prediction holds, as
(116) shows. Since it is the initial 2, i.e., the entire downstairs clause, which
...vances to 1 in the Passive, there is no violation of the constraint in (105).
A parallel analysis is possible for the Passive Causatives in (88)–(91). I
...laim that they involve upstairs Passive, in which the entire downstairs clause
...vances to 1, then CCU-WR, as represented in (118) for (88) and in (119)
...or (90).

(118)

Diagram (118) — strata labels: P, P, Cho, Cho, 1, U, 1, 2, 1, 1, P, P, 1, OBL, OBL; nodes: ha 'do', at+l 'son', tolaka 'return', emeni 'mother', casin-+y cip 'self's house'

---

(119)

Diagram (119) — strata labels: P, P, Cho, 1, U, 1, 2, 1, 1, P, 2; nodes: ha 'do', emeni 'mother', at+l 'son', ip 'put on', ot 'clothes'

Specifically, note the form of CCU-WR in (118)–(119); since there is no up-
stairs 1—the initial 1 having been placed en chômage via Passive—the down-
stairs final 1 is free, in accordance with the Inheritance Principle, to inherit its
downstairs final relation and thus is the upstairs final 1, as discussed above.
This results in no violation of the Stratal Uniqueness Law; hence the upstairs
initial 1 is a 1-chômeur.

This analysis has two advantages over the preceding one. First, in (118) and
(119) it is the initial 2 which advances to 1 via Passive; thus the constraint in
(105) is obeyed. Furthermore, under this analysis, since CCU-WR is in-
volved, the downstairs final 2—there being no other upstairs 2 after the first
stratum—will inherit its relation in the union stratum, as seen in (119). This is
the only option available to this nominal; there is no means by which the
downstairs final 2 can inherit a 1 relation in the union stratum; a Passive
Causative like *(100), where the downstairs final 2 is upstairs final 1, is thus
predicted to be ungrammatical. In summary, an analysis involving upstairs
Passive, then CCU-WR, predicts that only the downstairs final 1, not the
downstairs final 2, will inherit the 1 relation in the union stratum; therefore
(88)–(91) versus *(100) is predicted under this account, and these data thus
provide evidence for CCU-WR.

4.3   Total Inheritance

The above sections have shown that an analysis involving Upstairs Passive,
then CCU-WR, for Korean Passive Causatives is to be preferred to an analysis

- involving CCU-I, then Passive, because only the former obeys the constraint on ci-passives and predicts the correct array of phenomena with respect to downstairs finally transitive clauses. Furthermore, the latter analysis must posit a construction (either 3-2-1 advancement or 3-1 advancement) not otherwise attested in Korean. This section provides a further argument for the former analysis, based upon the ability of the downstairs nominals to serve as Plain Topics.

The two analyses make clear predictions concerning the status of other downstairs nominals. Under the Upstairs Passive/CCU-WR analysis, all of the downstairs nominals in a Passive Causative like (120) are free to inherit—I refer to this as total inheritance. Thus the downstairs final 1, 2, and 3 are union 1, 2, and 3, respectively, as represented in (121).

(120) Enemi-ka   John-eyiyhaese na-eykey kil-il   mut-key
mother-NOM J.-by   I-DAT   way-ACC   ask-CMP
ha-yeci-et-ta.
do-PAS-PST-IND
'Mother was made by John to ask me the way.'

(121)
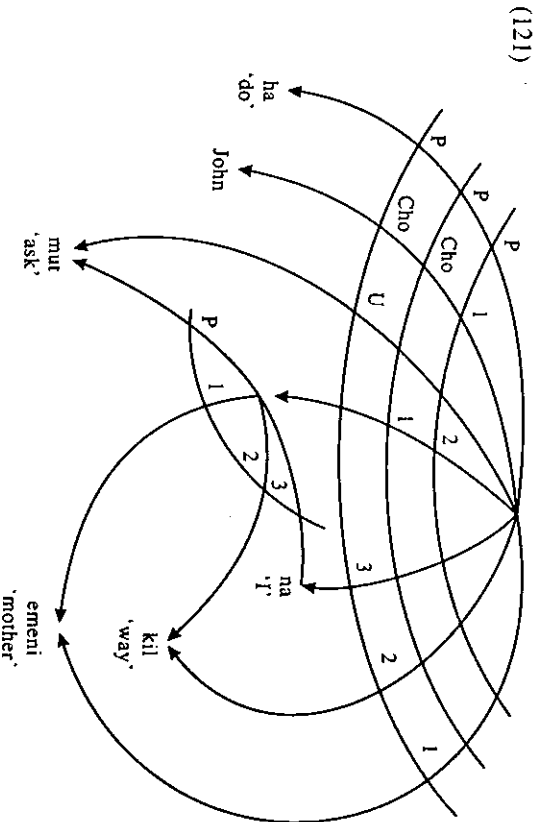
On the other hand, an analysis involving CCU-I, then upstairs Passive, would predict that since the downstairs 1 is revalued as 3 in the union, the downstairs 3 will be unable to inherit, as argued for nonpassive Causatives involving CCU-I in §3.2.2 above. If upstairs 3-1 advancement is posited, (120) would be represented as in (122).

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(122)
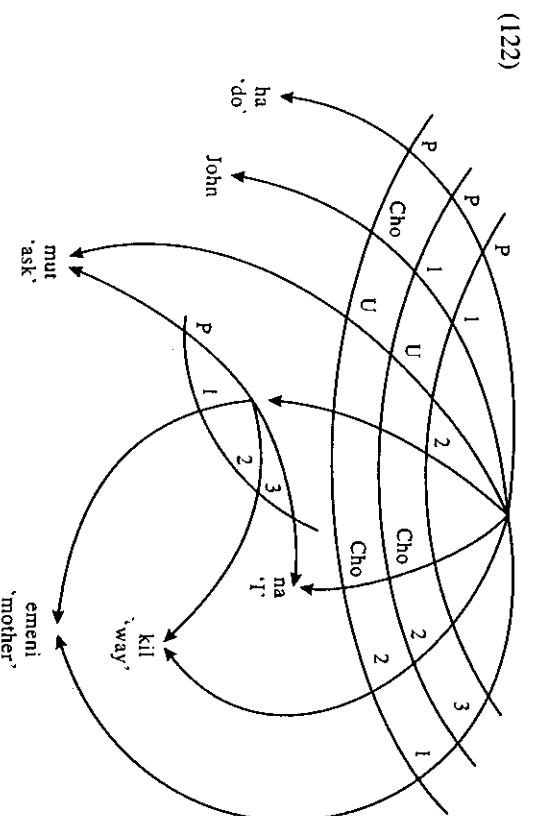
Data from Plain Topics provide evidence that total inheritance is involved in Passive Causatives, since the downstairs 3 (see (123)) can serve as a PT.

(123) Na-eykey-nin emeni-ka   John-eyiyhaese kil-il   mut-key
I-DAT-TOP   mother-NOM J.-by   way-ACC   ask-CMP
ha-yeci-et-ta.
do-PAS-PST-IND
'Mother was made by John to ask me the way.'

Furthermore, if 3-2-1 advancement is posited for the upstairs clause, then the downstairs 2, although it would inherit the 2 relation in the union stratum, would be placed en chômage by the upstairs 3-2 advancement; thus or 'clothes' would be a 2-chômeur, as represented in (102) above. However, we see again that the total inheritance analysis makes the correct prediction: the downstairs 2 is a final upstairs 2, since it can serve as a PT, as in (124).

(124) Os-in   atil-i   emeni-eyiyhaese ip-key   ha-yeci-et-ta.
clothes-TOP son-NOM mother-by   put on-CMP do-PAS-PST-IND
'Son was made by mother to put on clothes.'

Thus the data involving PTs support the Upstairs Passive/CCU-WR analysis; the Inheritance Principle makes the correct prediction: all of the downstairs nominals inherit their relations in the union stratum.

4.4   The Equi Clause Union Alternative

We have seen that an analysis of Korean Passive Causatives involving CCU, then upstairs Passive, runs into difficulty with both inheritance phenomena

and the constraint on *ci*-passives, which limits advances to initial 2s. The analysis I propose, involving upstairs Passive, then CCU-WR, avoids these pitfalls. A distinct analysis involving Equi Clause Union would also accommodate the data discussed so far. Equi Clause Union has been posited by various scholars for some or all of the Causative structures discussed in §3; see Patterson (1974) and the references therein for discussion. A full comparison of an Equi Clause Union to a Causative Clause Union analysis is outside the scope of the present discussion. However, with respect to Passive Causatives, it could be posited that the NOM nominal bears an additional relation in the sentence—final 1 of the downstairs clause but also initial 2 (which advances to 1) in the upstairs clause; the former relation is canceled via Equi by the first. A Passive Causative like (120) above would involve Equi, upstairs Passive, then Clause Union, as represented in (125):[23]

(125)
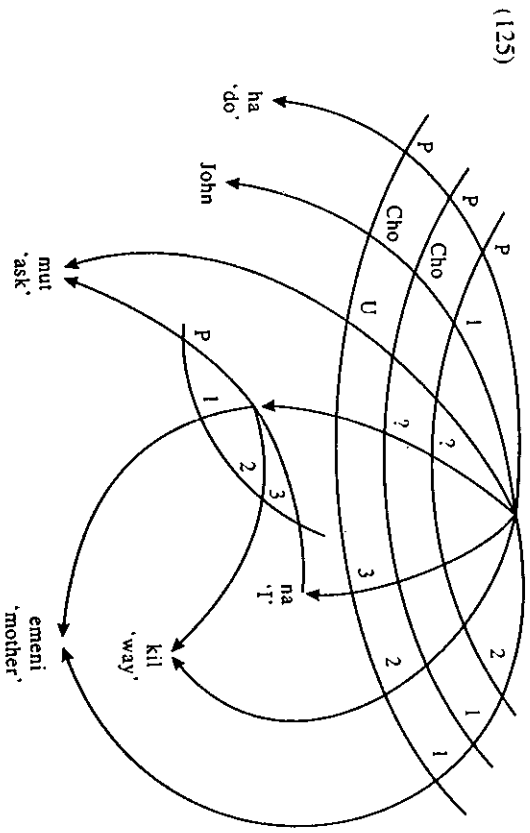
This analysis conforms to the constraint on *ci*-passives, since *emeni* 'mother' is the initial 2 in the upstairs clause. Furthermore, the downstairs nominals simply inherit in the union stratum, there being no upstairs nominals or revalued downstairs 1 to interfere.

However, there is one difficulty with this proposal—the lack of an active counterpart for Passives like (125). At first glance, a Causative like (126), where *emeni* 'mother' is in the ACC case, may appear to be the active Causative which corresponds to (125) and would be represented as in (127), where *emeni* is the initial upstairs 2 controlling the downstairs 1.

(126) John-i emeni-lil   na-eykey kil-il   mut-key ha-yet-ta.
       J.NOM mother-ACC I-DAT   way-ACC ask-CMP do-PST-IND
       'John had mother ask me the way.'

(127)
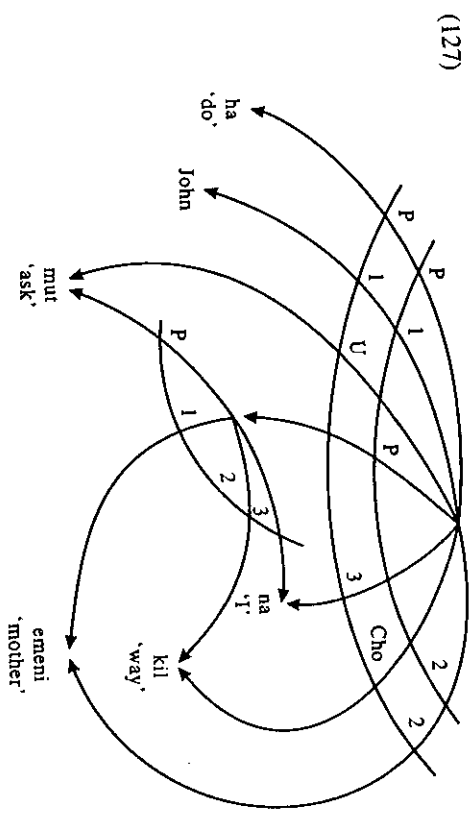
As seen in (127), the prediction that such an analysis makes is that while the downstairs 2 is blocked from inheritance (by the upstairs 2), the downstairs 3 is free to inherit. However, PT data show that *na* 'I' is a 3-chômeur, not an upstairs final 3, since it cannot serve as a PT. This is shown by the impossible reading of (128).

(128) %Na-eykey-nin John-i emeni-lil   kil-il   mut-key ha-yet-ta.
       I-DAT-TOP   J-NOM mother-ACC way-ACC ask-CMP do-PST-IND
       (*'John had mother ask me the way.')
       /'John had *me* ask mother the way.'[34]

Thus, it would appear that Causatives with an ACC-marked pivot nominal are analyzed as discussed in §2.2: they involve CCU-I and upstairs 3-2 advancement; (128) would be represented as in (129).

(129)
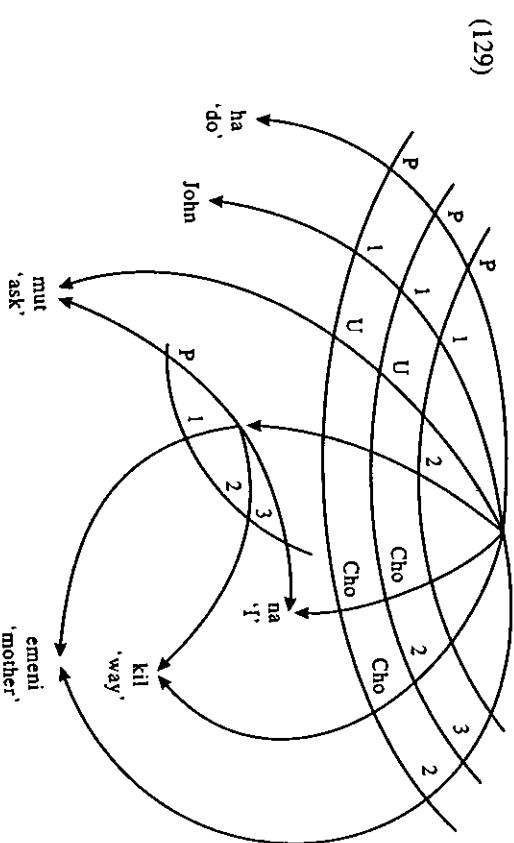
Revaluation of the downstairs 1 to 3 blocks the inheritance of the downstairs 3, which is placed en chômage.[25]

We see then that an analysis positing *emeni* to be an initial upstairs 2 is problematic, because the active counterpart of this construction, where *emeni* is an upstairs initial and final 2 controlling the downstairs final 1, is nonexistent in Korean.[26] An Equi Clause Union analysis is to be rejected in favor of the analysis involving CCU-WR. The pivot nominal is a downstairs final 1 which inherits its relation in the union stratum.

Conclusion

The Korean data provide support for two concepts within the relational treatment of Causatives: Revaluation and Inheritance. I have argued that Korean has Revaluation Causatives (where the pivot nominal appears in ACC or DAT case) and Causatives without Revaluation (where the pivot nominal appears in NOM case), the latter supporting Rosen's claim that such Causatives should be included in Universal Grammar. Furthermore, I argued for a distinction in Korean between downstairs final terms which were also upstairs terms (with the same value), thus supporting the notion of Inheritance, and downstairs final terms which were upstairs chômeurs, supporting the notion no Inheritance. The Korean data thus confirm the Inheritance Principle, as proposed by Gibson and Raposo (1986), and the relational law on which it is based—the Stratal Uniqueness Law.

The Korean Passive Causative, which I claim involves upstairs passive and CCU-WR, is a new case of Inheritance. While Gibson and Raposo (1986) give evidence for the inheritance of 2-hood, 3-hood, and nontermhood, Korean provides the first evidence for the inheritance of 1-hood (the NOM nominal in Passive Causatives). In fact, in Korean Passive Causatives, everything inherits; this is what I call *total inheritance*. Furthermore, the Korean Passive Causative provides a unique argument for the biclausal initial structure of Union Causatives. Since *ci*-passives are limited to initial 2s, and since, under my analysis, the entire downstairs clause advances in a Passive Causative, the downstairs clause must bear the 2 relation.[27]

Notes

1. The following abbreviations are used in glosses of the Korean data:

ACC	Accusative	NOM	Nominative
CMP	complementizer	PAS	Passive
DAT	Dative	PL	plural
GEN	Genitive	PST	past
HON	honorific	SH	subject honorific
IND	indicative mode	SLNK	subordinating linker
LNK	linker	TOP	topic
NOML	nominalizer		

2. There is no discussion of 'lexical' causatives formed with the suffix *-hi/-ki*, etc., in this paper. See Gerdts and Youn (in preparation) for a comparison of 'lexical' causatives to *ha-ta* Causatives within a Relational treatment.

3. The semantic notion 'causee' does not adequately delimit the nominals which participate in Causatives; it is used here to introduce the data in a pretheoretical manner. Section 2 introduces the more satisfactory notion *pivot nominal*.

4. Section 2.2 offers an analysis of Causatives like (2) where the causee is in the ACC case; see the representation in (25b). I do not discuss Causatives like (1), where the causee is in DAT case, in this paper. Several analyses within RG are available for such data, but I do not have arguments to distinguish them at this point.

5. Readers unfamiliar with Relational Grammar are referred to Perlmutter (1980) and Perlmutter and Postal (1983a, 1983b) for an introduction to the concepts utilized in this paper.

6. I use the symbol % to indicate data accepted by some speakers but rejected by others. See note 20 for further discussion of these examples.

7. I prefer the structurally defined—rather than semantically defined—term *pivot nominal*, since not all downstairs final 1s in Korean are causees, as becomes apparent in §3.2.3.

8. For an explicit formulation of a Case rule for Korean, see Gerdts (1986), Gerdts and Youn (in preparation). Basically, case is assigned according to the *last* relation borne by a nominal: 3s and 3-chômeurs are DAT, 2s and 2-chômeurs are ACC, 1s and 1-chômeurs are NOM—except for 1-chômeurs in Passives, which are marked by *eyuy-haese* 'by', DAT, or other postpositions. Obliques take a variety of semantically determined postpositions.

9. Various Equi or Raising analyses have been posited, as discussed in Patterson (1974) and Gerdts and Youn (in preparation), where the final structure could be represented as follows:

(i) [sensaengnim na [tolaka] ha]
    teacher   I return do

(ii) [John na [ttek   mey] ha]
    J   I   rice-cake eat do

However, the arguments in this section, since they concern the status of the downstairs predicate and the downstairs object, would also argue against such analyses.

10. I would like to thank Cheong Youn for testing over one hundred Korean speakers who live in the Buffalo area. The results of his survey showed that about 60 percent of speakers accept the data marked %, a most surprising result to Youn and me, since only one of the eight Korean graduate students I surveyed allowed such data. Obviously further work needs to be done to characterize in detail the variation involved with these data.

11. The form *lako* is complex, consisting of *la* 'imperative' and *ko* 'complementizer' (see (52)). It is only used when the matrix verb designates a speech act.

12. Perlmutter's condition is intended to handle a large range of causative data, including pronominal clitics, noun incorporation, and *wanna* contraction, which is correlated with Equi Clause Union in RG (see Postal and Pullum (1986) and the references therein). However, this condition is stated very informally; further elaboration of the RG view of morphology, including a formal definition of the notion 'determines', is required.

Paul Postal has pointed out to me that a condition like (23) could be made precise...

Donna B. Gerdts

within Arc Pair Grammar: the *sponsors* of arcs internal to the word must be *neighbors* that is, they must share a tail node).

13. Throughout this paper, the * on a sentence with a Topic means that the example is not acceptable as a case of PT. Most of these examples can be Contrastive Topics if the right kind of context or intonation is provided. See Gerdts (1986) for a discussion of the distinction between Plain and Contrastive Topics.

14. NOM and ACC case, unlike DAT or other postpositions, cannot co-occur with TOP.

15. The 'policeman', being young, is not a good candidate for honorification.

16. Predictably, examples like (i), where CCU-1 is involved, and thus *Mary* is ACC, are much easier for speakers to process.

17. Examples like (i) may at first glance seem to be parallel to the ungrammatical sentences in (54) and (56).

(i) Nae-ka John-eykey [PRO Mary-i+l ttena-tey   ha-tolok] puthakha-yet-ta.
     I-NOM J.-NOM   M.-ACC   leave-CMP do-CMP ask+do-PST-IND
     'I asked John to make Mary leave.'

(ii) #ysa-ka   [emeni-eykey kanhowen-i ki   yak-i+l   mek-key ha-lako]
     doctor-NOM   mother-DAT   nurse-NOM the medicine-ACC eat-CMP do-CMP
     tangpuha-yet-ta.
     request+do-PST-IND
     'The doctor requested that the nurse make mother take the medicine.'

However, (i) *emeni* 'mother' is not the 3 in the highest clause, as indicated by the gloss; rather this sentence involves scrambling within the lower clause.

18. The (b) reading in (58) seems strange because the honorific form of 'eat', *capsi*, is preferred when *emeni* 'mother' is the subject.

19. That downstairs, and not upstairs, Passive is involved is shown clearly by the presence of *ci*- on the downstairs rather than the upstairs predicate. Other evidence for Honorification on the downstairs predicate; this shows clearly that this nominal is the downstairs final 1.

20. Not all Korean speakers accept Passive Causatives (88)–(91). In fact, a survey of thirty speakers conducted by Cheong Youn of the State University of New York at Buffalo revealed that nine speakers accepted (90), sixteen speakers rejected it, and five speakers were undecided; other Passive Causatives yielded similar results. However, all the speakers surveyed accepted Passive Causatives where *toy*- 'become' is used instead of *ha-yeci-*, as in (i)–(ii).

(i) Emeni-ka   atil-eyiyhaese casin-iy cip-ey   tolaka-key toy-et-ta.
     mother-NOM son-by   self-GEN house-to return-CMP become-PST-IND
     'Mother was made by her son to return to her own house.'

(ii) Nae-ka sensaengnim-eyiyhaese chaek-i+l   ilk-key   toy-et-ta.
     I-NOM teacher-by   book-ACC read-CMP become-PST-IND
     'I was made to read the book by the teacher.'

Passive Causative data with *toy*-Passives exactly mirror the *ci*-Passive data discussed in §4 above. For example, (i) and (ii) are acceptable, while (iii), which corresponds to (100), is not:

(iii) *Os-i   emeni-eyiyhaese atil-eykey ip-key   toy-yet-ta.
      clothes-NOM mother-by   son-DAT   put-one-CMP become-PST-IND
      ('Clothes were made to be worn by the son by the mother.')

My view of this is that *toy*- and *ha-yeci*- Passive Causatives are identical in syntactic structure. See Gerdts and Youn (in preparation) for a justification for this claim. Furthermore, Gerdts and Youn (in preparation) shows that *toy*-Passives are limited to initial 2 and are thus like *ci*-Passives in the respect relevant to this discussion.

For the remainder of this paper, the data involving Passive Causatives represent only the judgments of the few speakers I have worked with who accept (88)–(91).

21. The equivalent of this analysis has been argued for by Kuno (1974) for English and by Kuno (1976) for Japanese.

22. For some speakers, examples like (116) might not involve Raising but simply Passive of the entire clause (like (114) but with the chômeur in an alternative word order). This would account for the fact that example (i), which involves Subject Honorification (cf. §3.1) of the alleged Raised nominal, is unacceptable for some speakers.
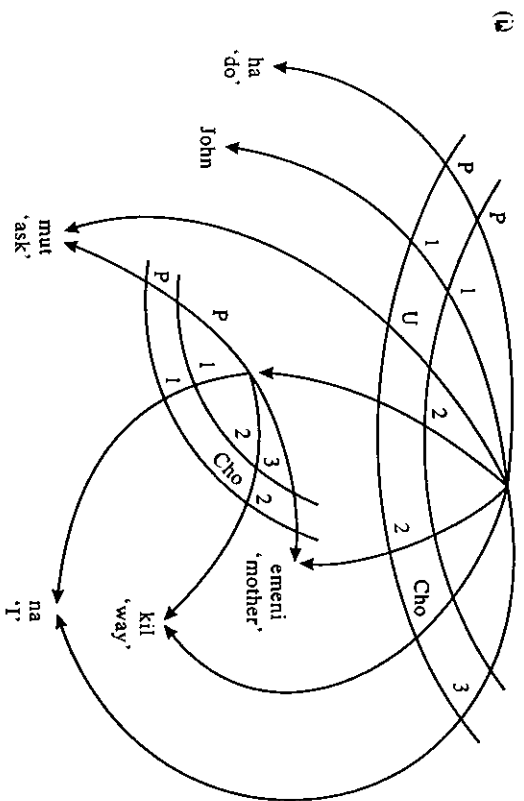
(i) Apeci-ka   John-eyiyhaese aphi-ta-nin-kes-i   mit-eci-(%si)-et-ta.
     g.father-NOM J.-by   sick-IND-SLINK-NOML-NOM believe-PAS-SH-PST-IND
     'Grandfather was believed to be sick by John.'

However, that some speakers accept such examples provides evidence for the upstairs final 1-hood of the Raised nominal, since, as shown in §3.1, only a clausemate 1 determines SH on a predicate.

23. An analysis involving Equi, Clause Union, then upstairs Passive, as represented in (i), would incorrectly predict the inheritance of the downstairs 2.
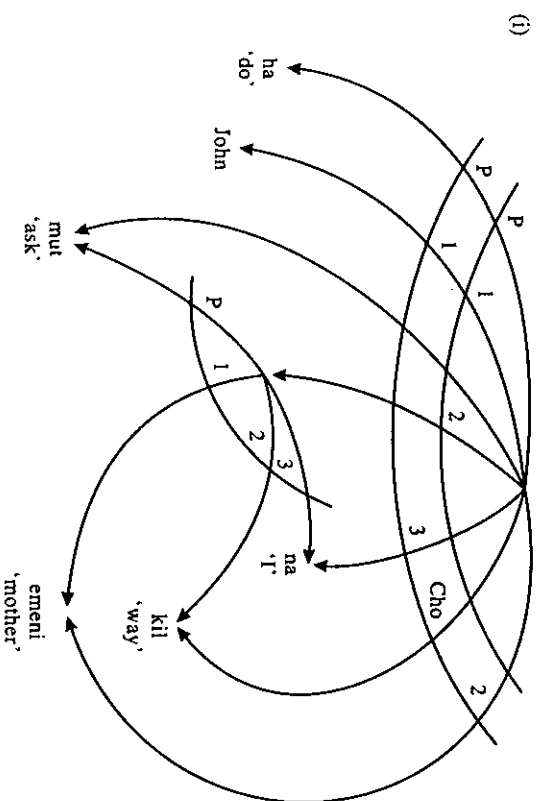
(i)
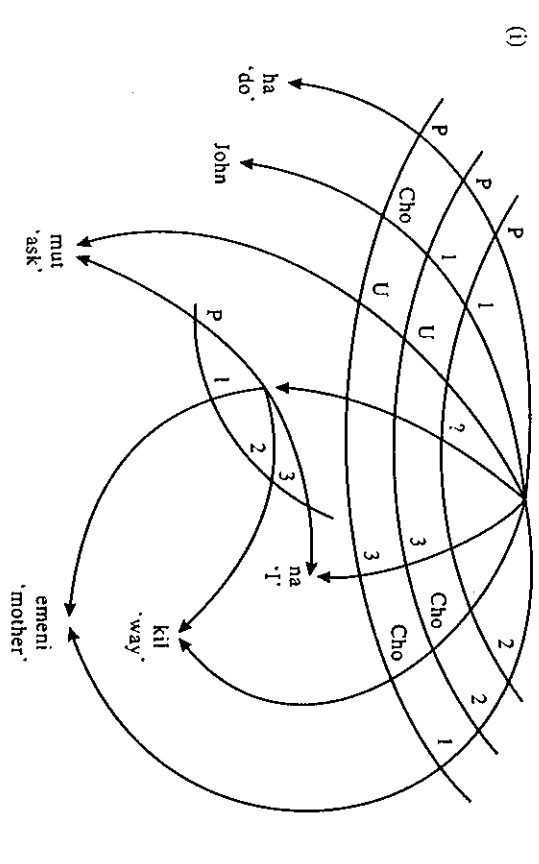
24. The example in (128) under the second reading would involve downstairs 3-2 advancement and CCU-1, as represented in (i):

(i)

ha 'do'   John   mut 'ask'   emeni 'mother'   Cho   kil 'way'   na 'I'

P   P   U   1   2   3   2   2   3   2   1   2   3

Example (128) is only possible for speakers who allow 3-2 advancement in clauses with the predicate *mut* 'ask', as in (ii); an informal survey suggests that this is less than half of Korean speakers.

(ii) %Nae-ka emeni-lil kil-il mut-et-ta.
I-NOM mother-ACC way-ACC ask-PST-IND
'I asked mother the way.'

25. An analysis involving CCU where the pivot nominal is revalued as a 2, as proposed for Chamorro by Gibson (1980) (see §3), would also incorrectly predict the inheritance of the 3, as represented in (i).

(i)

ha 'do'   John   mut 'ask'   Cho   na 'I'   kil 'way'   emeni 'mother'

P   1   P   1   2   3   P   1   2   3   2   2

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following data (in her orthography):

26. As an argument that such Causatives have Equi structures, Patterson cites the following data (in her orthography):

(i) Na-ka Yengsu-lul ku-ka kuk-lul kkuli-key ha-ess-ta.
'I caused Yengsu to boil the soup.'

Patterson claims that a pronoun can occur in downstairs 1 position while *Yengsu* is upstairs 2. She provides evidence for an extra nominal; hence, Equi would not occur. But I have found no Korean speaker who regards this sentence as grammatical, even though the above sentence with a DAT-marked causee seems to be more acceptable. However, before such data can be used as evidence for an Equi structure, it must be established that the 3d person pronoun is actually the final downstairs subject rather than an emphatic pronoun modifying the causee.
The same comment can be made concerning data with the reflexive *caki*, as in (ii).

(ii) Nae-ka Yengsu-eykey caki-ka ttena-key ha-yet-ta.
I-NOM Y.-DAT self-NOM leave-CMP do-PST-IND
'I made Yengsu (himself) leave.'

This topic is discussed further in Gerdts and Youn (in preparation).
27. Since this paper was written, Davies and Rosen (1988) have proposed a monoclausal analysis for Clause Union Causatives. As they note, the Korean evidence bears crucially on their proposal, since the analysis of Passive Causatives given here requires a biclausal analysis in which the downstairs clause bears an initial 2 relation in the upstairs clause.

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6 Categorial Grammatical Relations: The Chamorro Evidence

Jeanne D. Gibson

Introduction

The hope that grammatical relations can be defined in terms of some presumably more basic notions of grammatical theory has shown remarkable persistence. A wide range of other notions, including dominance, linear order, case, dependency, and categorial features, has been proposed as basic at one time or another. Each of these has engendered a concomitant definition, overt or implicit, of relations like subject and direct object. The current interest in this area stems, at least in part, from the results obtained by linguists working in relational grammar (RG) and other frameworks which characterize syntactic structure directly in terms of grammatical relations (GRs). I think it is clear that this work has led to insightful analyses of data in individual languages and has proposed potentially significant cross-linguistic generalizations. Thus, the issue with respect to proposed definitions of GRs has shifted somewhat. We can view the earlier question as asking whether or not it was possible, given some set of primitives, to define GRs in a way that would satisfy the linguist's intuitive notion of what, e.g., a subject is. Typical of work in this vein is Keenan's (1976) "Towards a Universal Definition of Subject" and Schachter's (1977) "Reference-Related and Role-Related Properties of Subject."

But given the results obtained with GRs taken as primitives, it is now possible to ask whether a proposed definition of GRs picks out the 'right' set of nominals as, e.g., subjects, where the term 'right' gets its content from these results. I want to make clear at the outset that I am not trying to insist that the RG analysis of some phenomenon must be translated exactly into the new proposal but rather that the analysis given in terms of primitive GRs provides a measure for evaluating other analyses. To say the same thing in a slightly different way, we want a definition of GRs to have the consequence that, when