POSSESSOR ASCENSION IN UNIVERSAL GRAMMAR

Brian Robinson

This paper, done in the framework of Relational Grammar (RG), examines Possessor Ascension (PA), a syntactic process exemplified in the literature, but heretofore not rigorously justified. Three cross-linguistic strategies of PA are examined, with particular regard to their implications for certain laws postulated in the current theory. In those cases where a PA analysis would violate these laws, it is shown that analyses can be found which are more appropriate not only for RG theory, but also for the linguistic facts.
Since 1972, a number of linguists have been developing the theory of Relational Grammar (RG), and offering it as an alternative to the traditional Chomskyan approach to Universal Grammar. Relational Grammar assumes that the syntactic notions subject (1), direct object (2), and indirect object (3) are unanalysable primes of language, in opposition to the transformational tenet that these notions are analysable in terms of precedence and dominance relations in structural configurations. It is claimed, and it seems to be the case, that certain cross-linguistic generalisations can be made in terms of these grammatical relations (GRs) which are impossible to capture in terms of transformational phrase-markers, which are language-specific. For instance, the rule of Passive can be described as the advancement of 2 to 1. Each individual language will of course apply this rule with its own 'side effects' (for English, 2 and 1 switch places, be + en, by ____), but every language that has a Passive rule will incorporate the universal schema above. In addition to this claim, relational grammarians assert that language-specific processes that can be described simply by employing GR-oriented rules can only be handled in a transformational framework by ad hoc devices (Frantz 1977: i).

Certain more recent advancements in transformational theory come closer to meeting the objections of relational grammarians to the language-specificity of transformational rule schemata. For instance, the rule "move α" seems a schema which is much more applicable cross-linguistically than earlier structural operations. Still, this rule applies to ordered structural configurations, while relational schemata apply to unordered relational networks. In languages with "scrambling", for instance, transformationalists are forced to impose an artificial ordering on underlying forms, and then reorder them transformationally in certain ways. Since relational networks have no order imposed on them, grammars based on GRs can postulate few ordering rules in the linearisation component, and "scrambling" will fall out naturally.

In any case, RG provides an alternative theory of Universal Grammar, and makes interesting statements and predictions about the class of natural languages. The rule schemata that have been developed, and the constraints and conditions on possible schemata, are postulated to apply to all natural languages. Certain schemata, such as Passive, Dative, Anti-Passive, and Clause Union have been argued for in a number of articles. The number of schemata that have been argued for, however, does not exhaust the possibilities. One such possibility -- that of Possessor Ascension -- is the rule to which this paper will be devoted. Several relational grammarians have assumed such a rule in the particular language they were working in, but, to the best of my knowledge, there has not yet been an argument for a rule schema that will be applicable cross-linguistically. This paper will be a survey of the types of Possessor Ascension (PA) rules to be found in a number of different languages, and an analysis of their operation in terms of relational laws and tendencies. I make no claims of exhaus-
tiveness. Data from only a few languages will be presented. However, I will show that interesting cross-linguistic generalisations about the types of PA rules available can be made. Some of the data to be presented originates in other work, and some of it is my own (and, to the best of my knowledge, is presented here for the first time).

It is not the purpose of this paper to argue for relational analyses over transformational ones. Several such comparisons have been made, notably by Bell (1976). Rather, I choose to work in the framework of RG, assuming that it is a workable descriptive construct, and will show what predictions it makes about PAs and whether or not the data from natural languages fit those predictions. Relational laws, being universal ones, are empirically testable, and not all the data presented herein seem to fit these laws. However, no example of the violation of a certain postulated law or constraint can vitiate the theory as a whole. It may be that the theory wants modification, and it may be that the analysis of the data is incorrect. Other, more appropriate, analyses may bear out the theory. Two such examples will be discussed in this paper.

Sentences (1) and (2) exhibit the phenomenon which the rule of PA has been postulated to describe.

1 Mary kissed John's lips.
2 Mary kissed John on the lips.

In sentence (1), John's lips bears the GR2 to the sentence as a whole; whereas in (2), John alone bears that relation. Presumably, we can say that the possessor of 2 (poss-2) has become the 2 itself. The question arises as to the necessity to postulate the rule at all. The answer is a stock one. On the assumption that the relational network which describes sentence (1) bears some close relationship to the semantic form, or at least exhaustively specifies the semantic content, relating sentence (2) to (1) by rule obviates the necessity of postulating separate relational networks for the same semantic content. This, presumably, results in a simplification of the grammar, especially if the rule is a productive one. Since a simpler grammar is presumed by most theorists to be a better grammar, a grammar which relates (1) to (2) by rule is better than one which generates them separately.

These, basically, are the assumptions of this paper. The paper will proceed in four steps. First, I will establish the framework of RG within which I intend to work. Next, the three cross-linguistic PA strategies which I have isolated at this point in my research will be discussed separately, along with their individual implications for RG.

THE FRAMEWORK

The innovators in the field of RG are Paul Postal, David Perlmutter, and David Johnson. There have been, so far, three stages in the development of RG. The first was Early RG (ERG), elucidated in Johnson (1974). More recently, the theory of Uni-Network RG (NRG) has been partially spelled out in Perlmutter and Postal (1977, 78) and Postal (1977). Still to be widely disseminated is Postal and Johnson's theory of Arc-Pair Grammar.

1 An earlier version of this paper was presented at the Canadian Linguistic Association, Saskatoon, May, 1979.
I will be working, in this paper, within the framework of NRG, as much as possible. As the available material concerns, for the most part, basic clause structure and advancement rules, and this paper deals with ascensions from lower elements, there are some holes in the framework. Where necessary, I will need to rely on somewhat older conceptions of complex clause structure, ascension rules, and laws pertaining thereto.

Basic clause structure consists of three elements: (1) primitive linguistic elements, (2), primitive grammatical relations, and (3) linguistic levels (Perlmutter and Postal 1978: 3). They are arranged in unordered networks, the linguistic elements being connected by arcs labelled with GRs and linguistic levels. A network can be represented graphically as follows:

\[
\begin{array}{c}
\text{a} \\
\uparrow \text{GR}_x \\
\text{C}_1 \\
\downarrow \\
\text{b}
\end{array}
\]

where (b) is a linguistic element in (a) (presumably 'the clause'), bearing the GR (x) at linguistic level (1). Sentence (3) would have the network (3a).

(3) John kissed Mary.

(3) (a)

In this sentence, kiss bears the predicate relation, John the subject relation, and Mary the direct object relation at the initial level. Presumably, this configuration is very close to the semantic form at clause level for all languages, as 'there are fairly straightforward principles for assigning (initial) grammatical relations on the basis of semantic notions such as agency, recipiency, affect, etc.' (Frantz 1977: 1).

Linguistic levels are related to each other by rules. So, the network for sentence (4) is (4a).

(4) Mary was kissed by John.

(4) (a)
On level \( C_0 \), Mary bears the relation 1 to the clause, whereas John, the initial subject, now bears the relation '1-chomeur'. The chomeur relation is the relation borne by a linguistic element whose initial GR has been usurped -- in this case, by the initial 2. The linguistic levels exhibited by (4a) are related by the universal rule of Passive, (5). The chomeur-creating part of Passive does not have to be stated by the rule, since it is entailed by a universal law, the Chomeur Law, (6).

(5) \( 2 \rightarrow 1 \)

(6) If an RN (Relational Network) contains arcs of the form 
\[ \text{Term}_x (a, b) < C_u k C_y^> \] and \[ \text{Term}_x (a, b) < C_{k+1} C_y^> \], then it contains an arc of the form \( \text{Cho}(a, b) < C_{k+1} C_y^> \). (Perlmutter and Postal 1978: 25)\(^2\)

In other words, if (c) takes on the relation borne by (a) at some level \( k \), (a) must take on the relation 'chomeur' at that level.

So, 'linguistic elements' correspond loosely to 'words', and 'linguistic levels' correspond to what transformationalists call 'derivations', although Postal and Perlmutter insist that 'levels' are not 'derivations'. GRs, on the other hand, do not correspond to any concept formally allowed in transformational derivations. There are quite a few primitive GRs allowed by the theory, of which those in Table 1 comprise an incomplete list.

**TABLE 1**

```
GRs
  ↓
Central
  ↓
Core
  ↓
Pure
  ↓
Terms
  ↓
Impure
  ↓
Obliques
  ↓
Retirement
  ↓
1
↑
↑
↑
↓
BEN
↑
↓
DEL
↑
↓
INST
↑
↓
GOAL
...```

The most important division here is that between 'pure' and 'impure' GRs. 'Impure' GRs include DELegative, INStrumental, BENefactive, etc., all corresponding to traditional 'case theory' categories, and all containing some semantic information. 'Pure' terms are syntactic relations that bear no semantic content whatsoever. That is, one can presume nothing about the semantic content of the nominal bearing the relation Term, at an

\(^2\)This law appears to be in theoretical trouble, per Perlmutter and Postal (1978: 51-70). I will return to it later.
unspecified level. The nominals that can bear the relation Term will be those that can bear it initially, plus those that can take on the relation by some rule, or combination of rules, of the grammar. On the other hand, a nominal that bears the relation GR<sup>LOC</sup> can be presumed to be a locative. No syntactic rule can "create" an impure GR. This is specified by the Oblique Law, (7).

(7) If A is an Oblique Arc, A is a C<sub>1</sub> arc (Postal and Perlmutter 1979: 15).

In other words, any nominal which bears an impure relation at any level must bear it at the initial level.

One theoretical construct which appears to have diminished in importance recently is the Relational Hierarchy. In the past, it was assumed, with much justification, that syntactic rules operated hierarchically, according to (8).

(8) RH: 1 > 2 > 3 > Oblique ... That is, a rule which applies to 3s necessarily applies to 2s and 1s as well. Therefore, a language which relativizes on 3s must also relativize on 2s and 1s. A language which has a rule advancing 3 to 1 must also have a rule advancing 2 to 1. The RH, in later literature, appears to have been abandoned without much fuss or fanfare, although I cannot, with any assurredness, attest to its status myself. Some of the data later in the paper will support this abandonment.

There are a number of distinct types of rules which have isolated as formulatable in relational terms. The types most central to this paper are advancements and ascensions. Advancement occurs when a nominal bearing some GR "advances" to the GR of some other nominal. That nominal, by the Chomeur Law (6), automatically gains chomeur-hood. The passive demonstrated on page 3 is an advancement rule. An ascension occurs when a nominal in a lower clause "ascends" to bear some relation in the higher clause. Object raising is a case in point, as exhibited by sentence (9).

(9) These books are difficult to read.

(9) (a)

In sentence (9), to read these books bears the 1 relation to the upper clause at the initial level. At level C<sub>2</sub>, these books has ascended, assumed the GR<sub>1</sub>, and relegated what is left of the downstairs clause to 'chomeur' status. I am not going to argue for this analysis, as this has been done elsewhere. I merely wish to show how ascensions are analysed in NRG.
This lays the basic groundwork for the arguments to follow. I have established the framework within which I am going to work. Certainly, I have not exhausted the relevant laws and rules which I will need to invoke at various points in this paper. However, those which will become salient can be unfurled more advantagously as they arise.

As stated before, I am going to demonstrate three different strategies which appear in natural languages for PA operations. The first strategy follows the rules of RG as presently formulated in all its facets. Since a strategy which exhibits orthodox behaviour is the most advantageous way to start a sound argument, I will discuss it first.

THE NO-CHOMEUR-MARKING STRATEGY

Possessor ascension is a rule in which the possessor of a nominal which bears some GR ascends to take on some GR in the main clause. I repeat sentences (1) and (2) here for convenience.

(1) Mary kissed John's lips.
(2) Mary kissed John on the lips.

I assume, without much argument but with certain justification, that the relational network which describes sentence (1) is that in (10).

\[ \text{That is, } John \text{ is a nominal which bears the GR}_{\text{poss}} \text{ to the nominal } \text{lips}, \text{ as per Frantz (1979).} \]

\[ \text{John's lips, in its entirety, bears the GR}_{2} \text{ to the clause. Filling out the network with the next level, we get (10a).} \]

The possessor ascends, and takes on the relation \text{GR}_{2} at a non-initial level, relegating \text{lips} to chomeur-hood.

Notice that this is not an ascension in the same sense as object-raising is. However, \text{John} is initially an argument on a lower-than-clause level, and ends up as an argument on the clause level at some non-initial level. In this sense, this operation conforms to the configuration stated for ascensions, and should obey the same laws.

The No-Chomeur-Marking strategy of PA should demonstrate this conformity to ascension laws adequately. In this strategy,
exhibited in data from four languages, three manifestations of the rule occur:
1. Poss-NP; ascends
2. NP; becomes a chômeur
3. Chômeur retains initial term-marker

Kala Lagau Langgus (data from Roberts (1978: 86-88))

Kala Lagau Langgus, sometimes referred to as Mabuyag, is an ergative language from the Western Torres Strait area. Word order is fairly unrestricted, and GRs are case-marked. Sentences (11a) and (11b) exhibit an instance of PA.

(11)(a) Ipkasin mabayag suwu pudan
       1/ERG poss/GEN 2/NOM V
       woman man arm pull off
       The woman pulled the man's arm off.

(11)(b) Ipkasin mabayag suwu pudan
       1/ERG 2/NOM 2/NOM V
       The woman pull off the man, the arm (lit.)

Kala Lagau Langgus marks subjects of transitive sentences in the ERGative case, and direct objects in the NOMinative case. Possessives are marked GENitive. Sentences (11a) and (11b), which mean the same thing, exhibit a change in case-marking. The possessor in (11a), marked GEN, takes on the case marking NOM. If it were true that the possessor has usurped 2-hood, this is exactly what we would expect.

Now notice that sentence (11a) cannot "scramble" to sentence (11c), but sentence (11b) can, to sentence (11d).

(11)(c) *Ipkasin mabayag pudan suwu
       1/ERG 2/NOM V 2/NOM

(11)(d) Ipkasin mabayag pudan suwu
       1/ERG 2/NOM V 2/NOM

Since, in this language, nominals can be scrambled, but parts of nominals cannot, one explanation could be that the possessor in sentence (11a) has ascended to 2, become a full nominal, and then is eligible for scrambling, as exhibited by sentence (11d). Sentences (11) show a poss-2 ascending to 2. There are also data which exhibit a possessor-of-1 ascending to 1.

(12)(a) Ipkasin ngaran garaka palan
       poss/GEN 1/ERG 2/NOM V
       woman foot boy kick
       The woman's foot kicked the boy.

(12)(b) Ipkasin ngaran garaka palan
       1/ERG 2/ERG 2/NOM V
       The woman kicked the boy with the foot.

The facts in sentence (12) are analogous to those in (11). The old possessor has acquired subject marking (ERG), and is now eligible for scrambling.

Notice that possessors of 1s ascend to become 1s, and possessors of 2s ascend to become 2s. This is in accordance with the Relational Succession Law, (13), which has been postulated to constrain possible rules of ascension.

(13) An ascendeo assumes the GR of the host (Frantz 1977: 56).
The host is the linguistic element to which the ascendeo bears a relation before it ascends. Also, since only 1s and 2s can serve as hosts for PA in Kala Lagau Langgus, it conforms to the Host Limitation Law, (14).
(14) Only nuclear terms (1 and 2) can serve as hosts for ascensions (ibid).

In all, we have three arguments that PA is a rule in Kala Lagau Langgus. First, the case marking changes, and second, the new term is eligible for scrambling. Since these are properties of nominals that bear GRs, these are strong arguments to indicate that PA has occurred. Third, PA in Kala Lagau Langgus obeys relational laws which hold for other natural languages. There is a slight weakness in that I have not been able to show that the old term has the properties of a chomeur. That is, that it is ineligible to participate in rules which refer to GRs. Unfortunately, I have no data to show this.

Cebuano (data from Bell (1976: 121-127))

Cebuano is another Philippine language, the subject of Sarah Bell's thesis. In her thesis, she argued that PA was exhibited in the following sentences.3

(15)(a) Nagkadugo' ang mga ba'ba' ea sakup ni Iyo' Bruno
      V NOM pl 1 GEN poss GEN
      be bloody mouths group Iyo Bruno
Iyo Bruno's group's mouths were bloody.

(15)(b) ang sakup ni Iyo' Bruno nagkadugo' ang mga ba'ba'
      NOM 1 GEN V NOM pl ?
      group be bloody mouths
Iyo Bruno's group, mouths were bloody.

In sentence (15b), a nominal which bears GENitive marking in (15a) appears in the topic position marked as a NOMinative. NOMinative is the marking of subjects in Cebuano. The subject in (15a), mga ba'ba', retains its old case marking, and its position in the word order of the sentence.

One could make a case that there is a rule "possessor ascends to topic (not a term)" in Cebuano, based on (15a) and (15b). However, Cebuano can only relativize onto subject position. Sentence (15c) shows that an ascended possessor such as that exhibited in (15b) can be relativized on.

(15)(c) ea sakup ni Iyo' Bruno nga nagkadugo' ang mga ba'ba'
      OBL GEN LN V NOM pl ?
      of group of whose be bloody mouths
... of Iyo Bruno's group, whose mouths were bloody
In sentence (15c), the new subject has been relativized on.

However, Bell shows, the old subject cannot, as in (15d).

(15)(d) "Nakakita' siya ea mga ba'ba' nga ang sakup
      V 1 OBL pl 2 LN NOM 1
      ACT-see he-NOM mouths group
He saw the mouths which Iyo Bruno's group, (theirs)
      ni Iyo' Bruno nagkadugo'
      GEN V
      be bloody

If relativizability were a property of topics and subjects, (15d) would be predicted to be grammatical. A possible explanation is that the subject left behind after PA is no longer a subject, and its non-relativizability falls out naturally.

3 Some of this data comes from Wolff (1987: 348).
Cebuano also has a rule of subject ascension. In order for something to ascend by this rule, it has to be a subject (Bell 1976: 116). Sentence (15e) shows that an ascended possessor of a subject in a lower clause can ascend once again.

(15)(e) Ang baka gi'ingon sa bahaye kag Fred nga giputlan
    NOM 1 V GEN 2 OBL 3 that V
cow told by woman to Fred cut off

ang sungay
NOM
horns
(i.e. It was told to Fred by the woman that the cow's horns were cut off.)

Ang baka, which starts out as the possessor of the subject of the lower clause, is now the subject of the upper clause. This cannot occur if the possessor has not ascended to the 'topic' position. As well, the old subject cannot ascend to subjecthood of the higher sentence.

(15)(f) Ang sungay gi'ingon niya kag Fred nga ang baka giputlan
    NOM horn tell he-GEN OBL LN NOM cow cut off
The horns, it was told to Fred by him that the cow, they were cut off.

The PA analysis provides a natural explanation for these facts. Since the old possessor has taken on subjecthood, it can be relativized on and ascend to subject. Since the old subject is no longer a subject, but a subject chomeur, it cannot be relativized on or ascend to subject.

Since PA in Cebuano only allows possessors of 1s to ascend to 1, it obeys the Relational Succession Law. Since only 1s are eligible to act as host, it obeys the Host Limitation Law. We have case-marking arguments similar to those employed in the Kala Lagaw Langgus case, and the relativization and subject ascension arguments, which also show that the initial subject is a chomeur. There are, however, a pair of language-specific conditions on the application of PA. First, only subjects can act as host, and second, the ascended possessor must be linearised in the topic position. The position restriction is not uncommon. The Mandarin data below will exhibit a similar one. In any case, the arguments for PA in Cebuano appear very strong.

Mandarin

Mandarin is a language which makes it a bit difficult to pick out the GRs. There are no case markings which correspond to terms, nor are there any verb inflections. Virtually the only way to distinguish the terms (especially the nuclear ones) is through word order. The most basic word order in Mandarin is exemplified by (16).

(18) 1 (OBL) V 3 2 (OBL)

Obliques are marked by preposition-like elements, and sometimes 3 can be marked, by gei, in both positions. The GRs that concern us here, however, 1 and 2, are unmarked in this word order. The only way we can tell a 1 from a 2 is by position with respect to V. The argument for PA revolves around what is referred to in the literature as the 'ba-construction', 'complex object fronting', or 'the disposal construction'. Sentences (17a) and (17b) exemplify this construction.
(17)(a) fuqin dale erzi  (from Cummins 1976: 16)
    1   V  2
    father beat son
    The father beat the son.

(17)(b) fuqin ba erzi dale
    1   ?   V
    The father beat the son.

Cummins (1976) and Postal (1977) argue that the ba-construction is an instance of spontaneous demotion and detransitivization, respectively. Cummins' argument depends crucially on the position of ba-NP in the sentence, which corresponds to the position of a passivized initial subject (1-chomeur), and the fact that it is marked with a preposition-like element (as are obliques and 1-chomeurs). Postal's argument depends on argumentation in Pullum and Harlow (1975), with which I am unfamiliar, but which the data to follow falsify. I have argued elsewhere (Robinson 1978), and Mercier (1978) has argued similarly, that the ba-construction is neither of these. Rather, the ba-construction is a linearisation rule which moves some nominal from the right of the verb to the left. It does not refer to GRs, but word order alone. For instance, many analyses of the ba-construction assert that it applies only to direct objects. That this is not the case can be easily shown.

(18)(a) Ta wenle wo xuduo wentsi  (Cummins 1976: 21)
    1   V  3  2
    He asked me many questions.

(18)(b) Ta ba wo wenle xuduo wentsi
    1   V  2
    He asked me many questions.

(19)(a) Wo daole shui mai huaping-li  (Mercier, personal communication)
    1   V  2   LOC
    I poured water in vase-in
    I poured water in the vase.

(19)(b) Wo ba huaping daole shui
    1   V  2
    I poured water in the vase.

Sentences (18a) and (18b) show that an indirect object can be moved by the ba-construction rule, and (19a) and (19b) show that a LOCative can be moved. Sentences like these, and the preference for the operation when the sentence is heavy to the right of the verb, indicate that the ba-construction is a rule that linearises nominals functionally with no reference to GRs whatsoever.

Assuming this to be the case, I can begin the argument for PA in Mandarin. Sentences (20a) and (20b) show the normal application of ba-construction to a possessed direct object, while (20c) is the sentence which is crucial to the case.

(20)(a) Mali du duanle Yuehan-de tui
    1   V  2
    Mary broke John-poss leg
    Mary broke John's leg.

(20)(b) Mali ba Yuehan-de tui du duanle
    1  poss-2  3   V
    Mary broke John's leg.
(20)(c) Mali ba Yuehan daduanle tui
1 2
Mary John broke leg
Mary broke John’s leg.

In sentence (20c), the possessor has been moved away from the
possessed object by ba-fronting. If we were to analyze this
as part of a nominal being separated from the nominal to which
it bears a relation, this would be the only case in Mandarin
where such movement could occur. On the other hand, if we
analyze it as an application of PA-to-2, then the eligibility
of Yuehan for ba-fronting falls out naturally, as it is now a
full nominal in its own right.

Further evidence exists with regard to passivization. If,
in (20c), Yuehan is now a 2, it should be eligible for passive.
Sentence (20d) shows that this is the case.

(20)(d) Yuehan bei Mali daduanle tui
1 2
John by Mary broke leg
John was by Mary broken the leg (lit).

If, on the other hand, tui is a chomeur in (20c), it should
not be eligible for passivization. Sentence (20e) shows this
to be the case.

(20)(e) *Tui bei Mali (ba Yuehan) daduanle (Yuehan)
1
leg by Mary broke
Leg by Mary was broken John.

It doesn’t matter whether Yuehan appears in the ba-slot, or
the direct object slot, sentence (20e) is still ungrammatical.
It would appear, then, that PA has occurred, and tui is a
chomeur.

The rule of subject-to-object raising provides further
evidence. Sentences (21a) and (21b) show the operation of this
rule.

(21)(a) [Wo qiangbole [Mao Zhuxi shaxile ni]]
1 V 1' V' 2'
I forced Ch. Mao kill you
I forced Chairman Mao to kill you.

(21)(b) Mao Zhuxi bei wo qiangbole shaxile ni
1 by V V' 2'
Chairman Mao was forced by me to kill you.

Sentence (21b) shows that Mao Zhuxi has been raised from its
position in sentence (21a) to direct objecthood, whence it can
be passivized. On the other hand, ni in (21a) cannot undergo
this operation.

(21)(a) *Wo qiangbole ni Mao Zhuxi shaxile
1 V 2. 1' V'
I force you Ch. Mao kill
I forced you for Chairman Mao to kill (lit.).

However, if on another level in the lower sentence, ni assumes
subjecthood, it becomes eligible for subject-to-object raising
and passivization. Sentences (21d) and (21e) show this.

(21)(d) Wo qiangbole [ni bei Mao Zhuxi shaxile]
1 V 1' V'
I force you by Ch. Mao kill
I forced you to be killed by Chairman Mao.
The same rules can apply when we have a sentence with sentence (20a) in the lower sentence. Sentences (22a) to (22d) show this.

(22)(a) Wo qiangbole [Mali dadwanle Yuehan-de tui]
1 V 1' V' poss-2' 2'
I force Mary break John's leg.
I forced Mary to break John's leg.

(22)(b) Wo qiangbole [Mali ba Yuehan dadwanle tui]
1 V 1' 2' V' 2'

(22)(c) Wo qiangbole [Yuehan bei Mali dadwanle tui]
1 V 1' V' 2'

(22)(d) Yuehan bei wo qiangbole bei Mali dadwanle tui
1 V 1' V' 2'
John by me force by Mary break leg
John was forced by me to have his leg broken by Mary.

Since at the level of (22b) tui cannot become a subject, it is also not eligible for subject-to-object raising.

(22)(e) *tui bei wo qiangbole bei Mali (ba Yuehan) dadwanle (Yuehan)
Leg was forced by me to have John broken by Mary (lit.).

I have argued that PA-to-2 is a rule in Mandarin, showing that this operation makes 2s out of poss-2s. The new 2s are linearised in a position where 2 can occur, and are eligible for passivization and subject-to-object raising. There are, then, at least three strong arguments for PA in Mandarin.

Remember, however, that this argument rests crucially on the assumption that ba-construction does not refer to GRs. There is one last piece of evidence to indicate that this is correct. If we start at the level of (20d), we can apply ba-construction to what I have shown is a 2-chomeur.

(20)(d) Yuehan bei Mali dadwanle tui
1 V 2' V
John by Mary break leg
John had his leg broken by Mary.

(20)(f) ?Yuehan bei Mali ba tui dadwanle
1 2' V
John had his leg broken by Mary.

Sentence (20f), although ungrammatical for some Mandarin speakers (Cummins 1976), is immediately accepted by others (my own informants). Since tui in (20d) is not eligible for passivization (sentence (20e)), which no one has argued is not a relation-changing rule, but is eligible for ba-construction, I have additional evidence that ba-construction is not a relational rule. My crucial assumption, and the analysis that followed, rest on ground that much firmer.

Further, the data presented provides evidence against the centrality of the Relational Hierarchy in RG. If the RH were to hold, the prediction would be that PA should apply to subjects, since it is a relation-changing rule and it applies to direct objects. However, to the best of my knowledge, such data do not exist. PA in Mandarin does obey the Relational Succession Law, though, as possess-2s go to 2s, and the Host Limitation Law, since only 2s can serve as hosts for PA.
Southern Tiwa (data from Frantz (1979))

Southern Tiwa is an Amerindian language of New Mexico. I do not have much data, but Frantz has argued (1979) that PA exists in Tiwa with the following example, which has the RN in (23a).

(23) in-'u -chiapiaw-m
ls:3is-child-sleep -pres
My child is asleep.

A number of facts about Southern Tiwa argue for PA's having applied. First, the prefix in- on the verb in (23) is a prefix which is used elsewhere in the language to agree with the presence of an initial third person singular absolutive (subject of intransitive sentence) and a first person singular final subject. In order for in- to appear here, something has to be a subject elsewhere than on the initial level. The initial absolutive 'u ('child') fulfills the first requirement. The only thing left for final subject is the postulated first person singular possessive in (23a).

Second, elsewhere in the language there is a constraint against final animate subjects being incorporated into the verb. Since 'u ('child') has been incorporated, this argues against its being a final subject. Third, final absolutive chomeurs must be incorporated. This corresponds with the postulation that 'u is a chomeur.

Fourth, similar sentences with dual and plural possessives use prefixes that agree elsewhere in the language with dual and plural final subjects respectively, and third person singular animate initial absolutes.

(24) kim-'u -chiapiaw-m
1d:3is-child-sleep -pres
Our (2 of us) child is asleep.

(25) ki-'u -chiapiaw-m
1p:3is-child-sleep -pres
Our (more than 2 of us) child is asleep.

Sentences where 'u is the final subject as well as the initial absolutive utilize a prefix which agrees only with final subjects. They also lack incorporation.

(26) 'ummin in-chiapiaw-m
children 3d-sleep -pres
The children (2) are asleep.
(27) 'ummin i-chiaplaw-m
children 3p-sleep -pres
The children (more than 2) are asleep.

It appears, then, that there are strong arguments for postulating a rule of PA in Southern Tiwa. The alternative is to add a lot of ad hoc agreement and incorporation exceptions to the grammar to cover the cases which one rule of PA could describe. Not too much further can be said, however, due to the paucity of the data I have available.

I have argued for the existence of a rule of PA in four rather disparate languages, specifically the No-Chomeur-Marking Strategy of PA. The rule can be stated as (28).

(28) Possessor ascends

The same rule applies in all four languages, and other universal principles and language-specific side effects will provide the rest. For instance, none of the chomeurs created in these languages seem to be marked in any other way than they were as terms (case markings in Kala Lagau Langgus and Cebuano, linearisation in Mandarin), except that the 1-chomeur in Southern Tiwa must be incorporated (not an identifier of terms, apparently). This corresponds with the Chomeur-Marking Principle, (29). 4

(29) If a rule does not specify the marking of the chomeur it creates, an n-chomeur undergoes the same marking as an n.
(Bell 1976: 29).

The other requirement of the language-specific component of application of PA is the targeting of hosts. The Host Limitation Law specifies that the possibilities include only 1, 2, or both as hosts, and languages pick the combination individually.

THE LOCATIVE STRATEGY

The second strategy of PA, which is found rather more often in the literature than the first, is the Locative Strategy. In fact, linguists have often used sentences like (1) and (2) above, examples from English, to exemplify PA. Commonly, they have then gone on to argue for other strategies which behave rather differently from the English examples. English uses the Locative Strategy. I intend to argue that the Locative Strategy does not belong in the same class of syntactic operation as the Cebuano, etc. examples above, and furthermore, that there are strong arguments for disallowing a rule of PA that exhibits such a strategy. However, it appears that PA does exist in English in a different form, which I will discuss later in this section.

The Locative Strategy is a popular one cross-linguistically. Typically, if it is allowed, it must involve the following three steps:

(a) Poss-NP, ascends
(b) NP, appears in chomeur position
(c) NP, marked as LOCative

4This appears as the Chomeur-Marking Law in Bell (1976), but as the "Principle" in Prants (1977). Glynn Figgot and David Perlmutter have informed me (personal communication) that since it makes no empirical claim, "principle" is the correct term.
Once again, the Relational Succession Law stipulates the termhood of the old possessor. The Chomeur Law explains (b), but since this law is in theoretical trouble (cf. fn. 2), I will include step (b) as necessary here. Since the marking on the chomeur is stipulated by a language-specific rule, the Chomeur-Marking Principle does not apply. This marks the major divergence from the No-Chomeur-Marking Strategy above.

I will repeat sentences (1) and (2) for convenience, as they show the Locative Strategy in operation quite admirably.

(1) Mary kissed John’s lips.
(2) Mary kissed John on the lips.

In sentence (1), John’s lips bears the GR2 to the clause. The claim is that John in sentence (2) bears the GR2 on a different level, related to the initial level by rule (see (10a) for the RN). A side-effect of the rule is that the chomeur created by the aforementioned rule is marked in the same way as a locative. I will return to this shortly.

As mentioned previously, this strategy of PA appears quite popular, as exhibited by examples (30) to (33).

Dutch (Beattie 1976: 25)

\[(30)(a) \text{ Een hond heeft (het been van Jan) gebeten} \]
\[\text{ 1 aux 2 poss-2} V \]
\[\text{ A dog has the leg of Jan bitten} \]
\[\text{ A dog has bitten Jan’s leg.} \]

\[(30)(b) \text{ Een hond heeft Jan (in het been) gebeten} \]
\[\text{ 1 aux 2} \text{ V} \]
\[\text{ A dog has Jan in the leg bitten} \]
\[\text{ A dog has bitten Jan in the leg.} \]

\[(30)(c) \text{ Jan werd (in het been) gebeten} \]
\[\text{ 1 aux} \text{ chomeur} V \]
\[\text{ Jan was bitten in the leg.} \]

In sentence (30b), Jan has ascended from its position in sentence (30a), that of poss-2, to become 2. The old 2, het been, is now marked with a common Dutch locative preposition. Sentence (30c) shows that the new 2 has the properties of a 2, in that it can be passivized. There is a restriction, though, in that (30a) is not grammatical as a surface utterance. In this case, we would have to say that PA is obligatory.

Nsoq (Grebe 1976: 53)

\[(31)(a) \text{ Wiik gooy (kitu ke wan voe)} \]
\[\text{ 1 V 2 poss-2} \]
\[\text{ woman raps head of her child} \]
\[\text{ The woman raps the head of her child.} \]

\[(31)(b) \text{ Wiik gooy wan voe fo kitu} \]
\[\text{ 1 V 2 LOC} \]
\[\text{ The woman raps her child on(?)} \text{ the head.} \]

This example is straightforward, and is so similar to sentences (1) and (2) that I will not go into redundant explanations. The same is true of the following examples from French and Italian.

5. The (?) is mine. Grebe does not translate, but this gloss seems likely to be close.
French

(32)(a) Marie a touché le bras de Pierre
1 V 2 poss-2
Marie touched the arm of Pierre
Marie touched Pierre's arm.

(32)(b) Marie a touché Pierre sur le bras
1 V 2 LOC 2
Marie touched Pierre on the arm.

(32)(c) Pierre a été touché par Marie sur le bras
1 V by 2
Pierre was touched by Marie on the arm.

Italian

(33)(a) Giorgio ha toccato il braccio di Maria
1 V 2 poss-2
Giorgio touched the arm of Maria
Giorgio touched Maria's arm.

(33)(b) Giorgio ha toccato Maria sul braccio
1 V 2 LOC 2
Giorgio touched Maria on the arm
Giorgio touched Maria on the arm.

(33)(c) Maria è stata toccata da Giorgio sul braccio
1 V by 2
Maria was touched by Giorgio on the arm.

Sentences (32c) and (33c) show that the new 2 is eligible for advancement to 1 on another level. This eligibility for passive is a strong argument that the old poss-2 is in fact a 2 on another level.

It is interesting to note, however, that although the Locative Strategy is a common one, it is by no means universal. Sentences (34) show that PA cannot apply using the Locative Strategy in Mandarin.

Mandarin

(34)(a) Mali tile Yuehan-de tui
1 V poss-2 2
Mary kicked John-poss leg
Mary kicked John's leg.

(34)(b) *Mali xai tui tile Yuehan
1 in 2 V 2
Mary kicked John in the leg.

Problems arise immediately if we are to accept the Locative Strategy as a possible rule of PA. The question arises as to the status of the old 2 in all these sentences. If PA has applied, it should now be a chomeur, and not be eligible for further relation-changing rules. Sentences (35) show that after PA in English, further relation-changing rules of passivization and raising can take place with the new 2 as target. Sentences (36) show that passivization cannot take place on the old 2.
(35)(a) Everyone believes [Joe touched Mary’s arm]
(b) [Joe touched Mary on the arm]
(a) [Mary was touched by Joe on the arm]
(d) Everyone believes Mary to have been touched by Joe on the arm.
(e) Mary is believed by everyone to have been touched by Joe on the arm.

(36)(a) *On the arm was touched Mary by Joe
(b) *The arm was touched Mary on by Joe

However, the fact that the old 2 is marked with what is ordinarily a locative marker in English compels us to show that it is not a locative. The only test for locativity that I know of is substitutability for where. Sentences (37) show that the old 2 passes this test.

(37)(a) Where was Mary touched?
(b) On the arm.

Other chomeurs, like a 1-chomeur created by passivization, and the 2-chomeur created by dative, fail this test. In fact, an adequate grammatical question cannot be formed.

(38)(a) *By where was Mary touched?
(b) By Joe.

(39)(a) *Where was a kiss given by Joe?
(b) Mary.

If we are to maintain that the old 2 is a chomeur, we must explain why chomeurs created by PA pass the locative test. We could do this by separating these chomeurs from chomeurs created by other rules, in effect allowing a special condition for them.

On the other hand, if the old 2 is in fact a locative, we have a natural explanation for why it passes the locative test. Also, the fact that the old 2 cannot be passivized falls out naturally, as locatives do not normally advance to 1 in English.

Suppose we accept these arguments that the old 2 is a locative. We put ourselves in the position of asserting that the rule of PA creates locatives instead of chomeurs. This will require the jettisoning of the Oblique Law, (7), repeated here.

(7) If A is an oblique arc, A is a C₁ arc.

Since the rule of PA would require the creation of an Oblique arc on other than an initial level, this law would have to be assumed to be either inoperative in English, or not a universal law at all. However, the Oblique Law is a well-justified law, and we should be very careful about accepting analyses which contradict it. If we do, we abandon one of the major tenets of RG, that Oblique arcs bear semantic information, and that syntactic rules do not create semantic information.

In order to save the rule of PA for these data, then, without requiring the modification of very basic assumptions about RG, we will have to abandon the notion that PA creates locatives. We must accept the notion advanced before that the chomeurs PA creates are different from other chomeurs. This does

6 Except for the well-known marginal sentences like the closet was slipped into by the soap, which I don’t believe cause any trouble here.
not seem like such a radical move. However, we are left with the problem of specifying the markings for PA-chomeurs. Sentences (40) to (44) show that this is not a trivial problem.

(40) (a) John kicked Mary's leg.
(b) John kicked Mary in(on) the leg.

(41) (a) John kissed Mary's leg.
(b) John kissed Mary on the leg.

(42) (a) John grabbed Mary's leg.
(b) John grabbed Mary by the leg.

(43) (a) John hit Mary's head.
(b) John hit Mary on(over) the head.

(44) (a) John hit Mary's face.
(b) John hit Mary in(about) the face.

Sentences (40) to (44) show that in some cases there is some choice involved in the selection of a chomeur-marker ((40) and (43)), and that the choice is restricted in others ((41) and (42)). Also, the meaning can be different with different choices, as in (44). In order for about to appear, Mary must be hit more than once. In can appear no matter how many times Mary is hit. There also seems to be a non-trivial relationship between the verb which holds the GR to the clause, and the chomeur-marker used. For instance, grab and pick up take by, while hit and kick cannot. If PA is to be a rule in English, it will require a very complicated chomeur-marking component.

Two types of chomeur-marking rules have been discussed in the literature I am familiar with. The first is the Chomeur-Marking Principle (29), discussed in the section on the No-Chomeur-Marking Strategy. This is obviously inapplicable here. The second is discussed in Harris (1977). In Georgian, chomeurs are marked according to the term relation they bear on the initial level. Therefore, a 2 which is promoted to 1 and then made a chomeur is marked as a 2-chomeur. We cannot apply this principle here, either, as 2-chomeurs created by PA are marked differently from other 2-chomeurs. The only apparent way to mark PA-chomeurs which satisfies all the requirements here is to allow PA to make use of semantic information contained not in any arcs, but in the linguistic elements themselves. This requires an enormous extension of the power allowed to relation-changing rules, which heretofore in RG have not been allowed to refer to such semantic information.

Even if we allow this extension of the theory, another well-justified law of RG will be vitiated by counter-examples. Sentences (45) show PA which occurs with an indirect object, and (46) with a locative.7

(45) (a) Mary gave a shot to John's arm.
(b) Mary gave a shot to John in the arm.

(46) (a) John jumped in the middle of the car.
(b) John jumped in the car in the middle.

7 These examples may be somewhat specific to my dialect.
The Host Limitation Law, which prohibits any nominals other than those bearing GR₁ or GR₂ from acting as host for ascensions, would have to be modified, either specifically for English, or universally.

I have argued that allowing a rule of PA in English, and presumably for the other languages cited, under the Locative Strategy, presents extensive problems for RG theory, at least for the data given. On the one hand, RG theory must account for all the data from all natural languages. If data from natural languages force analyses which run counter to postulated RG principles, then RG theory must be modified to allow these analyses. However, there is no a priori reason to assume that the analysis of PA in English, as presented so far, is a forced one. There may be simpler analyses which account for the data, but do not violate RG principles.

The first such possible analysis is to postulate that the forms with possessors (the (a) sentences of this section) do not constitute the initial level of the RN. Rather, the form with the locative does. We could then postulate rule (47).

\[(47) \text{LOC} \rightarrow \text{GR}_x \text{ (x = 1, 2, 3, LOC)}\]

Although this rule would be applicable only to a certain class of locatives, it would resolve all the objections encountered so far. The locative test will fall out naturally. The passivizability of the initial 2 would be explained. The Host Limitation Law would not apply, as this would not be an ascension, but an advancement. A chomeur-marker would not need to be chosen, as the locative marker would disappear, while the new possessor would be marked with 's. The rule could specify this marker as a language-specific side effect.

However, despite its explanatory value, it should be obvious that we would be postulating a rule quite unlike any other rule postulated thus far for RG. It would entail, as one of its components, a rule of "descent". A nominal which bears a GR at clause level would descend to bear GR at a lower-than-clause poss level. This rule, if accepted, would require a reworking of RG theory to allow it. I will return to sentences (1) and (2).

(2) Mary kissed John on the lips.
(1) Mary kissed John's lips.

The locative lips in sentence (2) would advance to 2. John, the 2 in sentence (2), descends to poss-2, marked by 's. Elsewhere in RG theory, when a term has had its termhood usurped, it becomes a chomeur. We could specify that descent rules create a special sort of chomeur, that is, a possessor, which might be acceptable, if the only descent rules which are allowed are those which create possessors (or genitives, as in sentence (46a)). However, we still have two problems. First, we must separate the locatives which undergo (47) from those that don't. Second, we must explain sentences (48).

\[(48) (a) \text{Mary has a hole in her pocket.} \\
(b) \text{Mary's pocket has a hole (in it).}\]

What is to explain the reason for pocket advancing to 1 in this case, rather than 2? Presumably, the semantic information
necessary to specify which locatives are available for (47) would specify the necessary semantic type of nominal it can advance to take the termhood of. Even this is not enough, however. Consider sentences (49).

(49)(a) Mary hit Jim in the arm.
(b) Mary hit Jim's arm.
(c) *Mary's arm hit Jim.

Although both Mary and Jim are capable of possessing arms, only Jim can act as target for advancement, without changing the meaning of the sentence.

Although an analysis which includes rule (47) shows some promise, it seems deficient in a few ways. Fortunately, a much simpler solution can be postulated. It is intriguing that a very special type of relationship holds in all the examples in the data covered. That is, the locatives I have been relating to possessors are all part-of-the-whole. This part-of-the-whole relationship must be stretched a little to apply to sentence (48), but articles of clothing seem to count in English, as further exemplified by sentences (50).

(50)(a) John grabbed Mary's coat. (L. Morey, personal communication)
(b) John grabbed Mary by the coat.

It is also not necessary for the part-of-the-whole to relate to a person, or person's body, as shown by sentences (51).

(51)(a) John tapped the ear's fender.
(b) John tapped the car on the fender.

Interestingly, the example from Southern Tiwa in the preceding section does not exhibit this relationship, unless the people that speak this language consider their children to be part of themselves. Also, there are data from Mandarin which show that PA does not apply to such a semantically constrained relationship, for instance, sentences (52).

(52)(a) Wo nonghongle Lao Wang-de qiche
I made red Old Wang's car red.
(b) Wo ba Lao Wang nonghongle qiche
I painted Old Wang's car red.

The only constraint on PA in Mandarin seems to be that it cannot occur when 3 is present, which is a syntactic, not a semantic, constraint.

(53)(a) Lao Zhang maigeile Lao Wang Lao Ma-de qiche
Old Jang sold Old Wang Old Ma's car.
(b) *Lao Zhang ba Lao Ma maigeile Lao Wang qiche

In addition, there would be a constraint against the operation of PA in English when the part-of-the-whole is not

8 Or, perhaps better, a functional syntactic constraint, as PA here would obscure the interpretation of who was the actual possessor of the car. Obviously, there is also a constraint that PA cannot apply when the ba-construction is not possible (Cummins 1978).
attached to the whole. Thus, sentence (54b) implies that the arm is attached to Mary.9

(54)(a) John picked up Mary's arm.
(b) John picked up Mary by the arm.

Sentence (54a), however, can be uttered even if Mary's arm has been severed from Mary. The same is apparently true for Nsoq.

Nsoq (Grebe 1976: 53)

(55)(a) *(ngaa juim) shoq (kitu ke kitam)
1 V 2 poss-2
  hunter out-ff  head of elephant
The hunter out off the head of the elephant.

(55)(b) *(ngaa juim) shoq (kitu) (fo kitam)
1 V 2 LOC 2
  hunter out-ff  head  elephant
The hunter out off the head, the elephant (my gloss)

If we accept the analysis which includes PA, there must be further constraints added to application of the rule. Under the LOC-advancement formulation, there is no way to state one meaning of (54a) at the initial level. Under the assumption that the semantic content of the clause is exhaustively included at the initial level, and that relation-changing rules do not add semantic information, this analysis is then not allowable.

I wish to suggest that the ambiguities I have been dealing with here are not caused by application of syntactic rules at all, but rather that they are semantic ambiguities. That is, the simplest way to describe all the (a) and (b) sentences of this section is to postulate that they each have separate RNs, one containing a locative, and one containing a possessor. The RNs are not related by syntactic rules, but by semantic rules. In other words, there seems to be a cross-linguistic tendency to be able to refer to a "part-of-the-whole" as either a "part possessed by the whole", or a "location on the whole". This solves all the syntactic and semantic problems with the Locative Strategy that I have discussed. A part severed from the whole is no longer located on the whole, and cannot be referred to in such a manner. Possessors, as is well known by linguists, express many relationships other than part-of-the-whole, and so the fact that a severed arm can still be referred to as belonging to the person involved is not a problem.

This solution adds very little in the way of complication to RG theory, and requires no adjustment of RG syntactic laws and conditions. All that is necessary is a very simple semantic redundancy rule. It does not even vitiate the "fairly straightforward principles for assigning (initial) grammatical relations on the basis of semantic notions" alluded to on page three. They will still be "fairly straightforward", even with some redundancies involved. It may seem that I am getting rid of a fairly difficult problem by consigning it to the semantics,

9Guy Browning (personal communication) was the first to point this out to me.
but a rule which exhibits so many semantic peculiarities probably doesn't belong in the syntactic component.

Therefore, I conclude that many examples of what relational grammarians have cited as instances of the application of PA are not due to PA at all, but to a rather simple semantic ambiguity. This only applies to the Locative Strategy. The examples of PA given in the section on the No-Chomineur-Marking Strategy are syntactic rules, which exhibit syntactic effects, and obey RG syntactic laws and principles.

Notice that this does not constitute a conclusion that PA does not exist as a rule in English. In fact, there is a small class of sentences in English for which an analysis including PA (or perhaps Genitive Ascension (GA), which I will call it for the rest of this section) looks promising. These are exemplified by sentences (56) to (64).

(58)(a) The frequency of absenteeism increased.
  (b) Absenteeism increased in frequency.

(57)(a) The price of rice went up.
  (b) Rice went up in price.

(58)(a) Pleasant working conditions have reduced the number of alcoholics.
  (b) Pleasant working conditions have reduced alcoholics in number.

(59)(a) Ralph's lying through his teeth opened up a whole new can of worms.
  (b) Ralph opened up a whole new can of worms with (his) lying through his teeth.

(60)(a) The smell of the rice bothered the workers.
  (b) The rice bothered the workers with its smell.

(61)(a) The artists' creativity languished.
  (b) The artists languished in creativity.

(62)(a) The determination of the soldiers saved the city.
  (b) The soldiers saved the city with their determination.

(63)(a) The seriousness of the situation decreased.
  (b) The situation decreased in seriousness.

(64)(a) Recent events have exacerbated the gravity of the crisis.
  (b) Recent events have exacerbated the crisis in gravity.

The first thing to be said about the data presented is that the nominals involved are not part-of-the-whole nominals. Rather, they express a quality, state, or action of the lower nominal. Though the number of verbs that select this sort of nominal seems relatively small, those that do seem to allow these pairs of sentences fairly readily. The prepositions that appear in the (b) sentences are steadily with or in. In, which usually carries a locative meaning, does not seem to carry such a meaning in these sentences. One of the meanings that with usually carries is an instrumental meaning, which seems to correspond loosely with its meaning in the (b) sentences in which it appears here. However, there are some examples where the with does not seem to carry this meaning.
(65)(a) Mary's intransigence popped up often in our conversations.
(b) Mary popped up often in our conversations with her intransigence.

If we are to relate the (a) and (b) sentences with the syntactic rule of GA, we must show that the rule creates chomeurs which it marks in a certain way. Thus, the appearance of with and in must be shown to be governed syntactically. The first thing we notice about sentences (56) to (65) is that sentences (58) and (64) show GA into the GR₂ position, and mark the chomeur with in. All the others seem to exhibit GA into the GR₁ position, and are marked with either with or in, with transitive clauses exhibiting with, and intransitive clauses exhibiting in. However, there is a more revealing pattern which emerges upon closer examination.

Perlmutter (1978) advances what he calls the Unaccusative Hypothesis. Certain facts about impersonal passives in various languages seem to fall out rather nicely if we divide linguistic strata into three classes— the unaccusative, the unergative, and the transitive. Predicates can be divided into three classes according to which type of initial stratum they take. Transitive predicates are those which contain both a 1-arc and a 2-arc. Unergative predicates take a 1-arc, but no 2-arc. Unaccusative predicates take a 2-arc, but no 1-arc. According to Perlmutter's classifications (1978: 162-3), those predicates in sentences (56), (57), (61), (63), and (64) are normally unaccusative predicates, with 2-arcs on their initial levels.

Making use of the Unaccusative Hypothesis, then, we do not have to separate the transitive from the intransitive sentences to determine which chomeur-marker is used when ascension into GR₁ occurs. Thus, they undergo the same chomeur-marking that (58) and (64) undergo, that is, as a 2. So, we have three types of RN involved here.
In the (A) and (B) RNs, level C₁ corresponds to the respective (a) sentences, and C₂ to the (b) sentences. RN (C) is unaccusative, so there is no surface realisation of level C₁. Level C₂ corresponds to the (a) sentences, and level C₃ corresponds to the (b) sentences. In any case, the Unaccusative Hypothesis allows us to account for the distribution of with and in in the data I've dealt with here, and many others besides, in a very simple and elegant manner.

My case would be strengthened somewhat if I could show that GA occurs in unergative clauses, marking the chomeur with with, but this seems highly unlikely. Unergative clauses, according to Perlmutter, are those which express "willed or volitional acts" (1978: 162), and a quality, state, or action capable of willing an act strikes me as unusual if not impossible.

My argument is vitiated somewhat by examples like (66),

(66) Mary hit Jim with her arm.

in which a part-of-the-whole is also marked with a . This implies a certain overlap which strikes me as indicating, perhaps, that a semantic analysis might have some usefulness with this data as well.

Otherwise, this analysis obeys the Relational Succession Law, the Host Limitation Law, and, provided we can order GA before the rule which advances 2-arcs to 1, rather simply accounts for the data. My tentative conclusion, then, is that GA is a rule in English, but it only applies to certain relations expressed in nominal phrases, excluding part-of-the-whole relationships. The same rule formulated for the No-Chomeur-Marking
Strategy, (28) (cf. page 14), is at work here, except that English has a chommeur-marking component. Further data may show that my argument is incorrect, but in the absence of an in-depth study of nominals in RG, it seems that it shows more than a little promise.

THE INDIRECT OBJECT STRATEGY

Donald Frantz and David Perlmutter have advised me (personal communication) that there are some languages that allow PA-to-3, no matter to which nominal the possessive might bear a GR. Frantz suggested Italian (cf. example (68) below), and Perlmutter suggested Georgian. I have not been able to acquire the Georgian data, but I have found further data from Italian, and some from French, which seem to exhibit this process. It should be quite obvious that such a rule would require extensive alteration of RG laws. Following is a sample RN graphically exemplifying the PA strategy being discussed here.

\[ (67) \]

The nominal (d), which bears the GR\textsubscript{poss} to the nominal (c) at the initial level, has ascended to bear GR\textsubscript{3} to the clause at another level. The termhood of (c) is unaffected; it does not become a chommeur. Therefore, an analysis allowing such a rule would be a counter-example to two RG laws -- the Relational Succession Law (since poss-2 becomes 3, rather than 2), and the Host Limitation Law (although it would be difficult to define the "host" in such a situation). The evidence for such an analysis would have to be rather compelling.

**Italian**

\[ (83)(a) \quad \text{mise} \quad \text{la mano in mia tascia} \\
\text{1-V} \quad \text{2 poss-LOC} \quad \text{LOC} \\
\text{he-put the hand in my pocket} \]

\[ (83)(b) \quad \text{mi} \quad \text{mise} \quad \text{la mano in tascia} \\
\text{3} \quad \text{1-V} \quad \text{2 LOC} \\
\text{to-me he-put the hand in pocket} \]

\[ \text{He put his hand in my pocket.} \]

\[ cf. \text{Harris (1976)} \]
(68)(a) ho toccato mia madre
    1-V part. poss-2 2
    he has touched my mother
He touched my mother.

(69)(b) mi ha toccato la madre
    3 1-V part. 2
    to-me he has touched the mother
He touched my mother.

(70)(a) mia sorella è caduta
    poss-1 1 V part.
    my sister is fallen
My sister fell.

(70)(b) mi è caduta la sorella
    3 V part 1
    to-me is fallen the sister
My sister fell.

If PA is to relate these pairs of sentences, (68) shows a
poss-LOC-to-3 operation, (69) a poss-2-to-3 operation, and (70)
a poss-1-to-3 operation. The clitic mi serves as either a
direct object or indirect object marker in Italian. There are
two independent arguments which show that in these sentences,
mi is not a direct object.

First, in sentences (68) and (69), there are other nominals
which bear GR2. That this is the case can be shown by clitici-
sing them, as in (68c) and (69c) below.

(68)(c) me la mise in tasca
    3 2 1-V LOC
    to-me it he put in pocket
He put it in my pocket.

(69)(c) me l' ha toccato
    3 2 1-V part.
    to-me her he has touched
He touched her.

Notice also that (69c) demonstrates that the nominal which bears
GR2 at the initial level, madre, does not become a chomeur, as
it can be cliticised.

Second, the GR2 in (68) can be passivized, but mi in (68b)
cannot. Provided that mi is a 3, and not a 2, this non-passivi-
zability corresponds with the fact that, in Italian, 3s do not
passivise, and there is no native movement.

(68)(a') la mano è stata messa in mia tasca
    1 V part. part. LOC
    the hand is been put in my pocket
His hand was put in my pocket.

(68)(b') sono stato messo la mano in tasca
    1-V part. part. 2 LOC
    I am been put the hand in pocket
I was put his hand in the pocket (lit.).

11 The change in linear order is functionally preferred, but makes no
relational difference here.

12 Mi becomes mi in the presence of a clitic direct object.
These arguments provide reasonably sound evidence that the mi in the (b) sentences is, in fact, an indirect object.

French

(71)(a) il a mis la main dans ma poche
1 V part. 2 poss LOC
he has put the hand in my pocket
He put his hand in my pocket.

(71)(b) il m'a mis la main dans la poche
1 3-V part. 2 LOC
he to me-has put the hand in the pocket
He put his hand in my pocket.

(72)(a) Marie a touché son bras
1 V part. poss 2
Marie has touched his arm
Marie touched his arm.

(72)(b) Marie lui a touché le bras
1 3 V part. 2
Marie to-him has touched the arm
Marie touched his arm.

(73)(a) Mon livre est tombé
poss-1 1 V part.
My book is fallen
My book fell.

(73)(b) Le livre m'est tombé
1 3-V part.
the book to me-is fallen
My book fell.

Arguments similar to those employed for Italian can establish the 3-hood of the underlined constituents in the (b) sentences, and the non-chomeur-hood of the nominals out of which they have ascended.

There is also an example from Mashi, attributed to PA, which just might turn out to be an example of the same strategy of PA.

Mashi (Gary 1977: 130)\textsuperscript{13}

(74)(a) omukazi a-tamala oku chirhi cha Rudy
1 V LOC poss-LOC
woman she-sat on chair of Rudy
The woman sat on Rudy’s chair.

(74)(b) omukazi a-tamal-ir-a Rudy oku chirhi
1 V 3? LOC
woman she-sat-poss-ASP Rudy on chair
The woman sat on Rudy’s chair.

The crucial evidence for my educated guess that Rudy in (74b) could bear GR3 is the presence of the infix -ir-, which Gary glosses as a possessor-marker. Elsewhere in Mashi, this infix is a semantic marker which identifies the presence of a recipient

\textsuperscript{13}

The glosses are Gary’s. The GR assignments, including the “?”, are mine.
or benefactive (Gary 1977: 128), which commonly bear GR3, cross-
linguistically. The fact that Gary marks it here as an indicator of PA's having applied is not argued for.

Elsewhere in Bantu languages, this -ir- infix is common. In
Kinyarwanda, it also signals the presence of a recipient or ben-
efactive (Gary and Keenan 1977: 91-94). Although Gary and
Keenan argue extensively that Kinyarwanda does not have a GR3,
as does Gary for Mashi, Perlmutter and Postal have shown (1978:
51-74) that an analysis which assumes that Kinyarwanda does have
a GR3 is compatible with RG laws, provided that the Chomeur Law,
((6), page 4), is dropped from the theory. Gary and Keenan's
analysis causes much greater perturbation in RG theory (Perlmut-
ter and Postal 1978: 51-57). Assuming that Perlmutter and
Postal are correct, that GR3 does exist in Kinyarwanda (and, by
extension, in Mashi), there seems at least plausible evidence
that Rudy bears GR3 in (74b), taking into account the ir-marker.
This makes an analysis of PA-to-3 all the more attractive.

However, there is a problem with this analysis. Notice that
the -ir- is not present in (74a). Gary (1977: 128) and Gary and
Keenan (1977: 118) assert that the ir-marking is a semantic
marking device, not signalling the presence of any GR, but rather
that a nominal which is semantically a recipient or benefactive
is present in the clause. Therefore, if we conclude that (74b)
is a different level of the same RN as (74a), we would be, once
again, allowing a syntactic rule to create semantic information.
Clearly, this is unacceptable. The only possible conclusion to
reach, without reducing RG theory to a construct of tremendous
power, is that (74a) and (74b) are not related syntactically.
Rather, as I concluded in the section on the Locative Strategy,
they have different RNs, one with a possessor, and one with a
GR3 (or at least a recipient or benefactive).

Although the preceding argument concerning Mashi is based
on only one example, taken from a source with little elucidation
of possible complexities, it at least seems highly plausible.
Returning to the Italian examples, I intend to argue that a
similar analysis is not only more compatible with RG theory, but
with the linguistic facts as well.

It turns out that (69b) and (70b) are incompletely glossed.
That is, they could, in some instances, be translated as follows:

(69)(b) He touched the (someone else's) mother.
(70)(b) I caused my sister to fall, or
My sister fell, causing some adverse consequence for me, or
The sister fell, causing some adverse consequence for me.

In this gloss of (69b), and the third gloss for (70b), we must
provide some other source for the mi, as the possessor of la
sorella does not even enter into the picture, being unspecified.
The first and second translations of (70b) provide the clue to
the solution. In (69b) and (70b), the reason for the mi being
included as indirect object is to express the fact that the
action involved in the clause had some effect on the first person
interlocutor, represented as mi. In fact, in (69b) and (70b),
this is the preferred interpretation. Thus, they correspond
loosely to the English constructions (75) and (76).
(75) He went and touched my mother on me.
(76) My sister went and fell on me (non-LOC)

If we relate the (a) and (b) sentences of (69) and (70) by PA, we are again creating semantic information with a syntactic rule, which is unacceptable.

This construction in Italian seems fairly free, although I do not pretend to know all the details. We also get what would normally be considered benefactives in the GR₃ clitic slot.

(77) Mia sorella (mì) ha riparato la radio (per me)¹⁴
    my sister to me has repaired the radio for me
    My sister repaired the radio for me.

These data can all be fairly neatly explained if we assume that the "fairly straightforward" principles postulated to assign GRs cross-linguistically on the basis of semantic factors are a little more complex in Italian than in English. The categories "recipient", "benefactive", and "affected person" all qualify for GR₃-hood. This provides separate sources for the (a) and (b) sentences, which do not involve PA, and do not create the difficulties for RG theory which a PA analysis entails.

Example (68) is a little more difficult to explain away, since the (a) and (b) sentences are much closer in meaning to each other than is the case for (69) and (70). However, it is fairly reasonable to assume that the same sources could be involved. In (68a), the first person singular holds the GR₃poss to the nominal which bears GR₃LOC. Since parts of the body are usually left unspecified with regard to their possessors in Italian surface structure, there must be some rules to relate them according to participants in the sentence. Thus, in (78), the possessor of the direct object is the subject.

(78) mì sono lavato la mano
    I was washed the hand
    I washed my hand.

Since, in (68b), there are two participants ('he', and mì), possessors should be ambiguous, which they are.

(68)(b) mì mise la mano in tasca
    to me he-put the hand in pocket
    He put his hand in my pocket.
    He put my hand in his pocket.

The fact that the GR₃ can be the possessor of either the GR₂ or the LOC in this sentence does not require an analysis of PA, as possession is assigned by independently needed rules. So, postulating the above complexity in the GR-assigning rules accounts for the data, and does no damage to RG or to any other factors.

Notice that this analysis would not predict that, for sentences like (79), two GR₃s are present.

¹⁴ In which either constituent in parentheses is grammatical, but not both.
Giorgio mi ha dato un regalo a lei
Giorgio to me has given a present to her
Giorgio gave her a present for me.

Rather, the "benefactive" has been assigned GR3, and "recipient" remains an oblique object. The situation could just as easily be reversed, in which case, we get (80).

Giorgio le ha dato un regalo per me
Giorgio to her has given a present for me
Giorgio gave her a present for me.

Grammars of Italian usually consider a lei to be an indirect object in this case, although it has no syntactic consequences other than the cliticisation facts (that I am aware of). One could consider either nominal to bear GR3, or both nominals to be obliques, without doing any harm.

So, in view of these arguments, I reject the postulation that there are PA-to-3 operations in Italian and Mashi. Similar arguments are probably available for French, as (73b) also has an adversative meaning. The semantic termhood-assigning analysis adequately and more simply accounts for the ambiguities involved, and does no damage to RG laws.

I have argued that PA exists as a rule in Universal Grammar. I have shown that there are strategies of PA which conform to what have been postulated in RG theory, with much cross-linguistic justification, as universal laws of syntactic operations. I further conclude that these are the only possible kinds of strategies which should be postulated to exist in natural languages, until such a time as further data force analyses which are not compatible with these postulated laws. I have shown that there exist data which would appear, upon first examination, to involve PA, and which would violate certain laws. However, these data can be analysed more insightfully, and in a way more consistent with the facts, as not involving syntactic operations at all. The No-Chomeur-Marking Strategy, as exhibited by Cebuano, Mandarin, and others, and possibly the (Chomeur-Marking) strategy postulated for English seem to be valid syntactic operations. The Locative and Indirect Object Strategies are better treated as semantic ambiguities. The data themselves force this conclusion. The fact that these analyses do not violate RG syntactic laws is a substantial benefit, but not a rationale for such argumentation.

As I have mentioned elsewhere in this paper, RG, if it is to be considered a valid descriptive construct of universal application, must account for all the data from all natural languages. If there is one natural language which violates what is considered to be a universal law, then either the law is not universal at all, or it is in need of some modification to fit the facts. On the other hand, the laws that have been postulated as universal have been well-justified cross-linguistically. When one encounters data which appear to contradict the laws, one must consider the possibility that one's analysis of the data might be incorrect. Apparent violation of universal laws is just as often a clue pointing to the inadequacy of the analysis as a justification for modifying the theory.

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REFERENCES