

SWITCH REFERENCE AND SUBJECT RAISING IN SERI:
AN ARGUMENT FOR BOTH THE NOTION 'FIRST' SUBJECT
AND THE UNACCUSATIVE HYPOTHESIS*

Stephen A. Marlett

Facts concerning the switch reference marking system in Seri are discussed. It is shown that the notion final subject is not the appropriate notion for the switch reference marking rule. While it might appear that the notion initial subject is the necessary one, careful consideration of the facts of the subject raising construction reveals that it is not. The two phenomena together are shown to provide an argument in favor of the notion 'first' subject and the unaccusative hypothesis. Other proposed laws and universals which these facts touch on include the Chomeur Law, the Relational Succession Law, the claim that all raising is out of 2s, and the notions transitive/intransitive strata.

0. Introduction

In this paper I will discuss two phenomena in Seri which make reference to a notion of subject. The first phenomenon is a switch reference (SR) marking system that signals a change of subject between clauses of certain types (Moser 1978). The issue which is important is what notion of subject is necessary (Perlmutter (to appear a)). It will be shown that none of the notions of subject presently made available by linguistic theory is adequate. The crucial evidence to the argument for a new notion of 'first' subject comes from the subject raising construction in Seri which is discussed in section 2. The subject raising construction is discussed in detail as it is of theoretical interest in its own right, providing evidence for the notion transitive stratum and certain proposed laws of universal grammar (Perlmutter and Postal (in press a)). These facts also provide evidence for the unaccusative hypothesis (Perlmutter 1978).

1. Basic switch reference facts

Moser 1978 outlines the basic characteristics of the SR marking system. It is shown that if two adjacent clauses have different subjects, change of subject marking occurs on the first clause; if the clauses have the same subject, no marking occurs. The SR markers are ta (on irrealis clauses), and ma (on realis clauses). SR marking occurs on dependent clauses only—not on complement clauses, nominalized clauses,

(3)a. ?ap ki? toXi ma yopa?it
deer the it died SR it was eaten

'Whenever a deer died, it was eaten.'

b. SiXkam So poXtam ta tompa?o?o
fish a it will be abundant SR it wasn't seen

'Not many fish were seen.'; more literally, 'Fish was abundant, it wasn't seen.'

Nor would it account for the lack of different subject marking in sentences such as the following, in which the final subjects are different.

(4)a. ta:X popasi ?akX skami:? ?a?a
that it will be drunk somewhere one will not exist

'If that is drunk, one will die.'

b. koi Si:Xipi So tompa?it
still thing a it has not been eaten

k^wiko:pis ak i?yonke:pe
one's smoking the I don't like it

'I don't like to smoke before I eat something.';
more literally, 'While something has not yet been eaten, I don't like one's smoking.'

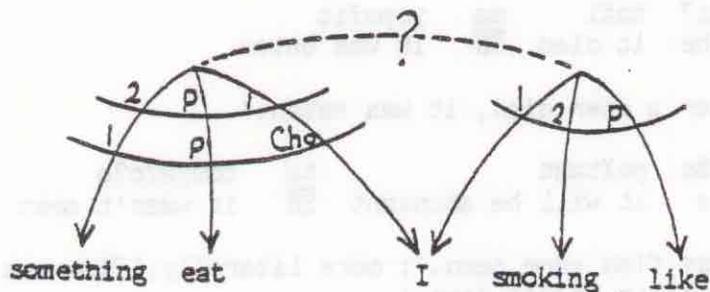
c. ?a:t ki? pa:?ka:X
torote the it will be sought

?e:pol ki? mos sa:?ka: ?a?a
ratany the also it will be sought

'When one looks for torote, one should also look for white ratany.'; more literally, 'When torote is looked for, white ratany should also be looked for.'

In Marlett (to appear) a bistratal analysis of passive clauses (which are always short—the initial subject is never expressed) in Seri is argued for. Passive clauses are marked by the suppletive prefixes /-p-/ and /-a:?-/. The arguments that these are passive clauses are based primarily on agreement facts and relativization facts. Omitting irrelevant details, sentence (4b) might be represented by the stratal diagram in (5).

(5)



The following rule is adequate for all of the examples given above.

- (6) If the initial subject of clause A is not coreferential to the initial subject of clause B, different subject marking occurs.

In a standard transformational analysis, (6) could be rephrased to make reference to the subject in deep structure. Presumably, this rule in Bresnan's framework of realistic transformational grammar (1978) could be rephrased to make reference to the logical subject in the functional structure of the verb.

In Perlmutter 1978 it is proposed that certain clauses have initial strata without a subject. While evidence in favor of this, the unaccusative hypothesis, has not been presented for Seri, it is not clear how it would interact with the SR marking rule as it is stated in (6). What does rule (6) indicate when there is no initial subject? Fortunately, evidence bearing on this question can be found since Seri has a subject raising construction. This construction is discussed in the next section, and its relevance to the SR marking rule is discussed in section 3. It will be demonstrated that rule (6) is inadequate.

2. Basic subject raising facts

Seri sentences expressing the number of occurrences of an action are biclausal in structure and involve the raising of a (copy of a) downstairs subject into the upstairs clause.² The upstairs verb, a verb of quantity, is also marked by a special prefix, glossed "X" in the examples below, which has the suppletive forms /-a:ʔ-/ and /-a:-/.³ Examples (7a-b) are simple, monoclausal sentences. Examples (8a-b) differ in that a verb indicating the number of times the event occurred has been added, resulting in biclausal sentences. The event clause comes first and is nominalized, which is typical of embedded clauses in Seri. This nominalized clause is also followed by a definite article if the main verb is /-atXo/ 'many'. The main verb is the fully inflected number verb which occurs sentence-finally.

- (7)a. *Seme kop iʔ-y-o:kta*
 sunset the I-mood-look=at

'I looked at the last light of the sun.'

b. i?p-yo-p-ašt
I-mood-PASS-tattoo

'I was tattooed.'

(8)a. šeme kop ?i-?-ə:kta ?p-y-a:-kx
sunset the my-NOM-look=at I-mood-X-two

'I looked at the last light of the sun twice.'

b. ?i-ə-p-ašt ki? ?p-y-a:-?atXo
my-NOM-PASS-tattoo the I-mood-X-many

'I was tattooed many times.', more literally,
'(In) my being tattooed, I was many (times).'

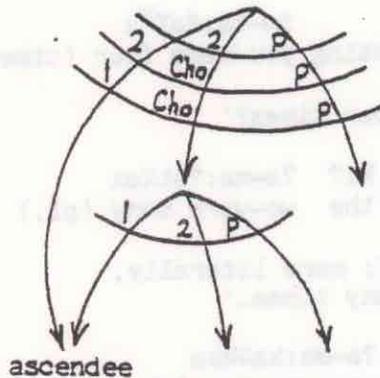
This "iteration" construction contrasts with the "extent" construction which does not involve putative subject raising nor the prefix "X", as illustrated by sentence (9).

(9) i?-y-a:spx ki? yo:-tXo
my-NOM-write the mood-many

'I wrote a lot.'; more literally, 'My writing was much.'

In this section I will argue for a particular analysis of the iteration construction within the framework of relational grammar (Perlmutter and Postal 1977, (in press a); Perlmutter (in press, to appear)). Specifically, I will argue that sentences such as (8a) have the following structure:

(10)



In section 2.1 I argue that the ascendee is the final upstairs subject. In section 2.2 I argue that the downstairs clause is not a final 2 (direct object). In section 2.3 I argue that raising is involved in these clauses and that a monostratal analysis is not to be preferred. The argument that the downstairs clause is not an initial subject upstairs is presented in section 3 and is based on switch reference marking facts.

2.1. Arguments that the downstairs subject is the final upstairs subject

Stratal diagram (10) claims that the subject of the downstairs clause is also the final subject of the upstairs clause. This diagram does not indicate that this situation is resolved by what has been called a copying process rather than by Equi. Similar "copy raising" phenomena have been reported for Blackfoot (Frantz 1978), Koine Greek (Marlett 1976), Modern Greek (Joseph 1976), and Mojave (Munro 1976). This diagram also does not indicate that raising occurs only when the number verb upstairs expresses the number of times that the action occurred. Five arguments that the nominal which is the downstairs subject is also the final subject upstairs are given below.

2.1.1. Person agreement

Verbs in Seri agree in person with their final subject (Marlett (to appear, forthcoming)). Thus the first person marking occurs on the verbs in (7a-b) and the first person possessive prefix occurs on the nominalized verbs in (8a-b). It can be seen from (9) that an upstairs verb does not agree with a downstairs subject. The fact that both verbs in (8a-b) agree with the same nominal follows if the final subject of the downstairs clause is also the final subject of the upstairs clause of the iteration construction. The facts regarding person agreement in the iteration construction hold true regardless of the person or number of the downstairs subject, whether the downstairs clause is finally transitive or intransitive, whether the downstairs subject is semantically an agent or patient, or whether the subject of the downstairs clause is referential or nonreferential, as the following examples illustrate.

(11) ?akX mi-mi:ʔ im-ta:ʂox^wk
 somewhere your-not existing you-were four (times)

'Did you faint (die) four times?'

(12) psa:k ?a-yaXiat ki? ?a-ma:ʔatXox
 hunger our-dying (pl.) the we-were many (pl.) (times)

'We were often hungry.'; more literally,
 'We died hunger-wise many times.'

(13) ?ant ?i-ʔa:ʔxkoil ?a-ma:kalkam
 down our-falling (pl.) we-were two (pl.) (times)

'We fell down twice.'

(14) Luisa ki? ?a:t ki? i-kaʂni ki? ma:ʔatXo
 Luisa the torote the her-biting the she was many (times)

'Luisa has bitten torote many times.'

- (15) moXima ki? iki i:-pka ma:pXa
 yesterday the on its-raining it was three (times)

'It rained three times yesterday.'

2.1.2. Number agreement

Seri verbs agree in number with their final subject (Marlett (to appear, forthcoming)). Thus both the upstairs and downstairs verbs in (12) and (13) are marked for plural number. As the following extent construction shows, an upstairs verb does not agree in number with a downstairs subject.

- (16) ?a-y-a:tosiplox ki? mi:-tXo
 we-NOM-write/PL the mood-many

'We wrote a great deal.'

The fact that the upstairs verbs in (12) and (13) are marked for plural number follows if the downstairs subject is also the final upstairs subject.

2.1.3. Upstairs subject as Equi victim

Equi victims in Seri must be final subjects (Marlett (to appear, forthcoming)), as in (17).

- (17) ?e mos ikataX i?mi:mSo
 I also to go I want

'I want to go also.'

When an iteration construction, such as (18a), is embedded in an appropriate structure, the putative raised nominal can be an Equi victim, as in (18b).

- (18)a. ma?iSt i?pma:kx
 my tattooing you I was twice

'I tattooed you twice.'

- b. ma?iSt ika:kx i?mi:mSo
 my tattooing you to be twice I want

'I want to tattoo you twice.'

An extent construction similarly embedded does not result in an infinitive.

- (19) ?ant ?imkak iti mi?i:? ki? iXa:p i3oX^wk
 land that on your being the days its being four

intam3o
 do you want

'Do you want you to stay there for four days?'

The fact that an infinitive appears in (18b) follows if the subject of the downstairs clause is also the subject of the number verb.

2.1.4. Imperatives

Imperative forms of verbs are possible in Seri when the final subject is second person or first person plural. If the downstairs nominal of a raising construction is second person, a second person imperative can be formed on the upstairs verb, as shown by (20). If the downstairs nominal of the raising construction is first person plural, a first person plural imperative can be formed on the upstairs verb, as shown by (21). This is an additional piece of evidence that the final subject of the higher verb is the same nominal which is the final subject of the downstairs clause.

- (20) mi?iXl a:kx
 your taking (you) be twice

'Grab twice!'

- (21) ?i?iXax ska:kalkam
 our taking (pl.) let's be twice (pl.)

'Let's grab twice!'

Imperatives cannot be formed on the extent construction since the upstairs subject is not second person.

- (22) *?aya:tosiplox ki? skatXox

'Let's write a great deal!'

2.1.5. Relativization

When the final subject of a relative clause is coreferential with the head noun, the subject of the embedded clause does not appear and the subject nominalizer is prefixed to the verb. This nominalizer has the shape /k-/ in (23).

- (23) ktam k-ataX 'the man who is going / went'

When the coreferent nominal in the embedded clause is not the final subject, a different nominalizer occurs. The fact that /k-/ appears in (24) is another piece of evidence that the subject of the downstairs clause is also the final subject of the verb /-atXo/.

- (24) ktam ki? ʒeme kop iʔo:ktɑ k-a:ʔ-atXo
man the sunset the his looking NOM-X-many

'the man who looks at the sunset often...'

2.2. Arguments that the downstairs clause is not a final 2

If the Relational Succession Law (Perlmutter and Postal (to appear b)) is correct, the ascende^e will bear the same relation upstairs as did the clause out of which it ascended. If the Chomeur Law (Perlmutter and Postal (in press a)) is correct, the embedded clause will bear the chomeur relation at the level at which the ascension occurs. If the embedded clause is an initial 2, the above-mentioned laws predict that the ascende^e will bear the 2 relation upstairs and that the downstairs clause will bear the chomeur relation. The ascende^e then presumably advances to subject by unaccusative advancement (Perlmutter 1978).

The raising analysis and the above-mentioned proposed laws of universal grammar make a strong and not totally expected claim. Perlmutter and Postal (in press b) have defined a transitive stratum as one which contains a 1-arc and a 2-arc and an intransitive stratum as one which is not transitive. The claim made by the relational grammar analysis is that the final stratum of the upstairs clause of the iteration construction is intransitive since it does not contain a 2-arc. The analysis of a strikingly similar set of facts in Mojave (Munro 1976) in a transformational framework made the opposite prediction. Arguments for the final intransitivity of these clauses (together with the finalhood of the ascende^e) are arguments that the downstairs clause is not a final 2. I will give eight arguments that support the claim that the final stratum of the upstairs clause is indeed intransitive.

2.2.1. First person subject prefix allomorphy

The first person singular subject prefix has two allomorphs: /ʔ-/ when the final stratum is transitive, as in (7a), and /ʔp-/ when the final stratum is intransitive, as in (25a-c).

- (25)a. iʔp-yo:fp
I-arrived

'I arrived.'

- b. iʔp-mo:ʔitim
I-am eating (unspecified)

'I am eating.'

- c. iʔp-ya:ʔkaʒni
I-was bitten

'I was bitten.'

The fact that the allomorph /ʔp-/ occurs in (8a-b) is one piece of

evidence for the intransitivity of the final stratum of the matrix clause.

2.2.2. Infinitive prefix allomorphy

The infinitive prefix has two allomorphs: /i?a-/ when the final stratum is transitive, as in (26a), and /ika-/ when the final stratum is intransitive, as in (26b-d).

(26)a. ʒi:X ʒ i?a-?it imtamʒo
thing a INF-eat do you want

'Do you want to eat something?'

b. ik-oit i?Xo:mʒo
INF-dance I want

'I want to dance!'

c. ik-o:p kiya ?a?a
INF-sew (unspecified basket) she knows how

'She knows how to basket-sew well.'

d. ika-paʒt i?Xo:mʒo
INF-be tattooed I want

'I want to be tattooed.'

That the allomorph /ika-/ occurs in (18b) is a second piece of evidence for the intransitivity of the final stratum of these clauses.

2.2.3. Second person imperative prefix allomorphy

The imperative prefix has several suppletive allomorphs. Of interest here is the fact that the allomorph /θ-/ plus an ablaut rule occurs before verbs beginning with certain vowels when the verb occurs in a finally intransitive clause, as in (27a-d), but /ʔ-/ before the same type of vowels if the verb occurs in a finally transitive clause, as in (27e-h).

(27)a. /θ-oit/ → ait 'Dance!'
b. /θ-o:s/ → as 'Sing!'
c. /θ-o-tis/ → atis 'Point (at unspecified)!'
d. /θ-a:om/ → a:om 'Beg (for unspecified)!'

e. ʔ-o:kta 'Look at it!'
f. ʔ-o:nɪ 'Stir it!'
g. ʔ-a:ʒi 'Carry it away!'
h. ʔ-a:i 'Do it!'

The fact that the "intransitive" allomorph occurs in sentences such as (28) is additional evidence for the intransitivity of the final stratum

of these clauses.

(28)a. mi?iXl Ø-a:kx
your taking IMP-twice

'Grab twice!'

b. ?immišt Ø-a:kx
your tattooing me IMP-twice

'Tattoo me twice.'

2.2.4. First person imperative prefix allomorphy

The first person plural imperative prefix has two suppletive allomorphs. The allomorph /ska-/ occurs when the final stratum is intransitive and the allomorph /sa-/ (plus an ablauting rule) occurs when the final stratum is transitive.

(29)a. ska-maiX
IMP-quiet (pl.)

'Let's be quiet!'

b. sk-oi:tolka
IMP-eat (pl.) (unspecified)

'Let's eat!'

c. s-emosam
IMP-beg (pl.)

'Let's beg for it!'

d. sa-pko:yo
IMP-taste (pl.)

'Let's taste it!'

The fact that the intransitive allomorph occurs in sentences such as (30) is another piece of evidence for the intransitivity of the final stratum of these clauses.

(30) ?i?iXax sk-a:kalkam
our taking (pl.) IMP-twice (pl.)

'Let's grab twice!'

2.2.5. Action nominalizer allomorphy

The nominalizer that appears on verbs in complement clauses has three allomorphs, two of which will be considered below. When the final stratum of the embedded clause is intransitive and the segment following

the nominalizer is a low vowel, the allomorph /-y-/ occurs, as in (31a-b). If the final stratum is transitive, however, the allomorph /-ʔ-/ occurs before this kind of vowel, as in (31c-d).

- (31)a. iʔ-y-a:spox 'that I write'
 my-NOM-write
- b. im-y-a:ʔtXima 'that you be rich'
 your-NOM-rich
- c. ʔi-ʔ-a:fk 'that I pound it'
 my-NOM-pound
- d. mi-ʔ-a:ʔo:pol 'that you blacken it'
 your-NOM-blacken

The fact that the allomorph /-y-/ occurs in sentence (32) is another piece of evidence for the intransitivity of the final stratum of these clauses.

- (32) mi-ʔ-iXl im-y-a:kx iʔmi:mʂo
 your-NOM-take your-NOM-twice I want
- 'I want you to grab twice.'

2.2.6. First person singular exclusive allomorphy

When a person wishes to emphasize his personal feeling with respect to something, the first person singular exclusive pronoun ʔate: may be used. In such cases the normal first person subject prefix is omitted and a special morpheme indicating first person singular exclusive occurs following the mood marker (or negative morpheme, if present). This morpheme has two suppletive allomorphs: /-a:-/ when the final stratum of the clause is transitive, as in (33a), and /-ka:-/ when the final stratum is intransitive, as in (33b-c).

- (33)a. ʔate: sa:pi: ʔaʔa
 I will taste it
- 'As for me, I will taste it.'
- b. ʔate: somka:taX ʔaʔa
 I will not go
- 'As for me, I won't go.'
- c. ʔate: ska:paʂt ʔaʔa
 I will be tattooed
- 'As for me, I'll be tattooed.'

The fact that the allomorph /-ka:-/ occurs in (34) is another piece of evidence for the final intransitivity of these clauses.

- (34) Mexico ak ano ?ati:fp imka:?atXo
 the in my arriving I have been many times

'As for me, I've been to Mexico City many times.'

2.2.7. Unspecified subject

A clause with an unspecified final subject is marked by the prefix /-ka-/, as in the first clause of (35). A final transitive stratum with an unspecified final subject is not permitted, however; a passive construction is required, as illustrated by the second clause of (35).

- (35) ?e?ean kom ano tki:?tim
 plant area the in one was

?a:t ki? tpa?o
 torote the it was seen

'When one is in the desert, (and) when torote is found...'

Therefore the presence of the prefix /-ka-/ is an indication that the final stratum is intransitive. In (36) the unspecified subject of the downstairs clause is raised and is the final subject of the upstairs clause. The upstairs clause is marked with the prefix /-ka-/, another piece of evidence that the final stratum is intransitive.

- (36) an ikafp ki? poka:?atXo
 to one's arriving the one will be many times

'If one arrives there often...'

It is also the case that passives of these times constructions are ungrammatical.

2.2.8. Object marker

When a finite clause has a final third person subject and a final third person direct object in Seri, the object marker /i-/ occurs on the verb, as in (37a-b). The clauses in (38) are all finally intransitive and this prefix does not occur.

- (37)a. kmike ktam %o tok k^wti:? ?aX3 % imi:k^w
 person man a there he was dog a he killed it

'There was a man, he killed a dog.'

- b. ikataX iXo:m%o
 to go he wants it

'He wants to go!'

(38)a. Xa:pɬ
it's cold

'It's cold!'

b. ?ap ki? toXi ma yopa?it
deer the it died SR it was eaten

'When a deer died (at our hand), it was eaten.'

c. mo:?itim
he is eating (unspecified)

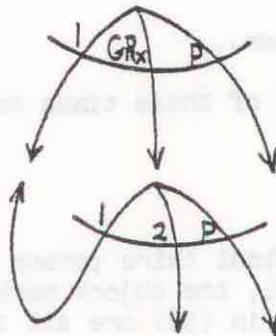
'He's eating.'

The fact that the object marker does not appear on the number verb in the iteration construction, as in (14) and (15), is an eighth piece of evidence for the final intransitivity of these clauses, and hence for the final non-2hood of the downstairs clause.

2.3. Arguments for a raising analysis

The analysis of the iteration construction which is partially represented by stratal diagram (10) is not the only analysis which is consistent with the facts presented in sections 2.1-2. In this section I will argue specifically against one alternative, a monostratal analysis which is summarized by stratal diagram (39).

(39)



As argued in section 2.1, a downstairs subject is the final upstairs subject. As argued in section 2.2, the downstairs clause is not a final 2. The two analyses are not equivalent, however. In section 2.3.1 I will present some additional facts which must be taken into consideration and in section 2.3.2 I will make the two analyses explicit and demonstrate the differences in complexity.

2.3.1. Restricted raising out of passive clauses

One fact that has not been shown yet is that a raising construction is not preferred when the downstairs clause is passive. In fact, a raising construction in this case is ungrammatical except when the

upstairs verb is /-atXo/ 'many' (cf. (8b)). Consider the following sentences. Although a 'times' meaning is involved in (40), a raising construction is ungrammatical.

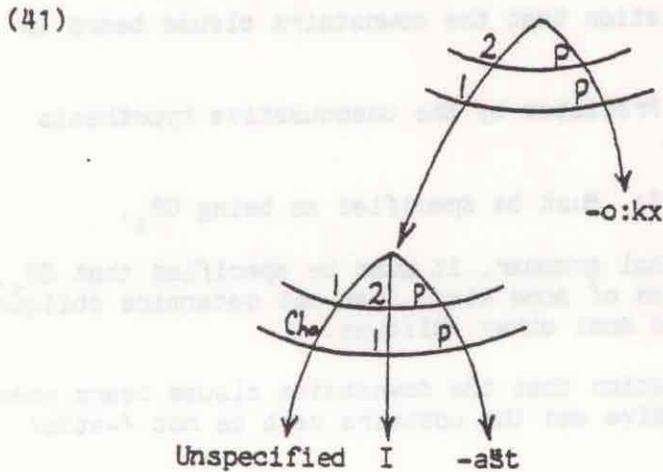
- (40)a. ?ipašt mɔ:kx
 my being tattooed it was two
 'I was tattooed twice.'
- b. *?ipašt i?pma:kx
 my being tattooed I was twice
 (same gloss)

Notice that when raising does not occur, the 'times' prefix also does not occur.

2.3.2. Comparison between the monostratal analysis and the raising analysis

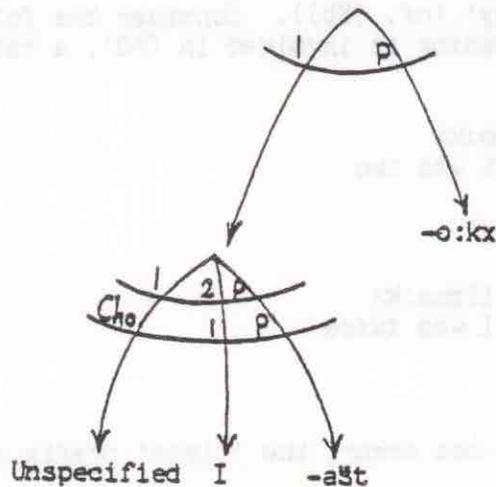
In this section I will make the two analyses explicit and show that they differ in complexity.

The bistratal analysis for (40a) is represented by the partial stratal diagram shown in (41).



The monostratal analysis for (40a) is represented by (42).

(42)



The grammars which incorporate the bistratal and monostratal analyses will now be compared. The 'raising grammar' incorporates the raising analysis for sentences with downstairs active clauses and the analysis represented by stratal diagram (41) for clauses with downstairs passives. The 'monostratal grammar' incorporates the analyses represented by stratal diagrams (39) and (42). For the sake of convenience, the appropriate diagram numbers follow the name of the grammars.

With respect to the relation that the downstairs clause bears in the raising construction:

Raising grammar (10): Predicted by the unaccusative hypothesis and the Chomur Law.

Monostratal grammar (39): Must be specified as being GR_x .

Furthermore, in the monostratal grammar, it must be specified that GR_x , presumably an oblique relation of some kind, does not determine oblique agreement on the verb, unlike most other obliques.

With respect to the relation that the downstairs clause bears when the downstairs clause is passive and the upstairs verb is not /-atXo/ 'many':

Raising grammar (41): Predicted by the unaccusative hypothesis and Unaccusative advancement.

Monostratal grammar (42): Must be specified as being 1.

While the raising grammar posits the same initial relations regardless of whether the downstairs clause is passive or not, the monostratal grammar posits distinct initial relations, complicating the grammar.

With respect to the presence of a nonclausal subject in the upstairs clause:

Raising grammar (10): Obligatory raising under certain conditions.

Monostratal grammar (39): Specify that a 'times' expression must have a nonclausal subject under certain conditions.

With respect to the coreference restrictions on the subjects of the two clauses in the raising construction:

Raising grammar (10): Predicted by the raising of the downstairs 1.

Monostratal grammar (39): Must be specified as being necessarily coreferential.

With respect to the restrictions imposed by downstairs passive clauses:

Raising grammar (41): Condition: Raising out of a passive clause is a) optional when the upstairs verb is /-atXo/; b) blocked otherwise.

Monostratal grammar (42): Condition: A 'times' expression can have a nonclausal subject when the downstairs clause is passive a) optionally if the upstairs verb is /-atXo/; b) blocked otherwise.

With respect to the occurrence of the prefix glossed "X":

For both grammars: The morpheme glossed 'X' has a zero allomorph when the final subject of the clause is clausal.

The preceding comparison shows that the monostratal grammar must include at least four language-specific statements to handle facts which are handled in the raising grammar by the ascension and certain proposed universals. In at least four ways, therefore, the raising grammar is preferable to the monostratal grammar.

3. The notion 'first' subject

The question of what notion of subject the SR marking rule refers to becomes very important when clauses involving subject raising are considered. Number predicates would be predicted to fall within the class of unaccusative predicates (Perlmutter 1978). In Perlmutter 1979 and Perlmutter and Postal (to appear a) the claim is also made that raising is always out of a 2. If the downstairs clause of the raising construction in Seri heads an initial 2-arc (cf. (10)), which these proposed universals would predict, it is not clear how the SR marking rule would apply as presently formulated in (6) since there is no initial subject. As the following sentence shows, however, the rule must be made to work since SR marking occurs.

(43) ?aX₃ ?imkop ?imikatX_{1a} ki? pa:?atX_o taX
 dog that its biting me the it will be many times SR

i?pso:?a ?a?a
 I will cry

'If that dog bites me often, I will cry.'

If it is assumed that the downstairs clause heads an initial 1-arc, rule (6) incorrectly predicts that SR marking would occur in the following sentence.

(44) ?aX₃ ?imkop ?imikatX_{1a} ki? pa:?atX_{oX}
 dog that its biting me the it will be many times

soX₁ ?a?a
 it will die

'If that dog bites me often, it will die.'

As pointed out in section 2.3.1 above, the occurrence of a raising construction is more restricted when the downstairs clause is passive. The sentences in (45) are both grammatical; (45a) involves raising and (45b) does not.

(45)a. ?ipašt ki? ?pa:?atX_o
 my being tattooed the I will be many times

?pskmo:?a ?a?a
 I won't cry

'If I am tattooed many times, I won't cry.'

b. ?ipašt kwpo:tX_o taX
 my being tattooed it will be many times SR

i?pskmo:?a ?a?a
 I won't cry

(same gloss)

Therefore any SR rule which makes reference to the initial (relational), deep (transformational), or logical (realistic transformational) subject is empirically inadequate. I suggest that (6) must be reformulated in terms of the first subject rather than the initial subject of a clause, using the following definition of first subject.¹⁰

(46) Nominal a is the first subject of clause d if it heads a 1-arc in stratum c_i of clause d and there is no nominal b in clause d which heads a 1-arc in stratum c_j, where $j < i$.

Structure (10), which incorporates an unaccusative initial stratum,

together with SR marking rule (47), correctly predicts that different subject marking will not occur in (44) or (45a) and that it will occur in (43) and (45b).

- (47) If the first subject of clause A is not coreferential to the first subject of clause B, different subject marking occurs.

An analysis in which the downstairs clause heads an initial 1-arc and which used rule (47) would incorrectly predict that different subject marking will occur in (43).

Since standard transformational grammar and Bresnan's realistic transformational grammar do not incorporate the unaccusative hypothesis, a viable notion of first subject is not possible in them. The best analysis in these frameworks would therefore necessarily involve a disjunction. Switch reference marking would have to refer to the deep or logical subject except in a raising construction, in which case it would refer to the surface subject.

4. Conclusions

It has been shown that an explicit analysis of the switch reference marking system and subject raising in Seri provide arguments in favor of both the unaccusative hypothesis and the notion 'first subject' since both are necessary to account for the switch reference marking facts. An empirically adequate linguistic theory must therefore incorporate these notions. The subject raising facts also lend further support to the Chomeur Law, the Relational Succession Law, the claim that all raising is out of 2s, and the proposed definitions of transitive/intransitive strata.

Footnotes

* This material is in prepublication form, and no reference or quotation may be made without the written permission of the author.

I am grateful to Terry Klokeid and David Perlmutter for their helpful comments on earlier versions of this paper. Responsibility for errors and inadequacies is of course my own. Fieldwork was facilitated by a grant from the Office of Graduate Studies and Research, University of California at San Diego, a research assistantship with David Perlmutter, and a grant (No. BNS-8001985) from the National Science Foundation. Seri is a Hokan language spoken by about 470 people in northern Mexico. My language consultants were Roberto Herrera Marcos, Lorenzo Herrera Casanova, and Sergio Mendez Mendez.

1. For more details, see Marlett (forthcoming).
2. In all of the examples discussed below, it is a final subject which is raised. In Marlett (forthcoming) it is shown that the initial

unspecified subject of a passive clause may also be raised.

3. Although this prefix bears some resemblance both to the passive prefix and the prefix which occurs in causative constructions, its allomorphs and their distribution differ from those. The allomorph /-a:ʔ-/ occurs with the verb /-atXo/ 'many'. The allomorph /-a:-/ plus a special rule deleting the first vowel of a vowel-initial root occurs elsewhere.

The following abbreviations are used: IMP = imperative, INF = infinitive, NCM = nominalizer, CM = object marker, PASS = passive, pl = plural, SR = switch reference, 1 = subject, and 2 = direct object.

4. I will briefly mention here two arguments against an analysis claiming that the downstairs clause initially bears some relation other than 2 or 1 to the upstairs clause. First, the Relational Succession Law or the Oblique Law (Perlmutter and Postal, in press a) would have to be weakened under such an analysis. Second, most final obliques in Seri determine oblique agreement on the verb (Marlett (to appear, forthcoming)). If the downstairs clause were a final oblique, oblique agreement would be expected.

5. It might also be argued in this case that the allomorphy depends on initial rather than final transitivity or intransitivity.

6. The allomorph /-ʔ-/ also occurs before the allomorph /-a:ʔ-/ of the passive prefix, which is why it occurs in (13). The verb /-a:ʔxi:t/ 'fall' has lexicalized the passive prefix.

7. The third person oblique prefix precedes the upstairs verb if it is /-atXo/ 'many' (cf. (45b)). I have no explanation for this.

8. The object marker /i-/ does not occur before the verb in the raising construction, although the generalization accounting for this prefix which is proposed in Marlett (to appear) would predict its occurrence here. A generalization that accounts for this fact is given in Marlett (forthcoming).

9. This morpheme also occurs in two other types of constructions, both of which are superficially monoclausal and transitive by all of the pertinent tests. The first is age expressions, illustrated by the examples in (i).

(i)a. ʔant iʔ-m-a:-kx
year I-mood-X-two
'I am two years old.'

b. ʔant i-m-a:-kx
year CM-mood-X-two
'He is two years old.'

- c. ?ant p-a:-a:-?anl ika:?it spaa ?a?a
year mood-PASS-X-ten to fish it will be known

'When one is ten years old, one can go fishing.'

The second is an expression of 'doubling/tripling/etc.'.

- (ii) po:sx ki? ipot i?-s-a:-kx ?a?a
line the its calf I-mood-X-two auxiliary

'I will double up the fishing line.'

The expression in (ii) also occurs intransitive, with no 'times' prefix: ipot ko:kx. The 'times' prefix is therefore functioning as a causative prefix in this case it appears. It contrasts, however, with the causative construction meaning 'to cause to be two/three/etc.'.

10. Perlmutter (to appear a) suggests that such a notion may be necessary.

References

- Bresnan, J. A realistic transformational grammar. Linguistic theory and psychological reality, ed. by M. Halle, J. Bresnan, and G. Miller. Cambridge: MIT Press.
- Frantz, D. 1978. Copying from complements in Blackfoot. Linguistic structures of Native Canada, ed. by Eung-do Cook and J. Kaye.
- Joseph, B. 1976. Raising in Modern Greek: A copying process?. Harvard studies in syntax and semantics II, ed. by J. Hankamer and J. Aissen.
- Marlett, S. (to appear). Personal and impersonal passives in Seri. In Perlmutter (to appear).
- Marlett, S. (forthcoming). The structure of Seri.
- Moser, M. 1978. Switch reference in Seri. IJAL 44.113-120.
- Munro, P. 1976. Subject raising, auxiliarization, and predicate raising: The Mojave evidence. IJAL 42.99-112.
- Perlmutter, D. 1978. Impersonal passives and the unaccusative hypothesis. Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society.
- Perlmutter, D. 1979. Working 1s and inversion in Italian, Japanese, and Quechua. Proceedings of the Fifth Annual Meeting of the Berkeley Linguistics Society.
- Perlmutter, D. (ed.) (in press) Studies in relational grammar 1.

- Perlmutter, D. (to appear a) Syntactic representation, syntactic levels, and the notion of subject. The nature of syntactic representation, ed. by P. Jacobsen and G. Pullum.
- Perlmutter, D. (ed.) (to appear) Studies in relational grammar 2.
- Perlmutter, D. and P. Postal. 1977. Toward a universal characterization of passive. Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society.
- Perlmutter, D. and P. Postal. (in press a) Some proposed laws of basic clause structure. In Perlmutter (in press).
- Perlmutter, D. and P. Postal. (in press b) The 1-Advancement exclusiveness law. In Perlmutter (in press).
- Perlmutter, D. and P. Postal. (to appear a) Impersonal passives and some relational laws. In Perlmutter (to appear).
- Perlmutter, D. and P. Postal. (to appear b) The Relational Succession Law. In Perlmutter (to appear).