CASE FORMS AND CASE RELATIONS IN SORA

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1.   *Background*

1.1   *Sora*

Sora is a Southern Munda language spoken by
about 300,000 people in the border districts of Andhr
Pradesh and Orissa in India.   The variety of Sora
under discussion in my paper is that spoken by Mr.
Tabono Savra, a resident of Səndəŋ, a small village
near Serango in the southern part of Ganjam District
in Orissa.   The field work on which this paper is
based was conducted in about ten months in India in
1963 and 1965-66.

1.2   *Lexicase*

My doctoral dissertation in 1967 was a descrip
tion of the syntax of Sora.   One of the aspects of
Sora syntax that I now feel was treated inadequately
in that work was the system of relations between Nou
Phrases and predicates, and the surface devices by
which these relations were signalled.   Since that
time, a number of generative grammarians have come t
understand the nature and importance of such rela-
tions, and the works of Charles Fillmore and his stu
dents have begun to provide us with the formal
machinery to treat them in generative grammars.   How
ever, one problem that has not been given serious
attention in Fillmorean case grammar, or in the case
lexicalist work of the English Syntax Project at
UCLA, is the important generalizations that can be

tured in the mapping of case relations onto case
ms.

In recent years, I and some of my students and
leagues at the University of Hawaii, including
fessors Liem and Manley who have also presented
ers at this conference, have been developing a
sion of generative case grammar that will allow a
mmar to capture generalities about case realiza-
ns as well as case relations, generalities that
l be comparable beyond the boundaries of a given
guage. This approach, which has been referred to
'lexicase' in Harvey Taylor's dissertation on case
Japanese (Taylor 1971), provides that every nominal
stituent in a sentence be marked for the case rela-
n obtaining between it and the predicate or head
n of its construction, and for a case form which
ifests this relation. The resulting descriptions
somewhat similar to the studies of the traditional
mmarians. Thus where a traditional grammarian
ht speak of a particular use of, say, the dative
e as the 'dative of personal agent' (Fillmore
1:36), a lexicase grammar would mark that constit-
t as having the [+D] case form and the [+AGT]
e relation. In the subsequent discussion, I will
low Fillmore in referring to case-marked constit-
ts as 'actants' (Fillmore 1969:367).

Case in Sora

Within this lexicase framework, I have attempted
make some sense out of the array of elements which
nal the various case relations in Sora sentences.
situation is somewhat more complex in Sora than
say, Latin, because Sora does not have a system
noun inflections which can be sorted out in a
rly straightforward way into 'cases', or case forms.

Instead, case relations are signalled by several dis
tinct types of grammatical devices, including subjec
and object agreement, word order, postpositions, and
noun compounding and derivation. These can, however
be sorted out and grouped into grammatically equiva-
lent sets in a fairly interesting and revealing way.
The explication will involve first a discussion of
the case relations I have had to posit for Sora, and
then of the case forms by which they are realized, a
the various markers which correspond to the case
forms.

2.   *Case Relations*

2.1   *The Agent case relation* [+AGT]

2.11 *Definition*

      The Agent case relation [+AGT] in Fillmore's
terms is 'the typically animate perceived instigator
of the action identified by the verb' (Fillmore 1968
24). I do not assume, however, that 'Agent' is to b
equated with 'intent'.[1] In Sora, agents occur only
in those sentences having non-nominative Objective
case constituents (Taylor 1971:38). This definition
seems to formally capture quite neatly the tradition
common-sense conception of transitive verbs--those
verbs that refer to an action that is directed towar
some object. Agents occur in few if any of the 'mid
dle' derived verbs in Sora (Starosta 1971b:202-204)
referred to by Biligiri (1965:232) as '+N' verbs.

2.12 *Realization*

      The Agent case relation can only appear in th
[+NM] case form; that is, Sora is an accusative lan
guage which lacks a passive construction. Those ve
translated as passives in Biligiri's article on Sor
verbs (Biligiri 1965:232) are simply instances of

jectless transitive verbs marked for non-third
son object agreement.

The Instrumental case relation [+INS]

1 *Definition*

The definition of the Instrumental case relation
be used here is somewhat broader than that usual in
lmorean case grammars. It includes not only 'the
nimate force or object causally involved in the
ion or state identified by the verb' (Fillmore
8:24) but also the material or means involved
sally in the action, and any objects or materials
ch may be necessary to the performance of an action
ch is in some sense semantically 'intransitive',
t is, an action that does not affect any external
ect directly. In this sense, anything played with
lived by means of would be eligible to be consid-
d an instrument. This means that while it is still
e that any verb allowing an agent must also allow
instrument, there are verbs such as m?eŋ- 'live'
 kəniet- 'die' which allow instruments but do not
ow agents. Conveyances, which are treated as in-
uments in some languages, are locatives in Sora.
s, Sora travel in the bus, never with or by the
.

2 *Realization*

The Instrumental relation is realized only by
 [+I] case form, and possibly by [+NM] when it
urs as the subject of the bañ- 'to be useful
'. However, this verb appears too infrequently in
texts for me to be very certain on this point, and
 examples given by Ramamurti (1938:52) are incon-
sive.

The Objective case relation [+OBJ]

2.31 *Definition*

The Objective case relation [+OBJ] is, as usual
the 'wastebasket' case relation, 'the semantically
most neutral case, the case of anything representable
by a noun whose role in the action or state identifie
by the verb is identified by the semantic interpreta-
tion of the verb itself' (Fillmore 1968:25). In gen-
eral, it will be that element which is acted upon, or
whose state or existence is predicated. However, thi
relation subsumes several that have been treated as
distinct in other case grammars, including Experience
and Result/Factitive. These two types will be treate
here as the interpretations given to the neutral
Objective case when it appears with psychological and
creative verbs respectively. It also includes actant
that have generally been considered agents previously
for example, the subjects of the following English
sentences would all be considered [+OBJ] by this
definition:

(1) Keone moved slightly.

(2) Kimo ran the mile in four minutes flat.

Except for the untenable criterion of 'intention',
there is really no compelling reason to consider
'Keone' and 'Kimo' to be agents in these sentences;
and if they are so considered, important syntactic
and semantic generalizations must be abandoned
(Starosta 1971a:444-445). Objective is the normal
case relation of the subjects of intransitive, middle
motion, and stative verbs, and of the objects of
subjectless existential verbs.

2.32 *Factitive/Result and the criterion of corefer-
ence*

I was originally hesitant about including
Result/Factitive as a subtype of Objective, but it

rns out that there are several reasons for treating
em as grammatically equivalent. First of all, their
ntactic behavior is almost identical. Both are
alized by the same case form, and both agree in per-
n and number with verbs. In general, they are in
mplementary distribution, since Result occurs only
th creative verbs and Objective normally doesn't.
wever, there is a small class of verbs, exemplified
səbja- 'make, construct' with which both can occur
multaneously. By Fillmore's claim that only one
stance of a given case relation can occur in a sim-
e sentence (1971:38), it would seem necessary to
nclude that when both Objective and Result occur in
e same sentence, either they are different cases or
e sentence is really complex at the deep structure
vel (Fillmore 1971:38). Since the lexicase frame-
rk does not distinguish deep and surface structure
vels and thus cannot analyze a simple sentence as
mplex at some other level, we would seem to be
rced to adopt the former alternative, and conclude
at Objective and Factitive/Result are distinct case
lations. There is, however, a third possibility to
nsider, namely that Fillmore's 'one-instance-per-
ause' principle is too strong, and that two in-
ances of the same case relation can in fact occur
 the same simple sentence if they are coreferential,
at is, if the referent of one actant is identical
 or included in the referent of the other. For
ample, it is well known that a simple sentence can
ntain any number of Locatives, as long as they are
lated in a hierarchy of inclusion (Fillmore 1971:
); thus it is perfectly acceptable to say:

    (3)   Keone was lying on a bench under a palm
           tree near the beach at Ala Moana Park.

This sentence is allowed to contain four Locative con-
stituents because they form a hierarchy of inclusion;
all refer to the same location, though they vary in
the degree of specificity with which they identify
this location. In that sense, we can say the four
Locative actants are coreferential, and satisfy the
condition suggested above. Two other solutions that
might be proposed to account for such sentences, for
example, to treat them as complex or conjoined in
deep structure, or to consider them to be a single
branching constituent with each prepositional phrase
a reduced relative clause modifying the preceding
noun, both seem unconvincing, and in any event are
not available to a grammar written in a framework tha
makes the strong claims about the nature of syntax
that are made in lexicase.

It does not seem to have been noticed by any
other case grammarians that the criterion of corefer-
ence makes it possible to consider separate non-
locative actants as having the same case relationship
in a simple sentence. Consider for example:

> (4) I slapped him on the leg. (Fillmore 1970
>   126)

> (5) The tractor broke John's leg with its
>   right front wheel. (Lee 1969:38)

In case grammars which allow a deep structure, such
sentences can be considered to be derived respective
ly from structures like:

> (4') I slapped his leg (Fillmore 1970:126)

> (5') The tractor's right front wheel broke
>   John's leg (Lee 1969:38)

However, in a lexicase grammar, this obvious solutio
is not available, but the coreference criterion is

ailable; each sentence can be considered to contain
 tokens of the same case relation:

(4") I slapped him on the leg
$$\begin{bmatrix} +AC \\ +OBJ \end{bmatrix} \qquad \begin{bmatrix} +L \\ +OBJ \end{bmatrix}$$

(5") The tractor broke John's leg with its
$$\begin{bmatrix} +NM \\ +INS \end{bmatrix}$$
right front wheel
$$\begin{bmatrix} +I \\ +INS \end{bmatrix}$$

e that these sentences cannot be interpreted to
n that 'the leg' and 'the wheel' are not inalien-
.e parts of 'him' and 'the tractor' respectively.
e second must be part of (included in, inalienably
ssessed by) the first. That is, such split case
.ations must satisfy the proposed coreference con-
:ion.

Returning to the question of the distinction
:ween Objective and Factitive, it appears that the
.terion of coreference can be adduced to allow both
 be considered subtypes of the same case relation,
ective. Consider the Sora sentence (4):

$$\qquad \ \ \ 1 \qquad \ \ \ 3 \qquad \ \ \ 2 \qquad \ \ 4$$
(6) anin kursi-n aŋal-ən səbja-lɛ (Starosta
$$\qquad \ \ \begin{bmatrix} +0 \\ +OBJ \end{bmatrix} \quad \begin{bmatrix} +0 \\ +OBJ \end{bmatrix} \qquad \qquad 1967{:}127)$$

$$1 \quad \ 4 \qquad \ \ 3 \qquad \qquad 2$$
'He made a chair out of firewood' or
'He made firewood out of the chair'

vould like to claim that this sentence contains two
stances of the Objective casè, both of them refer-
g to the same physical material, with the real-world
ferent of the chair included in the real-world

referent of the firewood or vice versa. Thus it is
unnecessary to posit a separate Factitive or Result
case; Factitive is just a type of Objective cooccur-
ring with a [+factitive] verb (cf. Kullavanijaya,
1974). By Fillmore's definition, the Objective
noun's "role in the action or state identified with
the verb is identified by the semantic interpretation
of the verb itself." I interpret this to mean that
the object [+AC,+OBJ] of a factitive verb such as idɔ
'write' can be identified by means of a rule of seman
tic interpretation as that which comes into existence
as a result of the action of the verb, and thus no
separate Factitive case relation need be postulated.
Similarly, the object of a verb like jom 'eat' can be
interpreted by means of a semantic interpretation rul
triggered by the presence of the feature [+afct] in
the verb's matrix as that participant in the event
which is affected by the action of the verb. In the
same way, the object of a verb like gij 'see' will be
neither created nor affected, since 'see' is non-
factitive, non-affected [-fctv,-afct]. Sora verbs
such as səbja 'make', then, are considered to be both
factitive and affected [+fctv,+afct]:

(7) gij 'see'   idɔl 'write'

$$\begin{bmatrix} +V \\ -afct \\ + \begin{bmatrix} +NM \\ +DAT \end{bmatrix} \underline{\quad} \\ + \begin{bmatrix} +AC \\ +OBJ \end{bmatrix} \underline{\quad} \end{bmatrix} \qquad \begin{bmatrix} +V \\ -afct \\ + \begin{bmatrix} +NM \\ +AGT \end{bmatrix} \underline{\quad} \\ + \begin{bmatrix} +AC \\ +OBJ \end{bmatrix} \underline{\quad} \end{bmatrix}$$

```
    jom 'eat'                səbja 'make'
┌─            ─┐          ┌─            ─┐
│+V           │          │+V           │
│+afct        │          │+afct        │
│-fctv        │          │+fctv        │
│  ┌─   ─┐    │          │  ┌─   ─┐    │
│+ │+NM │ ___ │          │+ │+NM │ ___ │
│  │+AGT│     │          │  │+AGT│     │
│  └─   ─┘    │          │  └─   ─┘    │
│  ┌─   ─┐    │          │  ┌─   ─┐    │
│+ │+AC │ ___ │          │+ │+AC │ ___ │
│  │+OBJ│     │          │  │+OBJ│     │
│  └─   ─┘    │          │  └─   ─┘    │
└─            ─┘          └─            ─┘
```

This means that the object of səbja can be interpreted
as either factitive or affected; or, if two objects
are present, one will be interpreted as factitive and
the other as affected. If two objects cooccur with a
single verb, they must be coreferential by the crite-
rion stated above. Generally, the context of situa-
tion will allow the Semantic Interpretation Component
(Taylor 1971:11) to distinguish them. It is possible,
however, for sentences such as (6) above to allow two
different interpretations in an appropriate context.
By allowing two tokens of a given case to occur in a
single sentence, subject to the coreference criterion,
it becomes possible to account for the similarity in
syntactic behavior of the two types of actant, which
would otherwise have to be treated as accidental.

Certain verb classes in Sora impose special
requirements on their Objective actants. For example,
impersonal verbs require that their subjects (if any)
be abstract, and therefore third person singular by
a probably universal rule:

(7)   de 'become, occur'
```
┌─              ─┐
│+V             │
│  ┌─   ─┐      │
│+ │+AC │   ___ │
│  │+DAT│       │
│  └─   ─┘      │
│   ┌─   ─┐     │
│+ (│+NM │) ___ │
│   │+OBJ│      │
│   └─   ─┘     │
│  ┌─    ─┐     │
│- │+NM  │  ___ │
│  │-abst│      │
│  └─    ─┘     │
└─              ─┘
```

(8a) [+abst] → [+mass]

(8b) [+mass] → $\begin{bmatrix} -\text{spkr} \\ -\text{addr} \end{bmatrix}$ spkr = speaker
addr = addressee

Another example is the class of middle verbs, which
require their [+OBJ] constituents to be marked
[+afct]. This same fact has been noted for Gorum by
Zide (1972:210) and for Tagalog by Ramos (1973:55-56

2.33 *Realization*

The Objective case relation can be manifested '
the Nominative [+NM], Accusative [+AC], and Locative
[+L] case forms.

2.4 *The Dative case relation* [+DAT]

2.41 *Definition*

I consider the Dative case relation to be the
relation which identifies 'the animate being affecte
by the state or action identified by the verb'
(Fillmore 1968:24), though I diverge from Fillmore's
proposals in that I label an actant as Dative only i
it occurs with a verb which also allows an Objective
actant to cooccur with it in the same sentence.   In
general, I would agree with Fillmore (1971:42) that
is a mistake to define case in terms of animateness,
since that is confusing 'true case-like notions' wit
selectional criteria.   The Soras, however, have thei
own ideas on this subject, and it is in fact grammat
ically as well as semantically impossible to get an
inanimate Dative in Sora, as will be seen below.

Like 'Factitive', the syntactic behavior of th
Dative case relation is almost identical to that of
the Objective; transitive verbs agree with both Dati
and Objective actants in person and number (with
Dative taking precedence when both are present and
marked [+AC] in the same sentence), and both actant

…es require compounding with 'noun auxiliaries'
…arosta 1967:169-178) when their head nouns are
…nan. However, when Dative and Objective cooccur in
…entence, as they frequently do, they are never
…referential, and thus must be treated as separate
…se relations by Fillmore's principle of limiting
…se relations to one instance of each per clause.

I have followed Fillmore's suggestion (1968:49,
…) in considering the relation between a noun and its
…ssessor to be Dative. As far as I can determine,
…en possession in Sora is expressed directly, it is
…ays expressed syntactically as a relation between
…uns; there is no place in the case frame of any
…rb for possessors. They must come in as attributes
… other nouns (10), as possessive affixes (11), as
…catives (12), or as concrete Benefactives (13) or
…ic Benefactives (14). Thus it is not possible to
… directly:

```
     1     2      3              1  3  2
) *ñɛn lebu-n dəko-tay        I have money.
   ⎡+NM⎤ ⎡+AC ⎤
   ⎣+DAT⎦ ⎣+OBJ⎦
```

…stead, one must say one of the following sentences:

```
      1      2      3     4          1   2   3
)  pəsij-ən a-lebu-n dəko         The child's money
   ⎡+G  ⎤    ⎡+NM  ⎤                    4
   ⎣+DAT⎦    ⎢+OBJ ⎥                 exists.
            ⎣+poss⎦

     1     2    3                  2   1    3
)  lebu-ñɛn dəko                  My money exists.
   ⎡+NM  ⎤
   ⎢+OBJ ⎥
   ⎣+poss⎦

     1      2     3    4           4-  -4  3  1   1
)  məŋ-ñɛn lebu-n dəko          ·There is money on/near
   ⎡+AC ⎤   ⎡+NM ⎤                      2
   ⎣+LOC⎦   ⎣+OBJ⎦                     me.
```

```
        1    2    3    4       4-  -4  3   2   1
(13)  ñɛn asən lebu-n dəko    There is money for me
      ⎡+AC⎤ [+B] ⎡+NM ⎤
      ⎣+BEN⎦      ⎣+OBJ⎦


        1     2    3    4     2-  -2  1    4-   -4
(14)  ñɛn absɛle lebu-n dəko  As for me, there is
      ⎡+AC⎤ [+B]  ⎡+NM ⎤               3
      ⎣+BEN⎦       ⎣+OBJ⎦             money.
```

An interesting related fact is that the verbs ñi 'bu[y]
and tem 'sell' take Locatives rather than Datives.
That is, you can sell something 'at the trader's' bu[t]
not 'to the trader'. This seems to be connected wit[h]
the general Sora tendency to avoid animate head noun[s]
in non-subject constituents. This tendency will be
described in detail in the sections on Noun Auxilia-
ries below.

2.42 *Realization*

The Dative case relation can be manifested by
the Accusative [+AC] or Genitive [+G] *case forms.*

2.5   *The Comitative case relation* [+COM]

2.51 *Definition*

The Comitative case relation is 'that which i[s]
somehow associated in a parallel way with...another
actant in the verbal activity or state described'
(Taylor 1971:42). The parallel actant may be refer[red]
to as the 'partner' of the Comitative actant. It i[s]
usually an Agent or Objective.

```
        1     2    3           3  2   1
(15)  anin batte yer-ba     Go with him!
      ⎡+AC⎤ [+I]              (Ramamurti 1938:5[ ])
      ⎣+COM⎦
```

Comitative may also be used in adding things togeth[er]

```
   1  2   3      4    5    6          7       8
)  dɔ ñɛn əmpara okij tudru mənra-nji əmpara tənulu
     ⎡+C ⎤                  ⎡+C ⎤            ⎡+NM ⎤
     ⎣+COM⎦                 ⎣+COM⎦           ⎣+OBJ⎦
      9
      dɛ-le

   1   3    2    7   5    4     6       9-    -9
   So with me and with six other people, there were
        8
        seven.
```

this usage, there would seem to be no limit on the
ber of occurrences of Comitative actants. It may
that since part of the meaning of Comitative is
t it is to be considered together with one or more
er actants as a single semantic unit, a series of
or more Comitative actants meets the coreferen-
lity criterion previously mentioned; that is, their
erents together with the referent of the 'partner'
h which they are associated constitute a single
antic entity, in which each of them is included.
act which tends to confirm this proposal is the
ervation that in Sora, when a singular Comitative
ant has a singular subject as a partner, the verb
inflected for agreement with a plural subject,
icating that the Comitative actant and its partner
form a unit for purposes of agreement as well as
 purposes of determining how many actants of a
en case may occur.

2 *Realization*

   The Comitative case relation is manifested by
her the Instrumental [+I] or Comitative [+C] case
m.

   The Benefactive case relation [+BEN]

2.61 *Definition*

The Benefactive case relation is the relation
of the entity for whose benefit an action is per-
formed, or for the benefit of which a state exists;
or the entity in whose place an action is performed;
or that which is given in exchange for something els
or the reason or purpose for which an action is unde
taken; or frequently in Sora, the topic about which
comment is to be made. All these definitions seem t
exhibit some degree of semantic coherence, and so fa
I can find no syntactic motivation in Sora for sepa-
rating them into separate case relations. The 'rea-
son' or 'purpose' use of Benefactive would perhaps b
the most likely candidate for treatment as a separat
case, say, Reason ([+RSN]), and I did analyze it in
this way until recently. However, there seems to be
a statable partial complementarity between the topic
reason, and beneficial aspects of the [+BEN] case
relation; concrete [+BEN] actants may be either bene
ficial or topic, while abstract actants are inter-
preted as topic or reason. Nominalized sentences ar
abstract, and are always interpreted as Reason when
occurring in the Benefactive case relation. Finally
I do not know of any examples of a 'Reason' [+BEN]
cooccurring with another [+BEN] in the same sentenc

2.62 *Realization*

The Benefactive case relation is always reali
by the Benefactive case form [+B].

2.7 *The Locative case relation* [+LOC]

2.71 *Definition*

The Locative case relation designates the are
within which an action takes place or a state obtai
or the point or area to or from which a motion is
directed. It is possible in Sora to dispense with

h case relations as Source, Goal, and Direction.
of these can be accounted for as sub-case features
Locative actants which depend on lexical properties
elements such as verbs, prepositions, and noun
iliaries. Some type of Locative relation can occur
h every Sora verb, and some verbs such as direc-
nal and motion verbs impose particular requirements
the sub-type of Locative with which they can
ccur.

2 *Realization*

The Locative case relation can be realized only
the Accusative [+AC] and Locative [+L] case forms.

The Time case relation [+TIM]

1 *Definition*

The Time case relation obtains between the
dicate and the actant which states its time or
ation. A time expression can occur with any pre-
ate, though most predicates impose restrictions on
type allowed. Event verbs, for example, do not
ow duration Time actants. The behavior of the
e case is very similar to that of the Location
e, but there are syntactic and lexical as well as
antic differences, particularly in the area of
e form.

2 *Realization*

The Time case relation, like the Locative rela-
n, is realized by the Accusative [+AC] case form.
can also surface in a kind of participial clause,
remely common in Sora, in which a sentence des-
bing a previously completed or continuing action
embedded as subordinate to the main verb of a
her clause. The verb stem of the subordinate
use is reduplicated, with the first stem ending in

-an and the second ending in the past tense affix -l
for the completive sub-type, and with both stems
ending in -ata for the continuative type:

```
        1     2      3    4   5-    -5      6
(17)  rəŋa-n dɛ-lɛ jɨnaŋ dɛn sae-an sae-lɛ anin-ji
        7     8        9            10
      a-j/ən/r/om-g/ən/r/a-n-ji ɔskay-tɛji

      3    4    2  1      5-    -5       6
    Even if it is cold, having borne it, they
        10     7    8      9
      prepare their food and drink.  (cf. jom-
      'eat' and ga- 'drink')

        1      2-         -2      3     4     5
(18)  ɛt-te-gɔj diməd-ata diməd-ata abɔj arsi-n kun
         6   7   8     9    10         11   12
      a-bənda-leŋ-ən abɔj aŋgaj-ən a-d?ɔŋ gij-ɛtɛ

      2-        -2     1-    -1   3     4    12 9
    Always sleeping like that, one monkey saw a
      10-11 8 5-6    7
      moon in the tank.
```

2.9 *The Manner case relation* [+MAN]

2.91 *Definition*

The Manner case relation is the relation that
describes the manner or conditions under which an
action is carried out. Sora allows [+MAN] actants
occur in sentences which do not contain an Agent.

2.92 *Realization*

The Manner case relation can be manifested on
by the Instrumental [+I] case form and by manner
adverbs, those ending in -ge in Sora.

3. *Case forms*

So far, the case system of Sora may seem fair
straightforward. It is in the case forms, however,
the system of markers which signal the case relatio

t interesting complications are encountered.   While

anguage such as English signals the presence of

e relations by word order, subject agreement, pre-

itions, and pronoun suppletion, Sora case markers

lude subject agreement and object agreement, direc-

nal verb inflection, verbal derivational affixes,

tpositions, and free and bound noun auxiliaries

arosta 1967:169-179).   The latter are bound or

igatorily possessed nouns with special cooccurrence

case-bearing properties.   Sora is somewhat unusual

that various lexical classes of nouns are prevented

m being marked for certain cases.   For example,

mate nouns can never be marked for dative or loca-

e directly.   Instead, they occur as attributes of

tain dummy nouns which do allow marking for these

es.   These dummy nouns I have referred to in my

sertation as 'noun auxiliaries' (Nax).   Examples

l be given in the discussion of the individual

e forms.

The Nominative case form [+NM]

The Nominative case form marks the grammatical

ject of the sentence, a category whose presence is

er obligatory in a Sora sentence.   It is identified

the fact that it never takes postpositions, fre-

ntly precedes the other actants in a sentence, and

ees with non-stative verbs in person and number.[2]

Nominative case form realizes Agent, Objective,

possibly Instrumental case relations.

The Accusative case form [+AC]

The Accusative case form is the most versatile

the Sora case forms.   It never cooccurs with post-

itions, and follows the Nominative if both occur

the same sentence.   The Accusative case form may

lize four case relations: Objective, Locative,

Dative, and Time.   When it carries Dative or Objec-
tive, the verb agrees with it in person and number,
means of a set of affixes distinct from those markin
subject agreement, and morphologically related to th
personal pronouns.   The co-occurrence of Accusative
and each of the four case relations it realizes is
subject to certain lexical restrictions:

3.21 *Dative accusatives* [+AC,+DAT]

      Although the Dative case relation is always
carried by the Accusative case form, all Sora nouns
except one are forbidden from occurring in the case
relation [+DAT].   The one exception is the noun auxi
iary d?ɔŋ, which may be marked positively for [DAT]
[OBJ].   This form, an obligatorily possessed noun,
appears related to the homophonous word d?ɔŋ-ən
'body', though it requires a separate *lexical entry.*
Although formally a noun such as pəsiĵ-ən 'child' ca
not be directly marked [+DAT], it can occur in a
Dative actant as a possessive attribute of the only
noun which can be [+DAT], d?ɔŋ.   Since d?ɔŋ is sele
tionally prevented from occurring with inanimates,
effect only animates can hold Dative relationships
ditransitive verbs.   If we were to translate d?ɔŋ a
'body', in Sora you wouldn't give money to a child,
you would give money to his body:

```
        1     2        5    6
(19) *anin pəsij-ən lebu-n tiy-lɛ

     1     6      2     5
     He gave the child money.

        1     2      3   4     5      6
(20)  anin pəsij-ən a-d?ɔŋ lebu-n tiy-lɛ

     1    6    5          2    3    4
     He gave money to the child('s body).
```

The situation with respect to the Objective case
ation is somewhat similar. In Sora, human nouns
never carry the Objective case relation directly,
again must be attributes to the same noun auxil-
y, dʔɔŋ. That is, you cannot say:

```
    1     2       5
) *anin pəsij-ən gij-lɛ

   1 5         2
   He saw the child.
```

tead, you must say:

```
    1     2       3   4   5
) anin pəsij-ən a-dʔɔŋ gij-lɛ

   1 5         2    3   4
   He saw the child('s body).
```

ice that while all animate nouns must cooccur with
ŋ when dative, it is only the human subset of
mate nouns that require dʔɔŋ as objectives. Non-
an animates can be objectives with or without dʔɔŋ,
both forms can be found:

```
    1       2         5
) anin kənsim-ən tɨb-lɛ
         ⎡+AC ⎤
         ⎣+OBJ⎦

    1       2       3    4    5
) anin kənsim-ən a-dʔɔŋ tɨb-lɛ
                    ⎡∓AC  ⎤
                    ⎢+OBJ ⎥
                    ⎣+poss⎦

    1       5           2    3  4
    He divided the chicken('s body)
```

The Accusative case form can also realize the
ative case relation, but again, lexical restric-

tions are involved. Only a certain sub-set of Sora
nouns is marked for the ability to occur in the Loc
tive case relation directly. This set includes nam
for such things as places, structures, and land for
hills, fields, forests, and so on. These nouns wil
contain the semantic feature [+locn] in their lexic
matrices. Thus one can say:

```
        1     2       3
(25)  anin bəru-n  yɛr-lɛ
            ┌─────┐
            │+AC  │
            │+LOC │
            │+locn│
            └─────┘

      1   3          2-     -2
      He went to the hill field
```

Other nouns, however, cannot be marked direct
for Locative. To use a word such as dʔa 'water' as
Locative, one must compound it with a bound nominal
Combining Form like leŋ 'place, area'. The resulta
[+locn] compound can then be used like a lexically
locative noun:

```
          1          2   3      4
(26)  kudub-ənji dʔa-leŋ-ən gəlo-lɛji
                  ┌─────┐
                  │+AC  │
                  │+LOC │
                  │+locn│
                  │+nter│
                  └─────┘

      1-     -1   4   3        2
      All of them fell in the water.
```

This leŋ can also be added to nouns which are
already members of the location class. In this cas
it adds the idea of interiorness. Thus bəru-leŋ-ən
means 'in the field' or 'the inside of the field'.

These facts can be formalized by the followin
rules:

1. $[+N] \rightarrowtail [-locn]$: all nouns except those already marked $[+locn]$ in their lexical matrices are $[-locn]$.

2. $[+locn] \rightarrowtail [\pm LOC]$: location nouns may or may not be marked for the Locative case relation directly.

3. $[-locn] \rightarrowtail [-LOC]$: non-location nouns cannot be marked directly for the Locative case relation.

4.
$$\begin{bmatrix} +N \\ -anim \\ \alpha F_i \end{bmatrix} + \begin{bmatrix} le\eta \\ +N \\ +CF \\ +locn \\ +nter \end{bmatrix} \rightarrowtail \begin{bmatrix} +N \\ -anim \\ +locn \\ +nter \\ \alpha F_i \end{bmatrix}$$

Any noun can be compounded with the location bound Combining Form leŋ. The resulting compound noun is $[+locn, +nter]$. For further examples of compounding derivation rules applied to Sora nouns, see Starosta 1971b; for English examples, see Starosta 1971c.

Another bound nominal Combining Form, ba, can compounded with non-location inanimate nouns to a $[+locn]$ noun which is unmarked for interior-

```
   1      2        3  4 5 6
  anin  sərɔ-ba-n  ə?-ti-l-iñ
 ⌈+NM ⌉ ⌈+AC  ⌉
 ⌊+AGT⌋ ⌊+OBJ ⌋
        ⌊+locn⌋

   1  3-5    4   6              2
  He didn't give me the paddy field.
```

Since ba cannot be a word by itself, it is not
ted in the lexicon, and a special rule is estab-
ied to account for ba- compounding:

(29)

$$\begin{bmatrix} +N \\ -anim \\ \alpha F_i \end{bmatrix} + \begin{matrix} ba \\ \begin{bmatrix} +N \\ +CF \\ +locn \end{bmatrix} \end{matrix} \longmapsto \begin{bmatrix} +N \\ -anim \\ +locn \\ \alpha F_i \end{bmatrix}$$

The ba forms are true compound nouns, and as such are subject to diachronic processes of semanti and phonological change. Thus sɔrɔ-ba-n 'paddy fie is formed from sɔrɔ-n 'paddy rice' and the nominal Combining Form ba 'point, place', but the resulting compound noun means 'paddy field' rather than just place where paddy might be piled, threshed, etc. A other kind of change in a compound noun which is the output of this rule can be observed in the word for 'place of work, job'. This word has two possible pronunciations, baraban and barabən. The first of these forms is the one that would be expected from compounding of ba with the noun bara-n 'work', with the internal structure bara-ba-n. The second form, however, seems to be the result of a reanalysis, wi the final vowel reduced to ə and reinterpreted as p of the usual post-consonantal noun suffix ən, indic ting a new internal structure barab-ən instead of bara-ba-n.

Certain direction verbs require that their Lc tive actants be specified as 'goal'. This requirem can be met by compounding the [+locn] noun of the L cative actant with ba-, which adds the required fea ture [+goal].

```
        1    2      3     4   5   6   7   8
(30)  dɔ təgəlda-leŋ-ən  sʔuŋ-ba-len  ərͻ-lay
                              ⎡+A C  ⎤
                              ⎢+LOC  ⎥
                              ⎣+goal ⎦

      1  3          2     8    7-8   6   4      5
      So in the morning we reached our home (place)
```

s fact can be accommodated by modifying the deriva-
al rule in (29) to:

$$
\begin{bmatrix} +N \\ -anim \\ <+locn> \\ \alpha F_i \end{bmatrix} + \begin{bmatrix} ba \\ +N \\ +CF \\ +locn \end{bmatrix} \rightarrowtail \begin{bmatrix} +N \\ -anim \\ +locn \\ <+goal> \\ \alpha F_i \end{bmatrix}
$$

 fact that the possessive pronominal suffix -len
' in (30) follows rather than precedes ba is addi-
al confirmation for the claim that ba plus the
ediately preceding noun do in fact form a single
ound noun.

     With location-class nouns, ba is optional if the
 allows but does not require a [+goal] Locative:

```
     1    2   3       4
)  anlen s?uŋ(ba)n a-paŋ-lenay
          ⎡+AC   ⎤
          ⎢+LOC  ⎥
          ⎣(+goal)⎦

   1    4       3    2
   We brought it (to) home.
```

     Animate nouns can also be used as location nouns
 the same way as inanimates, but in such cases, a
ferent form, məŋ 'area, vicinity' is used. This
, like d?ɔŋ, is an obligatorily possessed noun,
her than a bound Combining Form like leŋ or ba.
s means that it cannot only serve as the head of a
n phrase with an animate attribute (33), but it
 also constitute a noun phrase by itself, provided
has an animate possessive affix (34):

```
        1    2    3    4     5 6 7
(33)  dɔ konne biñ babu-n a-məŋ iy-lay
                          ┌+AC  ┐
                          │+LOC │
                          │+poss│
                          └+locn┘
```

```
    1   3       7          4    5    6        2
    So however I came to the Babu('s vicinity) he
```

```
       1    2    3    4    5      6   7   8
(34)  məŋ-ñɛn əsuj əyəm tənəŋ-lɛ dɔ ñɛn soy-lay
     ┌+AC  ┐
     │+LOC │
     │+poss│
     └+locn┘
```

```
            5     1  2     2      1              3
      It stopped near me (in my vicinity) for a lit
            4  6  7  8
         time and I fired.
```

To accommodate these facts, it is only necessary to
add the following entry to the lexicon:

```
(35)  məŋ 'area, vicinity'
     ┌+Ñ       ┐
     │-NM      │
     │-anim    │
     │+locn    │
     │+poss    │
     └-[-anim] ┘
```

This makes it possible for an animate noun to appea
in a Locative constituent, but only as a possessive
attribute to the noun məŋ. When an animate noun is
to occur as a Locative goal, it must first be made
[+locn] by making it an attribute to the noun auxil
iary məŋ. Since məŋ, the head noun of the Noun
Phrase, is [+locn], it is of course subject to com-
pounding with ba by derivational rule (31):

```
       1     2  3  4      5          6        7
    ənsɛlɔ-n a-məŋ-ba-n ɔŋgɛr-ən tɔŋsɛŋ-ən batte
                │+AC  │
                │+LOC │
                │+poss│
                │+locn│
                │+goal│
                └     ┘

       8
    iy-tɛ

    5   8    7      6      4        1      2
 The man goes (with) dancing to the woman('s
       3
    vicinity).
```

:e məŋ is listed in the lexicon as an independent
, it can also occur without an attribute. How-
, since it is obligatorily possessed [+poss], it
still appear with a possessive pronominal affix
example (12)). When it is compounded with ba,
[+poss] feature carries over, and the derived
ound noun is also obligatorily possessed:

```
    1     2     3        4     5      6  7  8
   oante ñɛn tənəŋ-lay tette k+na-n məŋ-ba-ñɛn
                                       │+AC  │
                                       │+LOC │
                                       │+poss│
                                       │+locn│
                                       │+goal│
                                       └     ┘

       9
    jəloj-lɛ

    1   2    3      4        5       9       7
 Where I stood, there the tiger slid (down) to
    8   7  8      6
    me (to my vicinity).
```

+ *Time accusatives* [+AC,+TIM]

    The Time case relation also appears in the Accu-
ve case form, and its behavior is very similar to
: of the Locative relation. Again, there is a
:lass of Sora nouns which may be marked directly

for the Time relation. This includes words such as
əyəm 'time', dinna 'day', palli 'week', and təgəl
'morning', as in:

```
        1        2        3
(38)  anin  təgəlda-n  yɛr-lɛ
              ⎡+AC  ⎤
              ⎢+TIM ⎥
              ⎣+time⎦

      1  3              2
      He went in the morning.
```

Other nouns, however, cannot be marked direct
for Time, and must appear as attributes of such tim
marked noun auxiliaries as aʔnəŋ 'during', aʔməŋ
'before', and tiki 'after'. aʔməŋ and tiki are cons
ered [+time] nouns rather than postpositions becaus
they can occur alone, meaning 'the time before that
and 'the time after that' respectively, and I have
assumed for the time being that aʔnəŋ is also a nou
auxiliary, although I have found no example of it
occurring alone.

The nouns occurring with these [+time] noun
auxiliaries, and I include entire nominalized sen-
tences as instances of derived nouns (cf.No. 19), a
almost exclusively abstract. I have however found
one exception to this rule:

```
        1      2        3      4       5      6
(39)  sora-mər-ənji  ora-n  aʔnəŋ  bɔybɔy  bəŋsa-lɛ
                            ⎡+AC  ⎤
                            ⎢+TIM ⎥
                            ⎣+time⎦

          7        8
        anin-ji  mʔɛŋ-tɛji

          1        2      7  8    5    6     4
      The Sora people, they live very well during t
          3
        mango (season).
```

Nouns already in the time class can be further
ved with the addition of leŋ, with the result
ing 'a bounded interval of time'. This is com-
ely analogous to the use of the same element, leŋ,
location-class nouns to mean 'a bounded area':

```
   1         2        3  4      5        6    7
 eten-te  a-bara-n  a-lɨm-be-n  dɛ-tɛ-len  kun

        8      9        10           11          12    13
     a-dinna-leŋ-ən  anlen  dərgəm-dərgəm  bara-ba-n
        ┌─────┐
        │+AC  │
        │+TIM │
        │+locn│
        │+time│
        │+nter│
        └─────┘

        14
     a-yɛr-tɛ
```

```
  1       2     6   5   4   3  9  7   8    10 14
 Whatever work we have to do on that day, we go
              11    12-13
     to our various jobs.
```

 fact can be accounted for by derivation rule
4), which is allowed to apply to [+time] nouns,
e they are lexically marked [-anim]. The result-
compound nouns will then be specified for the
ures [+locn,+nter,+time]. There is no incompati-
ty between [+locn] and [+time], and it is quite
al to find that some language uses the same word
efer to location in space or time (Cf. Starosta
:3).

e seem to be no time elements corresponding to the
tive noun auxiliaries məŋ and ba, but there is a
er analogous element iŋ 'season', found in several
ounds:

    daga-iŋ-ən 'summer' < daga-n 'heat' + iŋ-ən
        'season'

(42) rəŋa-iŋ-ən 'winter' < rəŋa-n 'cold' + iŋ-ən
      'season'

This seems comparable in function to the bound noun
ba 'place' found in the compounds sərɔ-ba-n 'paddy
field' and bara-ba-n 'place of work' mentioned above
and a similar compounding rule can be posited to
account for these forms:

(43)
$$
\begin{bmatrix} +N \\ +temp \\ \alpha F_i \end{bmatrix}
\;+\;
\overset{\text{iŋ}}{\begin{bmatrix} +N \\ +time \\ +seas \end{bmatrix}}
\;\rightarrowtail\;
\begin{bmatrix} +N \\ +time \\ +seas \\ +temp \\ \alpha F_i \end{bmatrix}
$$

Of course this rule is much less general than the
rules for leŋ and ba, since it only applies to temp
ature nouns, and since the output compounds are mar
as seasons rather than more generally as any period
time characterized by a particular temperature rang

3.3 *The Locative case form* [+L]

     The Locative case form is signalled by two pc
positions, səriŋ 'from' and sikɔyja 'up to, until'.
*These elements refer to orientation rather than mo-
tion.* This case form can realize not only Locative
(44 and 45) and Time (46 and 47), but also Objectiv
(48):

```
        1     2          3      4      5        6      7
(44)  dɔ rəŋa-iŋ-ən a?nen aninji s?uŋ-ən səriŋ jən
                                  ⎡+AC⎤   ⎡+L ⎤
                                  ⎣+LOC⎦   ⎣+src⎦

        8   9
      leer duŋ-tenji

        1   3        2      4     7     9    6
      So during the winter they also leave from th
        5       8
      house early.
```

```
1     2      3-    -3    4      5      6
dɔ aleb-ən de-an de-le-n dəjiŋ sənaj sikoyja
                              ┌─────┐ ┌─────┐
                              │+AC  │ │+L   │
                              │+LOC │ │+term│
                              └─────┘ └─────┘

    7
  yɛr-ɛted

1     2      3-    -3-  -3   7      6
So the deer, having got up, went to a place
      4           5
  somewhat distant.

1    2      3-       4         5      6      7
dɔ bara-leŋ-ənji tegelda-n seriŋ ɔrɨb-en sikoyja
                ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐
                │+AC  │ │+L   │ │+AC  │ │+L   │
                │+TIM │ │+src │ │+TIM │ │+term│
                └─────┘ └─────┘ └─────┘ └─────┘

    8          9
  anlen a-bara-tenay

1 8   9 3       2       5      4      7
So we work at our tasks from morning until
      6
  evening.

1    2      3          4        5     6-     -6
dɔ kun kənsim-ən sənna-n seriŋ lu-ata lu-ata
                ┌─────┐ ┌─────┐
                │+AC  │ │+L   │
                │+TIM │ │+src │
                └─────┘ └─────┘

    7     8
  tiki suṛa-lɛ

1     2      3        7      6-     -6-        -6
So that chicken, after being fed continuously
    5-    4      -5    8-     -8
  from small on, grew big.

 1      2         3            4      5      6
sɔra-mer-ənji uria-nji a-məŋ seriŋ kudub
                      ┌─────┐ ┌─────┐
                      │+AC  │ │+L   │
                      │+LOC │ │+src │
                      │+poss│ └─────┘
                      │+locn│
                      └─────┘

    7            8       9      10         11
  jənab-ənji sinriŋ seriŋ bɔŋtɛl-ən sikoyja
            ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐
            │+AC  │ │+L   │ │+AC  │ │+L   │
            │+OBJ │ │+src │ │+OBJ │ │+term│
            └─────┘ └─────┘ └─────┘ └─────┘
```

12   13
         anin-ji paŋ-tɛji

         1-2   13   6-7   9   8   11   10
     The Soras get everything from clothes to buff-
              4-5   3
         loes from the Oriyas.

         We might say that these postpositions govern
the Accusative case, since they occur with almost a
the case relations that occur with the Accusative
case form. On the infrequent occasions when they
occur with animate nouns, the animate noun must app
as an attribute of məŋ to make it eligible to appea
as [+LOC], as illustrated in example (48) above.

         I have heard phrases such as the following fr
missionaries and Sora evangelists:

         1   2 3   4   4-5
(49) jisu-n a-məŋ-ba-n səriŋ
               ⎡+locn⎤   ⎡+L ⎤
               ⎣+goal⎦   ⎣+src⎦

         5   1   2   3
     from Jesus('s vicinity)

This construction also occurs in the Sora Bible, I
believe, and seems to be an example of King James
Sora rather than of colloquial language. It seems
very awkward to me, possibly due to the semantic co
flict of [+src] with [+goal], which implies the fea
ture [-src].

         There is a special use of the [+L] postposi-
tion səriŋ in comparative constructions:

         1   2   3   4   5
(50) apɨrməŋta sed-ruŋ-ən   səriŋ kristu-mər-ənji
               ⎡∓AC ⎤   ⎡∓L ⎤
               ⎣+OBJ⎦   ⎣+src⎦

6   7
      a-sed-ruŋ-ən ɛʔ-ne-gɔj

    3-   -3   1   2   4
    Compared to former weddings, the Christian
        5   6   7
      people's wedding is thus:

The Instrumental case form [+I]

The Instrumental case form carries the Manner,
rumental, and Comitative case relations. It is
alled by the postposition batte:

    1   2   3
    anin batte yɛr-ba
    ⌈+AC⌉ [+I]
    ⌊+COM⌋

    3   2   1
    Go with him!

    1   2   3 4 5
    kundi-n batte pɔ-iñ-ten
    ⌈+AC⌉   [+I]
    ⌊+INS⌋

        3 5   4   2   1
    He stabbed me with a knife.

The Comitative case form [+C]

The Comitative case form can only realize the
tative case relation. The marker of the [+C]
form is the postposition empera:

    1   2   3-   -3   4   5   6
    teʔte ñɛn yɛr-an yɛr-lɛ teʔte a-gɔrjaŋ-mər-ənji
                                              ⌈+AC ⌉
                                              │+COM │
                                              ⌊+poss⌋

        7   8   9   10   11   12   13
      empera kɨnsar-ən a-sɔy-be-n asən bo sora
      [+C]

      14   15   16
      tuleb-ba-n anlen a-gən-lay

```
      3-    -3    1    2    16    12    13    14    7
      Having gone there, I entered a large forest wi

          6              5         4 10-11  9      8
          people of that village there to shoot Samba
```

3.6   *The Benefactive case form* [+B]

The Benefactive case form can realize only the
Benefactive case relation, although, as previously
stated, the Benefactive case relation has several
functions. The markers of the [+B] case are the pos
positions asən, ə?mele, and əbsɛle. I can find no
clear difference of meaning between them, and they a
generally interchangeable in sentences:

```
          1       2        3          4      5     6
(54) hindo sɔra-mər-ənji əbsɛle əsuj ber-na
               ⌈ＦAC⌉          [+B ]
               ⌊+BEN⌋

     5-  -5  6       4         1      2-3
     A few words about the Hindu Soras.

          1       2     3     4       5      6     7
(55) dɛ-te pɛdde biñdɔ anlen ə?mele ijaja ted
                        ⌈ＦAC⌉   [+B ]
                        ⌊+BEN⌋

          2-  -2   1      3                6-7
     That may be right, but there's nothing in it
          5    4
          for us.

          1       2        3        4       5  6
(56) aninji tuləb-ən yɛr-tɛji [oṛa-n a-paŋ-be-n] a
                               ⌈+AC⌉              [-
                               ⌊+BEN⌋

     1    3       2       7         6          5
     They go to the forest for the purpose of gett
          4
          mangoes.
```

3.7   *The Genitive case form* [+G]

The Genitive [+G] case form carries the Dativ
case, the possessive relation between a head noun a

attributes. The [+G] case form has no overt
ixes, prepositions, or noun auxiliaries. It is
racterized by requiring all nouns to which it is an
ribute to be marked for possession and to agree
h it in person and number. The first and second
son personal pronouns may not occur in the [+G]
 form; instead, first and second person possession
signalled solely by pronominal affixes on the head
ı:

```
     1   2                          2    1
    s?uŋ-ñɛn                       'my house'

     1   2                            2   1
    s?uŋ-nəm                       'your house'

    2   3   1                       3   1       2-3
   (anin) a-s?uŋ-ən                'his house (of his)'

    2       3   1                   3   1           2-3
   ənsɛlɔ-n a-s?uŋ-ən              'her house of the woman'
```

ice that bound noun auxiliaries like məŋ and d?ɔŋ
low almost exactly the same pattern, although the
ish translations make them look quite different:

```
     1   2                          1   2
    məŋ-ñɛn                        'near me'

     1   2                          1   2
    məŋ-nəm                        'near you'

    1   2   3                       3   1-2
   (anin) a-məŋ                    'near him'

     1     2   3                    3       1-2
    ənsɛlɔ-n a-məŋ                 'near the woman'

    1   2                          1   2
   d?ɔŋ-ñɛn                        'to me'

    1   2                          1   2
   d?ɔŋ-nəm                        'to you'
```

```
    1     2  3                3  1-2
 (anin) a-dʔɔŋ(ən)           'to him'

    1        2  3             3      1-2
 ənsɛlɔ-n a-dʔɔŋ(ən)        'to the woman'
```

4.0 *Conclusion*

4.1 *Overview of case forms, case relations, and case markers*

	NM	G	AC	L	I	C	B
	agrmt		agrmt	**P:	P:	P:	P:
				səriŋ sikɔyja	batte	əmpəra	asən əbsɛlə əʔmelə
AGT	X						
OBJ	X		*Nax: dʔɔŋ	X			
DAT		X	Nax: dʔɔŋ				
LOC			Nax: -leŋ-ən -ba-n məŋ	X			
TIM			Nax: aʔməŋ tiki aʔnəŋ -leŋ-ən	X			
INS	(X)				X		
COM					X	X	
MAN					X		
BEN							X

*Noun auxiliary

**Postposition

Summation

I believe that the case forms and case relations
ⱽve outlined in this paper will make possible a
ₑr classification of Sora verbs and a subsequent
ₑll case description of Sora syntax. It should
ₒ make the case system of Sora accessible for com-
ᵢson with the systems of other languages described
ᵥiously in a lexicase framework.

---

[1]This means, for example, that I reject the
ₗdity of the 'imperative test' as a means of iden-
ᵥing Agent subjects. Verbs other than those with
ₐt subjects can be imperative:

Hit it with your horn! (AGT)

See no evil, hear no evil, speak no evil!
  (DAT, DAT, AGT)

Be quiet! (OBJ)

Be a man! (OBJ)

ₑover, sentences with Agent subjects can be inter-
ₜable as non-intentional:

That union carpenter broke the picture window
  with a two-by-four (AGT)

ₛ sentence may have either an intentional or non-
ₙtional subject, but to say that the case of the
ₑct is not AGT in the non-intentional interpreta-
ₙ leads to all kinds of generality losses.

[2]In a lexicase grammar, agreement can be
ₒunted for using inflectional subcategorizational
ₑs and morphophonemic rules. For example, ISR-1
ₒw states that a non-existential non-stative verb
ₛupposes a subject which may be singular or plural
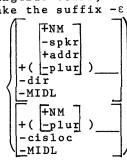ₗur], and first person [+spkr], second person
ₗdr], or third person [-spkr,-addr]:

$$\text{·1.} \quad \begin{bmatrix} \mp([+\text{NM}]) \\ -\text{stative} \end{bmatrix} \rightarrow \begin{bmatrix} +(\begin{bmatrix} \mp\text{NM} \\ +\text{spkr} \\ \mp\text{addr} \\ \mp\text{plur} \end{bmatrix})\_\_\_ \end{bmatrix}$$

ₐ states that all (non-stative) non-directional
ₜ person singular verbs, and all singular cisloca-
ₑ verbs, take the suffix ay:

$$
\text{MR-1.} \quad]_V \;\rightarrow\; \text{ay}]_V \quad / \quad \left\{ \begin{array}{l} \left[+\left(\begin{array}{c} \text{+NM} \\ \text{+spkr} \\ \text{-addr} \\ \boxed{\text{-plur}} \end{array} \right)\underline{\quad} \\ \text{-dir} \end{array} \right] \\ \left[+\left(\begin{array}{c} \text{+NM} \\ \boxed{\text{-plur}} \end{array} \right)\underline{\quad} \\ \text{+cisloc} \end{array} \right] \end{array} \right\}
$$

MR-2 states that all (non-stative) non-directional
active second person singular verbs, and all singula[r]
translocative verbs, take the suffix -ε:

$$
\text{MR-2.} \quad]_V \;\rightarrow\; \varepsilon]_V \quad / \quad \left\{ \begin{array}{l} \left[+\left(\begin{array}{c} \text{+NM} \\ \text{-spkr} \\ \text{+addr} \\ \boxed{\text{-plur}} \end{array} \right)\underline{\quad} \\ \text{-dir} \\ \text{-MIDL} \end{array} \right] \\ \left[+\left(\begin{array}{c} \text{+NM} \\ \boxed{\text{-plur}} \end{array} \right)\underline{\quad} \\ \text{-cisloc} \\ \text{-MIDL} \end{array} \right] \end{array} \right\}
$$

Such rules can be formulated to account for all
inflection and agreement phenomena in Sora. For the
conventions applying to such rules, and for all exem[-]
plification of their use in a full-scale grammatical
description, see Li 1973.

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