

THE MANY WAYS TO BE INVISIBLE IN SORA¹

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Abstract

Sora makes extensive use of reduplication, infixation, prefixation and suffixation as means to express derivational and inflectional relationships. Given the flexibility of the language and the tolerance of speakers to neologisms, there are at least two dozen different paths one can take to arrive at a word that translates as English ‘invisible’. This combines both elements traditionally subsumed under the heading of ‘derivation’ and others more typically called ‘inflection’, but that distinction is not relevant in Sora, as elements that have core inflectional meanings (e.g., TAM) can also change the syntactic category of the resulting word. In this presentation the morphological apparatus of Sora and the ingenious ways speakers use the materials available in their language to arrive at a target semantics. Importantly from an Austroasiatic perspective, many of the elements involved go back to ancient states of the language, and thus offer insight into the flexibility of such a system that does not reflect South Asian areal contact in Sora, but rather largely utilizes Austroasiatic structures like infixation, reduplication, etc.

Keywords: inflexion, derivation, (in)visibility

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1 The many ways to invisible in Sora

In the present study, we exemplify the many formal means of converging on a similar semantic target by means of the various words Sora uses that can be translated as ‘invisible’ in English. All involve a form of the stem ‘see’ in various phonologically and derivationally related forms. Most involve a clear negative scope operator in a prefixal slot, either the finite negator *aC-/ əC-* (**ad-/ *əd-*) before consonant-initial stems or *an-* (*adn-/ann-/aʔn-*) before vowel-initial ones, or the non-finite/nominalized negator *ir-/er-*, while some also involve the negative copula *ted*. Most such forms in modifying functions assign the dependent prefix to a following modified nominal, represented in the templates discussed below by a following *ə-*. This is seen in the derived negative forms in (1).

(1)

- | | |
|--|---|
| i. <i>agguʔuren ə-</i>
<i>ag-guʔur-e-n ə-</i>
[NEG-ripen/PSV.CAP/-SBJNTCV-N.SFX DEP-]
‘fruitless’
(Ramamurti 1933b:88) | ii. <i>aggadelen ə-</i>
<i>ag-gadel-e-n ə-</i>
[NEG-happen-SBJNTCV-N.SFX DEP-]
‘impossible; unsuccessful’
(Ramamurti 1933b:107, 88) |
|--|---|

The full list of the forms discussed in this paper is offered in (2). All twenty-plus of the words in (2) in some contexts can be translated as, or have as their core semantic content, the meaning of ‘invisible’. Sources for these forms include Ramamurti (1933a, 1933b), an unpublished lexicon by Stampe and Donegan, and our authors’ field notes.

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- | | | |
|--|---|--|
| (2) <i>adgidznen ə-
aggittaen ə-
anabgiddəmnən ə-
aʔgeʔedzen;
ergɪʔidzen ə-;
erɔŋgəniggidzted;
erpaŋgiddəmnən ə-;
irgənita(n)
rɔŋgənɪdzted</i> | <i>adnabgidznen ə-
aggittalaŋnen ə-
anabgidzdamnən ə-
ergidz;
ergɪʔidzmad ə-;
erpaŋaggiggiddəmnən ə-;
erɔŋgiddəmnən ə-;
rəbti əginnen ə-;</i> | <i>əgginne ə-
əggɪʔidzen ə-
anəgginne ə-
ergittən ə-;
ergɪʔilleben ə-;

əgidzben addeen ə-;
rəpti ɛrginnən ə-;</i> |
|--|---|--|

When breaking down the semantics of ‘invisible’ we find that such a formation should encode a basic lexical core of ‘seeing’ under negative scope, so likely with a negator, also with a capabilitive and passive modal sense, and potentially with an added nuance of difficulty or ease in achieving the activity. Thus, we find as semantic ‘primitives’ at least see+NEG+CAP+PSV and potentially ‘easily’ as well. The core semantics of seeing can be simplex or augmented so variation in the lexical stem is an obvious option, and there are several formal means of encoding negation in Sora, and the concepts of capability and passiveness are interconnected and moreover have more than one formal exponent to encode such semantic nuances. When considering these various factors, and allowing for obsolescence of certain forms, it becomes easier to see how there could be more than twenty ways to get to the concept ‘invisible’ in Sora. We examine the morphological make up of these varied forms in the following sections.

2 Forms based on the finite negator

2.1 NEG-Stem-ITR/MDL-SBJNCTV(-N.SFX DEP-)

The first pattern of forms we turn to are ones that consist of the ‘finite’ negator prefix, the SBJNCTV (negative non-past) and the passive/capabilitive semantics encoded by the inflectional intransitive/middle marker, that subsumes many concepts that have come to be called ‘low transitivity’ (Hopper and Thompson 1980) in the typological literature. An example of its use with other lexical semantics can be seen in (3)-(4).

- (3) itr/mdl -n-
 i. *soso-t-ai* ii. *soso-ti-n-ai*
 ~hide-npst-lact ~hide-npst-itr/mdl-lact
 ‘I will hide it’ ‘I will hide (myself), I will be hidden’
 (Field Notes, Lanjiasor, Odisha)
- (4) *mo-te-n*
 swallow-npst-ir/mdl
 ‘easily swallowed, can be swallowed’
 (Field Notes, Lanjiasor, Odisha)

Three of our forms for ‘invisible’ have the shape of what appears to be a finite negative intransitive/middle verb to which the so-called *n*-suffix attaches to form a nominalized form that then projects the DEP prefix onto the following modified noun. These forms are found in (5)-(7).

- (5) *adgidʒnen ə-*
ad-gidʒ-n-e-n ə-
NEG-see-ITR/MDL-SBJNTCV-N.SFX DEP-
'invisible' (Ramamurti 1933b:107)
- (6) *adnabgidʒnen ə-*
adn-ab-gidʒ-n-e-n ə-
NEG-CAUS-see-ITR/MDL-SBJNTCV-N.SFX DEP-
'invisible' (Ramamurti 1933b:107)
- (7) *agginnen ə-*
ag-gin-n-e-n ə-
NEG-see-ITR/MDL-SBJNTCV-N.SFX DEP-
'invisible' (Ramamurti 1933b:107)

The form in (5) has the most basic and straightforward form, with the simplex form of the stem ‘see’ *gid3* preceded by the negator *ad-* and followed by the intransitive/middle suffix *-n-* and the SBJNCTV (negative non-past) marker *-e-* and then this structure nominalized by the *n-*suffix and projecting the dependent marker *ə-* onto the following modified noun, yielding *adgid3nen ə-*.

The form in (7) is underlyingly identical to this structure. The form in (7) differs only in phonological realization due to assimilation of consonants at morpheme boundary which is a common process attested in Sora. Thus, /ad-gid₃-n/ shows both a progressive assimilation /d-g/ > [g-g] and a regressive assimilation /d₃-n/ > [n-n]. These changes result in a realized surface form as *agginneŋ* ə-.

The form in (6) is also nearly identical in form to those in (5) and (7). The major difference is that rather than the simplex stem for 'see' the derived causative stem in *ab-gidʒ* forms the basis of this variant. As a now vowel-initial stem, this requires one of the prevocalic allomorphs of the finite negator, here realized as the prefix *adn-*. To this is added, as in the other two forms, the intransitive/middle suffix, the SBJNTCV, the *n*-suffix and ultimately this word will project the DEP prefix onto a following modified noun. These processes thus yield the surface form *adnabgidʒnen ə-*. While not really impacting the sense of 'invisible' the causative stem suggests that etymologically this form meant something like 'unable to be made visible'.

2.2 NEG-Stem:AUGM -SBJNTCV(-N.SFX DEP-)

The next set of forms presented here are also broadly speaking of the same formal type using a finite negator. The difference here is that the lexical stem is derived by a stem augment of unclear semantics. The stem augment is *-ta*. There are various related pairs of stems in Sora with and without the augment. A selection of these is offered in (8)

- (8) *ben* 'hunt; beat (game)' (Ramamurti 1933a:56)
benta 'hunt, engage in hunting' (Ramamurti (1933a:57)
- d̥im* 'conceal oneself, hide, take a position' (Stampe and Donegan no date #23301-L)
d̥imta 'watch' (Stampe and Donegan no date #23330-Z)
 'night guard' (Field Notes: Sessa Biraj Sora 868)

With the stem 'see' the augment itself has a quasi-passive/capabilitive sense and frequently is most felicitously translated as 'appear'. The subject is not an actor in such forms, and thus takes the undergoer series of inflections in Sora where what functions as object markers in active forms encodes the person/number of the subject with undergoer subjects; see (9).

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In our journey through words meaning ‘invisible’ in Sora at least two forms have chosen this path. Really, they are the same form, just showing phonological variants of the stem. While phonemically contrastive, there is considerable variation in height in any one individual realization of a particular lexeme, e.g., between *i* and *e* as in *bertenai* vs. *birtinai* ‘I will speak, say’. The stem for ‘see’ is no exception in this regard. While most speakers have a lax or tense high front vowel in this stem, some have the tense mid front vowel instead. Formally speaking these forms have the etymological finite negator prefix attached to the passive/capabilitive stem, and then with the by now familiar SBJNTCV, the *n*-suffix (and when used as a modifier projects the DEP prefix onto the following modified noun). These forms are seen in (14)-(15).

- (14) *aggrɪɪdʒen ə-*
 ag-g/ɪɪ/ɪdʒ-e-n ə-
 NEG-see/PSV.CAP/-SBJNTCV-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)
- (15) *aʔgeʔedʒen ə-*
 aʔ-geʔedʒ-e-n ə-
 NEG-see/PSV.CAP/-SBJNTCV-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)

3 Forms with the etymological nonfinite or nominalized negator

Turning now to the next set of related forms, we find words meaning ‘invisible’ in Sora with not the etymological finite negator, but rather the non-finite or nominalized negator in *ir-/er-*, which are simply variant realizations of the same morpheme. In one common usage, the prefix attaches to a bare stem to create a negative of that (16).

- (16)
- | | | |
|-----------------|---------------------|----------------------------------|
| <i>er-galam</i> | ‘unknown, ignorant’ | (Ramamurti 1933a:89) |
| <i>ir-galam</i> | ‘ignorant’ | (Field Notes, Odisha, Lanjiasor) |

One form meaning ‘invisible’ in Sora reflects this broad structural subtype as well, where the prefix attaches directly to the stem (17).

- (17) *ergidʒ*
er-gidʒ
NEG.NMLZR-see
'invisible' (Ramamurti 1933b:107)

A related form to this consists of the same negator but attached to the stem form augmented by *-ta* (which the reader may remember can in this combination also mean ‘appear’, thus the form might etymologically mean something like ‘unappearing’). The form in (18) shows this pattern but followed by the *n*-suffix and projecting the DEP suffix onto the following modified noun.

- (18) *ergittan ə-*
 er-gitta-n
 NEG.NMLZR-see:AUGM-N.SFX
 ‘invisible’ (Ramamurti 1933b:107)

In the following sections we present the other forms meaning ‘invisible’ in Sora that use this negative prefix.

3.1 stem augmented by /ʔ/

In addition to the bare stem and the stem augmented by *-ta*, there is also the derived passive/capabilitive stem formed by glottal stop infixation. Three forms meaning ‘invisible’ in Sora use this stem. One such form shows the negative prefix followed by the infixed stem form. This is followed by the now familiar sequence of the *n*-suffix and the DEP prefix projected onto the following modified noun when used in such a syntactic configuration (19).

- (19) *ergɪɽɪdʒen ə-*
 er-g/ɪɽɪdʒ-en ə-
 NEG.NMLZR-see/PSV.CAP/-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)

The form in (20) below is noteworthy in several ways. Like the form in (19) the stem used in this is the passive/capabilitive using the infixing glottal stop. The form in (20) also has an incorporated noun, a reduced monosyllabic bound allomorph which most nouns in Sora have in addition to their typically disyllabic syntactic free form. Compare the combining form *-mad* ‘eye’ in (20) with the attested free forms of ‘eye’ in Sora *əmad* (which also means ‘his/her eye’) or *moʔod*; see Anderson and Gomango (2022) for more details. Noteworthy in the form in (20) is that there is no *n*-suffix, but the form nevertheless projects the DEP prefix onto a following modified noun.

- (20) *ergi?id3mad ə-*
 er-g/ɪʔ/ɪd3mad ə-
 NEG.NMLZR-see/PSV.CAP/-eye DEP-
 ‘invisible’ (Ramamurti 1933b:107)

The form in (20) must therefore mean something like ‘non-visible to the eye’ etymologically. The form in (21) shows a different configuration but also uses the passive/capabilitive stem marked by glottal stop infixation. In addition to this and the negative prefix, the form in (21) also uses a non-finite suffix *-lebe*, that when in combination with the NEG.NMLZR prefix *er-* typically creates a form meaning ‘without Verbing’. In this form however, it is a modifier derived from such a structure and has the expected *n*-suffix and the expected projection of the DEP prefix to the following modified noun. In the form in (21) there has been a full assimilation of the final C of the stem to the initial C of the affix yielding *[l-l]*. Etymologically this form must have meant something like ‘without having been able to be seen’.

- (21) *ergililleben ə-*
 er-g/ɪʔ/ɪl-lebe-n ə-
 NEG.NMLZR-see/PSV.CAP/-NFIN-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)

An example of another formation using the *er...-lebe* structure, albeit in a lexicalized form is seen in (22) which etymologically must have meant something like ‘without returning’ or ‘without turning back on the road’.

- (22) *er-dajer-god-lebe*
NEG-backwards-road-NFIN
'straight, direct(ly)'
(Ramamurti 1933b:220)

3.2 NEG.NMLZR + /n/

Another set of forms using the negative nominalizing prefix in Sora shows the prefix attaching not to the bare, *ta*-augmented or /ʔ/-augmented stem, but rather one that takes the ‘nominalizing’ infix /n/. Many words with this infix function syntactically as nominal forms in their usual usages but may also be used verbally. An example of the former type is seen in (23)

- (23) *ir-g/an/aʔ* ‘uncut’ < gad ~ gaʔ (Field Notes: Singrihan, Assam)
[NEG.NMLZR-cut/NMLZR/]

In Sora, negated verbs with first person subject form in the past often undergo this process and appear with this negator and the /n/ infixed after the first consonant of the stem; see (24).

- (24)
- | | |
|---|---|
| i. <i>ergəna</i>
er-g/ən/a
[NEG(.NMLZR)-eat/NMLZR/]
‘I did not eat’
(Field Notes: Sessa, Assam)
< ga | ii. <i>ergənej</i>
er-g/ən/ej
[NEG(.NMLZR)-see/NMLZR/]
‘I did not see, overlooked’
(Field Notes: Koilamari, Assam)
< gej |
|---|---|

One form meaning ‘invisible’ in Sora shows this broad structural type (25). As a modifier (or noun) and not functioning to instantiate a predicate, the form unsurprisingly appears with the *n*-suffix but is otherwise identical to the predicative uses seen in (24ii) albeit in a phonologically predictable allomorph of the stem (where *j* ~ *dʒ* alternate).

- (25) *ergənidʒən*
er-g/ən/idʒ-ən
[NEG(NMLZR)-see/NMLZR/-N.SFX]
‘what has not been seen, unseen, something invisible, invisible’
(Ramamurti 1933 [1986]:32)

One other form meaning ‘invisible’ in Sora is of this structural type as well. In (26) we see this form that is derived from the *ta*-augmented stem.

- (26) *irgənita(n)*
ir-g/ən/ita(n)
NEG.NMLZR-see/NMLZR/:AUGM
‘invisible’ (Field Notes, Odisha)

4 Forms prefixed with *anab-*

The prefix sequence *anab-* typically is either a nominalization of a causative or a negative of a causative or means ‘next’ as in *anabbijo* ‘day after tomorrow’ < *bijo* ‘tomorrow’, or encodes ordinal numerals, but in certain lexemes it carries negative scope without a causative sense. An example of this negative function is seen in (27).

- (27) *anabasujum(ən)* ‘cruel’ (Ramamurti 1933b:55) cf. *asujum* ‘mercy’
anabraduen ə- ‘innutritious’ (Ramamurti 1933b:112) cf. *radu* ‘strong’

It is this negative function that is found in the words meaning ‘invisible’ in Sora that entail use of this prefix. The simplest form of this type consists of the prefix and the verb stem to which is added the INTR/MDL suffix *-n*, the SBJNTCV marker *-e* and then to this is added the functionally opaque *n*-suffix

and the form, as many previously described ones likewise do, projects the DEP prefix onto the following modified noun (28). Note that there is also assimilation of the final stem consonant in 'see' to the following consonantal suffix (* d_3 - $n > nn$).

- (28) *anabginnen* ə-
 anab-gin-n-e-n ə-
 NEG-see-ITR/MDL-SBJNTCV-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)
 /*dʒ-n/ > [nn]

A somewhat expanded version of this similar template can be found in (29)–(30). Here we find the same negative prefix *anab-* attaching to the stem to which has been added the reflexive/passive suffix *-dəm*, with variable assimilation of the stem-final C to the initial C of the affix: In (29) the assimilation is seen but in (30) this is lacking. To this stem is added the nominalizing suffix *-na*, to which is attached the *-n*-suffix, which triggers use of the DEP prefix on the following modified noun.

- (29) *anabgiddəmnən ə-*
anab-gid-dəm-na-n ə-
 NEG-see-RFLXV-ITR/MDL-NMLZR-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)
 /*dʒ-d/ > [dd]
- (30) *anabgidʒdəmnən ə-*
anab-gidʒ-dəm-na-n ə-
 NEG-see-RFLXV-ITR/MDL-NMLZR-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)

Other words with a similar function of *-dam* in Sora as a marker of reflexivity, passiveness or otherwise some type of low transitivity or detransitivization are offered in (31).

- (31) i. *u[ʔ]ma-dəm-n-a*
bathe-RFLXV-ITR/MDL-IMP
'bathe yourself'
- ii. *absəjem-dəm*
appease/console-RFLXV
'be appeased, be consoled'

Other words that exhibit the nominalizer *-na* (which is only found with intransitive or detransitive forms) in Sora are offered in (32)

- (32) *anna* ‘abstention, abstaining from’ < *an* ‘abstain’ (Stampe and Donegan no date #11641)

5 Forms with *əpaŋ* (+/-) able to be X-ed/ easily X-able

Another formal set of related forms that encode the concept ‘invisible’ in Sora uses a pre-posed element that is variably prosodically free or bound of the shape *əpaŋ* that adds the sense of either ‘able to be Verb-ed’ or ‘easily Verb-able’. In general, *əpaŋ* can attach to a bare stem or a stem with the infix /n/ which typically serves as a nominalizer, but such forms may function verbally as well. Examples of the two formal subtypes are found in (33)-(34).²

² As with the dependent prefix, and indeed likely due to the same reason, that etymologically this might indeed be identical with the DEP prefix, in the speech of O. Gomango this is realized as *apan*.

- (33) *əpaŋ baŋsa* ‘curable’ (Ramamurti 1933b:56)
əpaŋ baŋsa
 EASILY.ABLE cure/good
- (34) i. *əpaŋ abtənuḃ* ‘divisible’ (Ramamurti 1933b:68)
əpaŋ abt/ən/ub
 EASILY.ABLE divide/NMLZR/
- ii. *əpaŋ bənaŋsa* ‘curable’ (Ramamurti 1933b:56)
əpaŋ b/ən/aŋsa
 EASILY.ABLE cure/good/NMLZR/
- iii. *əpaŋ+gənalāmən ə-* ‘easy to understand’ (Ramamurti 1933b:42)
əpaŋ g/ən/alam-ən ə-
 EASILY.ABLE know/NMLZR/-N.SFX DEP-

It may also attach to a stem augmented by the RFLXV suffix *-dəm* (followed by the nominalizing suffix *-na*) (35) or a reduplicated stem combined with the */n/* infix (36).

- (35) *əpaŋ abɲamaŋdəmna(n)* ‘inflammable’ (Ramamurti 1933b:111)
əpaŋ abɲamaŋ-dəm-na(-n)
 easily.able inflame-rlxv-nmlzr-(n.sfx)
- (36) *əpaŋ dəniŋdɪŋ* ‘easy to cook’ (Ramamurti 1933 [1986]:12)
əpaŋ d/ən/iŋdɪŋ
 EASILY.ABLE ~cook/NMLZR/

Like ‘invisible’ other related word families can be found using this element in different derivational configurations. Note in this regard the following forms that all can be translated in English as ‘digestible’ (37). In (37i) we see the *əpaŋ* used with a passive stem marked by the glottal infix. In (37ii) the same stem is augmented by the */n/*-infix, while the form in (37iii) shows the same stem to which is added the *-dəm-na* sequence.

- (37) i. *əpaŋ le/ʔe/m* (Ramamurti 1933b:63)
 EASILY.ABLE digest/PSV.CAP/
 ‘digestible’
- ii. *əpaŋ l/ən/e/ʔe/m*
 EASILY.ABLE digest/NMLZR//PSV.CAP
 ‘digestible’
- iii. *əpaŋ leʔemdəmnan*
 EASILY.ABLE digest/PSV.CAP-RFXLV-ITR/MDL-/N.SFX DEP-
 ‘digestible’

Related to this element is the explicitly negative prefix *erpaŋ* which includes the negator prefix *er-*. This element may also attach to various stem types, including basic (38), ones nominalized by the suffix *-na* (39) or to a stem inflected with the SBJNTCV as well (40). Like

previous forms, the forms in (39)-(40) also show the *-n*-suffix and the DEP prefix projected onto the following noun.³

- (38) *erpaŋ-galam* ‘subtle, hard to grasp’ (Ramamurti 1933b:222)
 er-paŋ-galam
 NEG.NMLZR-EASILY.ABLE-know
- (39) *erpaŋ barnen ə-* ‘unchangeable’ (Ramamurti 1933b:240)
 er-paŋ bar-n-e-n ə-
 NEG.NMLZR-EASILY.ABLE change-ITR/MDL-SBJNTCV-N.SFX DEP-
- (40) *erpaŋ dernan ə-* ‘incredulous’ (Ramamurti 1933b:109)
 er-paŋ der-na-n ə-
 NEG.NMLZR-EASILY.ABLE believe-NMLZR-N.SFX DEP-

At least one form meaning ‘invisible’ in Sora is similar to the shape of the form in (40) but with the addition of the RFLXV suffix *-dəm* to yield the necessary passive/detransitive semantics of the target (41). As in many previously presented forms, there is assimilation of the stem final C with the suffix initial one.

- (41) *erpaŋgiddəmnən ə-*
 er-paŋ-gid-dəm-na-n ə-
 NEG.NMLZR-EASILY.ABLE-see-RFLXV-NMLZR-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)
 (**dʒ-d* > *dd*)

A somewhat different type of formation can be seen in the form in (42). The same prefix sequence is found but there is actually an additional negative prefix used. The verb stem is also reduplicated and the final *-C* of the prefix assimilates to the initial C of the verb stem. Otherwise, the final sequence shows the same set of features and assimilation process as the form in (41).

- (42) *erpaŋaggiggiddəmnən ə-*
 er-paŋ ag-giggid-dəm-na-n ə-
 NEG.NMLZR-EASILY.ABLE NEG-~see-RFLXV-NMLZR-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)
 (Note */*ad-gidʒgidʒ-dəm*/ > *aggiggiddəm*) [NEG-~see-RFLXV]

6 Forms with *roŋ* ... -ted, *eroŋ*...ted, *erroŋ*

We now turn to another family of forms that uses one of several derivational elements that translate ‘able to Verb-’ or ‘easily Verb-able’ combined with a negative scope element, either the negative copular form *ted* with a form of this derivational element *roŋ* or its longer allomorph *eroŋ* together, or with negative nominalizing prefix *er-* realized as *erroŋ*. First, we offer an example of a non-negative use of *roŋ* as a point of comparison in (43-4), where the form is used with the bare stem (43), or a participial verb form (44).

- (43) *roŋ-baŋsa* ‘curable’ (Ramamurti 1933b:56)
 roŋ-baŋsa
 ABLE-cure

³ As with *er-/ir-* (which is always *ir-* for O. Gomango), this prefix is typically realized as *irpaŋ* in the speech of the Sora co-author.

(Anderson 2006) where it encodes the relevant TAM and subject properties and is used following a nominalized lexical verb (49) or a converb marked form of the lexical verb (50).⁴

- (49) i. *nen=dʒa dɪndɪn-na-n rabti-t-ai*
 I=EMPH ~cook-NMLZR-N.SFX CAP-NPST-1ACT
 ‘I can also cook’
 (Ramamurti 1933a:225)
- ii. *dʒoŋdʒoŋ-an aʔ-rabti-l-ai*
 ~measure-N.SFX NEG-CAP-PST-1ACT
 ‘I could not measure it’
 (Field Notes: Assam (LH), Sessa_Biraj_Sora_190)

- (50) *dʒoŋ-le a-rabti-ai*
 measure-CV NEG-CAP-1ACT
 ‘I cannot measure it’
 (Field Notes: Assam (LH), Koilamari_Joyonti_Sobor_423)

However, it can also occur both uninflected and preceding the lexical verb in a configuration called LEX-headed in the typological literature (Anderson 2006); see (51).

- (51) *anin rabti dɪn-te*
 3PRON CAP cook-NPST
 ‘s/he can cook’
 (Ramamurti 1933a:225)

It may also occur in a doubly marked negative structure where both auxiliary and lexical verb are marked for negation, but only the lexical verb takes the subject marking (52) in a configuration called the split/doubled inflectional pattern (Anderson 2006).

- (52) *nen ar-rabti adʒ-dʒum-ai dinne ə-pʊpʊ*
 I NEG-CAP NEG-eat-1ACT so.much POSS-bread
 ‘I am unable to eat so much bread’
 (Ramamurti 1933a:40)

In its LEX-headed configuration, this element can appear before a verb marked by various of the strategies examined above in forms that translate in English as ‘un-X-able’. Such subtypes of formations using *rabti* can appear with the negative *anab-* prefix, the ITR/MDL suffix and SBJNTCV, and followed by the *n*-suffix (with the DEP prefix projected onto the following noun) as in (53).

- (53) *rabti anabɪmnən ə- ‘inapprehensible’* (Ramamurti 1933b:108)
 rabti anab-ɪm-n-e-n ə-
 CAP NEG.DERIV-feel-ITR/MDL-SBJNTCV-N.SFX DEP-

It may also appear with the negative prefix *er-/ir-*, a stem followed by the RFLXV/PSV *-dəm*, then nominalized by the detransitive nominalizer *-na*, and followed by the by now familiar *n*-suffix and DEP prefix on the following noun.

⁴ Variation is attested in Ramamurti as well, but O. Gomango generally pronounces this auxiliary as either *rəpti* or *rapti*.

- (54) *rabti erabbaṇṣadəmnan ə- 'incurable'* (Ramamurti 1933b:109)
 rabti er-abbāṇṣa-dəm-na-n ə-
 CAP NEG.NMLZR-make.good/cure-RFLXV-SBJNTCV-N.SFX DEP-

Three forms in our corpus meaning ‘invisible’ have an etymological structure of *rabti* in the LEX-headed configuration followed by a negative marked lexical verb. One of these involves the finite negator (appearing in a degeminated allomorph as simply *a-*) the ITR/MDL suffix *-n-* and SBJNTCV, with the stem final C assimilating to the ITR/MDL affix, which in turn is followed by the *n*-suffix and the following modified noun appearing in the DEP-marked prefixed form (55).

- (55) *rabti aginnen ə-*
 rabti a(g)-gin-n-e-n ə-
 CAP NEG-see-ITR/MDL-SBJNTCV-N.SFX DEP-
 (Note **agg* > *ag*, **dʒn* > *nn*)

Another example finds *rabti* used with a form marked by the negative nominalizing prefix and followed by the detransitive nominalizing suffix *-na*. As above, the stem-final consonant assimilates to this affix initial C. This sequence also has the *-n*-suffix and the DEP prefix projected onto the following noun as many other forms mentioned above also have (56).

- (56) *rapti erginnan ə-*
 rapti er-gin-na-n ə-
 CAP NEG.NMLZR-see-NMLZR-N.SFX DEP-
 'invisible' (Ramamurti 1933b:107)
 (**dʒn > nn*)

This specific configuration occurs relatively commonly in Sora modifiers that correlate to forms meaning ‘un-X-able’ in English translation; see (57).

- (57) *rabti erabamduɣna(n)* ‘inextricable’ (Ramamurti 1933b:111)
 rabti er-abamduɣ-na(-n)
 CAP NEG.NMLZR-extract-NMLZR-N.SFX

8 INF + ad-de ‘not be able’

One last sub-type of formation that can mean ‘invisible’ in Sora consists of a former auxiliary verb construction involving a ‘finite’ negative form of the modal auxiliary *de-* (realized as *ad-de*) preceded by an infinitive form of the lexical verb. The infinitive in Sora is formed by a circumfix consisting of the dependent prefix *a-* and a non-finite suffix *-ben/-bin/-ban/-ban*, i.e., *a-XXX-ben*, e.g., *a-dzum-ben* [DEP-eat-INF] ‘(in order) to eat’ (Ramamurti 1933a:2, 57). One means of encoding a capabilitive function in Sora is an auxiliary verb construction using the auxiliary *adde* with the infinitive form of the lexical verb (58).

- (58) *kudu-n* *tagedəm-ən* *asən* *rabti* *ə-ga-ben* *ad-deʔ-e*
porridge-N.SFX hot:ADJ-N.SFX for CAP DEP-eat-INF NEG-AUX-
SBJNTCV
‘as the food is hot it is not possible to eat it’
(Ramamurti 1933a:225)

Like the other forms above that use the ‘finite’ negator, the auxiliary appears in the SBJNTCV form *-e* and is followed by the usual nominalizing morphology consisting of the sequence of the *-n*-suffix and accompanied by the DEP prefix on the following noun.

- (59) *əgidʒben addeen ə-*
 ə-gidʒ-ben ad-de-e-n ə-
 DEP-see-INF NEG-AUX-SBJNTCV-N.SFX DEP-
 ‘invisible’ (Ramamurti 1933b:107)

9 Summary

Obviously, there are a wide range of formal means available to speakers of Sora to encode the concepts of negation, capability (and passivity) such that different paths can converge on a similar meaning. We have identified more than a dozen different ways to use the derivational and inflectional apparatus of the language to get to the meaning ‘invisible’. While this is indeed an extreme example of the derivational genius of Sora, there are other ‘word families’ of this sort converging on a single semantic target. In (60)–(61) two other minor families of formally and semantically related forms are offered to demonstrate this using the stems *ud* ‘move’ and *bar* ‘change’. All use different forms of the apparatus presented above, e.g., the ‘finite’ (*aC-*) and ‘non-finite’ (*er-/ir-*) negative prefixes various capabilitive elements (*erpanj*, *rabti*), itr/mdl (*-n-*) and rflxv (*-dəm*) suffixes, nominalizing suffixes (*-na*) and infixes (*/n/*).

- (60) *er-ud-na-n* ə-
NEG.NMLZR-move-NMLZR-N.SFX DEP
'immobile'
(Ramamurti 1933b:105)
- an-ud-n-e-n* ə-
NEG-move-ITR/MDL-SBJNTCV-N.SFX DEP
'immobile'
(Ramamurti 1933b:105)
- erpaŋ-ud-dəm-na-n*
NEG.EASY.ABLE-move-RFLXV-NMLZR-N.SFX
'immobile'
(Ramamurti 1933b:105)
- (61) *rabti er-bar-na-n* ə-
CAP NEG-change-NMLZR-N.SFX DEP
'immutable'
(Ramamurti 1933b:106)
- rabti er-abb/ən/ar-ən* ə-
CAP NEG.NNLZR-CAUS:change/NMLZR/-N.SFX DEP
'immutable'
(Ramamurti 1933b:106)
- ab-bar-n-e-n* ə-
NEG-change-ITR/MDL-SBJNTCV-N.SFX DEP
'immutable'
(Ramamurti 1933b:106)

While the inflectional morphosyntax and syntax of Sora (and really all Munda languages) are almost all clearly of secondary origin, the derivational system of this language is often very archaic looking, with the elements involved often very clearly cognate to forms found across several or most

Austroasiatic branches. But even some of the inflectional characteristics may have archaic features: Preverbal negation is characteristic of Austroasiatic as a whole (Jenny et al. 2015:107). Moreover, another family characteristic is the use of multiple negators, albeit none project back to proto-Austroasiatic in form (Jenny et al. 2015:107-8). With respect to the negators used in Sora, negative forms consisting of a vowel + *r* are attested in sister languages to Sora, e.g., *or-* Gorum *ar-* Juang, but it is not clear if the elements are cognate *per se* but may include a cognate morpheme. Also, it is possible that these are ultimately relatable to finite negator as *d ~ r* alternations are common in the region. Regardless, it is possible that the Sora negative *aC-* < **ad-* is cognate with Car Nicobar *ʔət*. With regards to derivational morphology, both the use of reduplication (Jenny et al. 2015:42ff.) and *n*-infixation (Jenny et al. 2015:46-7) are widespread pan-Austroasiatic features.

While Sora is a language with many special features and stands out in numerous ways from not just non-Munda Austroasiatic languages but other Munda ones as well, much of what has been described above utilizes old morphological process available to most AA languages. This leads one to believe whether windows into such derivational flexibility reflect an older system that may have reflected what the derivational apparatus of older stages of AA may have been like—lacking the elaborate TAM and person encoding of course that are found in Munda, but active in lexical development—before waves of MSEA features washed over the core AA area. This is in part due to that nothing in the Sora data presented above in any way reflects South Asian morphological typology in these formations but also that reduplication, preverbal negation and /*n*/infixation are all old features of Austroasiatic. Resolving this issue of course remains a task for the future.

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