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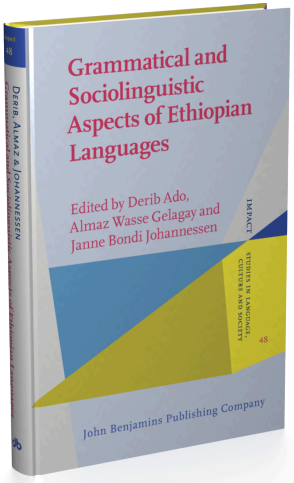


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# Verbal derivations in Inor

Tsehay Abza
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This paper is concerned with the verbal derivation of Inor (which is the group's self-designation), formerly called Ennemor, its Amharic name, a Peripheral Western Gurage language in the southern part of Ethiopia. Conducting research on this topic is a task well worth doing, as a detailed work has not been carried out on this area. Verbal derivation applies to the verb stem and has the function of increasing or decreasing arguments, as well as conveying intensity, reciprocity or reflexivity. It may do so by affixation or by altering the stem's morpho-phonological properties. However, not all root morphemes of a simplex stem may apply to all the possible derivational processes. The linguistic data have been collected from consultants. The findings show that affixes that are involved in the verbal derivational processes in Inor are the passive prefix *tə-*, and the causative prefixes *a* – and *at-* that are attached to a template (Berhanu & Hetzron 2000: 39–44 for Inor, Rose 2007: 411 for Chaha). Another group of derivational morphemes (internal root-morpheme modification) increases the number of consonants vis-à-vis the simplex by reduplication of root-consonants, and insertion of an additional vowel *a* after the first or second root-consonant in combination with the passivizer *tə-*. The findings of this study also show that certain derivations are only applicable to a restricted set of root-morphemes.

**Keywords**: verb, derivation, Gurage, language, Ethiopia

## 1. Introduction

Inor is spoken by 167,745 people (CSA 2008: 75), who live in the Gurage Zone of the Southern Nations, Nationalities and People Regional State. It is one of the South Ethio-Semitic languages grouped under Peripheral Western Gurage along with Ener, Endegagn and Gyeto (Hetzron 1977: 17).

The main objective of this study is to provide a description of the verbal derivation of Inor. Based on a morpho-phonemic process that changes a root-morpheme into a verb, verbal derivation involves morpho-syntactic features of the root-morpheme

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like changing the number of arguments (e.g. causative and passive), intensity, reciprocity and reflexivity of the action. But not all root-morphemes of a simplex stem apply all the possible derivational processes. This means that there are certain root-morphemes that are restricted to specific derivations. The simple verb stem *dəgəs-* 'make a feast', for instance, occurs only in one derived form, i.e., the indirect causative *addegəs-* 'cause to make a feast'. Furthermore, a large number of verbal stems occurring with derived forms lack a simplex counterpart.

The derivational analysis in this paper is presented as follows: a brief background of Inor verbs is discussed in Section 2. Following derivation of causatives (including adjutative) in Section 3, medio-passive/reflexive is presented in Section 4. Sections 5 and 6 deal with frequentative and reciprocal derivations, respectively. Section 7 discusses the bound roots with lexicalized affixes, and the final section concludes the paper.

### 1.1 Methodology

The research method used in this paper is qualitative. The data were gathered in spring 2015 and 2016 from two male native speakers of Inor, Tigistu Muraga (35 years old) and Nasir Awol (30 years old) and one female native speaker, Weynishet Haile (20 years old), who live near Gunchire, through elicitation in both group and individual sessions. Recordings of natural conversation or free texts and interviews were also used to supplement the elicited data. Further, an exploration of secondary data available through the published literature has been made as a base for the present study and for cross-checking.

## 2. A brief background of Inor verbs

Semitic languages are morphologically non-concatinative languages in that a verb consists of discontinuous consonantal-roots between which vowels can be inserted (Lipinski 1997: 201; Moscati 1980: 71; Rose 1997: 11; Rose 2007: 404; Ullendorff 1971: 37; Goldenberg 1994: 29). These consonantal roots convey the lexical semantics of an entry, and a vowel pattern or template carries grammatical information (Ullendorff 1955: 33; Rose 2007: 403–404; Goldenberg 1994: 29). Hence, verbs in Semitic are analyzed as consisting of two morphemes: a root and a pattern combined to form a verb, neither of which can be used in isolation to form that actual verb (Goldenberg 1994: 29). Normally, Semitic verbs contain triconsonantal roots (cf. Hetzron 1977: 76), which are represented by the symbol C in the template. For example, in the template, $C_1$, $C_2$ and $C_3$ represent the first, second and third consonants of the verb, respectively.

Verbs in Inor, as in any other Semitic language, involve two layers: lexical consonantal root and grammatical template. These verbs distinguish three conjugations: perfective, imperfective and jussive/imperative, each with its own defining characteristics. That is, the base of each conjugation has a distinct root and pattern or template containing CV-slots, whereby the C-slots are filled in by the corresponding number of root-morphemes (consonants)[1] and the V-slots by vowel melodies of various qualities. Each base obligatorily combines with a specific set of subject agreement marker. For instance, the template for expressing the perfective with triconsonantal root-morphemes is $C_1əC_2əC_3$-. By filling in the empty C-slots with a concrete root-morpheme, like √*dng* 'hit', the perfective base **dənəg*- of the verb 'hit' is formed. The imperfective and jussive templates are -$C_1əC_2C_3$ and -$C_1C_2C_3$ with the corresponding bases *-*dərg* and *-*dɨrg*, respectively. In each conjugation, the template can further be of two types: simplex and complex or derived. The simplex verbal stems are formed from the template having simple CV-slots, while a template involving formatives and internal modifications derive complex verb stems.

The majority of Inor root-morphemes consist of three consonants. There also exist many root-morphemes containing two and four consonants, though most of the root-morphemes with two consonantal roots were originally derived from trilateral roots which lost a weak consonant. However, in such weak verbs there is a vocalic element with a radical function. For instance, the root-morphemes for the verb *bekə*- 'weep' are √*bkə*, but the Semitic root for this verb is √*bkj*.[2] Roots having more than four consonants occur very rarely.

In Ethio-Semitic languages, verbs are most frequently classified into types: type A, type B and type C. The classification is based on the quality of the vowel occurring between the first two radicals and gemination of the originally penultimate consonant with three consonantal roots if the language allows gemination (Hetzron 1972, 1977: 70; Rose 1997: 11). However, gemination cannot be used as a defining feature in classifying Inor verbs, as it belongs to non-geminating languages.[3] However, while Inor has lost gemination, the alternation between consonants in the stem, such as voicing or *k*/*x* or *n*/*r*, is a reflection of former gemination, and also

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**1.** In weak verbs, the C-slot can also be filled in with vocalic radicals. Also, see footnote 2.

**2.** Weak radicals in many Semitic languages include the approximants w and y and the post-palatal (velar, pharyngeal and glottal) consonants x, ʔ, ʕ, h, and ħ. When a post-palatal weak consonant occurs as final consonant in a Common Semitic (CS) root, it is always realized as a final root-vowel * in Wolane (Meyer 2006: 52; Bergsträßer 1989[1928] cf. Meyer 2006: 64). The same fact is reported in Inor verbs of the same sub-type.

**3.** In some Western Gurage dialects (Chaha, Inor, Gumer), geminates were devoiced and then simplified, leaving stem alternations where related dialects have geminates (Rose 1992, 1997: 13). Also Rose (2006: 848) groups Inor under non-geminating languages along with Chaha and Gyeto.

serves as a definitional feature for verb type classification (see Hetzron 1977: 70; Berhanu & Hetzron 2000: 24; Völlmin 2017: 49 for Gumer). For example, the verb *səpər-* 'break' is type A because the *p*, which is originally **bb*, only appears in the perfective, but not in the imperfective or jussive, as in *jɨsəβɨr* or *əsɨβɨr*, respectively. This can be compared with the type B verbs, where the *p* appears throughout the conjugations: *ʤəpəβ-/jɨʤəpɨβ/ədəpɨβ* 'block'. The same pattern is found for other voicing pairs and for *n*/*r*. However, not all type A verbs show voicing alternations. Some have a consistent voiceless consonant throughout the conjugations, and are assumed to have an underlying voiceless consonant, such as /t/, /t'/, /k/, /k'/, as in *ʔətər-/jɨʔətɨr/ɨʔɨtɨr* 'kill'. A few type A verbs have a consistent voiced consonant in all verb forms, as in *dəgər-/jɨdəgɨr/ədəgɨr* 'be tight (plant)'; *kəbər-/jɨkəbɨr/əkəbɨr* 'joke' (see Berhanu 1996: 60, Berhanu & Hetzron 2000: 28). In the case of such verbs with no consonant alternations, the vowel quality serves as a criterion. Another diagnostic in the classification of verbs, particularly Western Gurage languages, is palatalization, i.e., palatalization occurs if the initial root consonant is palatalizable (a coronal obstruent or a velar), otherwise palatalization of the penultimate consonant if velar;[4] if neither of these conditions are met, the front vowel *e* appears in the first vocalic position of the stem in the non-geminating languages (Hetzron 1977: 71; Rose 1997: 14, 2007: 405). Berhanu and Hetzron (2000: 28) also indicate that if there is no palatalizable consonant, the subsequent vowel of a type B verb assumes palatality: *e/i*. Inor data also confirms their generalization. These palatal elements never appear in the imperative/jussive forms (*ʒəʔərə/jɨʒəʔɨr/əzəʔɨr* 'split'), but they do appear in the perfective and imperfective.[5]

Furthermore, vowels in the jussive/imperative characterize classification of verbs. The jussive/imperative template shows a distinction between type A and type B. Type A has a transitive CCC vs. intransitive CCəC distinction, whereas type B is CəCC.[6] The vowelless template originally marked transitive verbs with an active subject, while the template with the vowel *ə* occurred with intransitive verbs or verbs with an inactive, neutral or patient subject (Yohannes 2015: 116). Besides, type C is characterized by both the vowel *a* and the consonant alternations

4. Inor has the front vowel with velars, too. Berhanu (1997: 100), cf. Rose 1997: 14, footnote 4, maintains this is a C$^{y}$e sequence. The present data also confirms this idea.

5. The second reviewer of this paper stated that neither the *e* nor the palatalization appears in the imperative/jussive forms. Indeed, this works for triconsonantal roots. However, in contrast to tri-consonantal and majority of bi-consonantal roots of type B, a number of bi-consonantal roots of this type have the vowel *i* instead of *e* in the imperfective and *i* or *e* instead of *ə* in the jussive/imperative. Also see Berhanu & Hetzron (2000: 28).

6. From diachronic point of view, Western Gurage maintains a Proto-Ethio-Semitic distinction between intransitive (CCəC) and transitive (CCC) jussives (Rose 1997: 12; Leslau 1992: 484).

if applicable. The imperfective has the strong alternant. Whether the jussive has the weak alternant or not seems to depend on the verb. If it is n/r, the *r* is found.

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Type A | səpərə | j-səβir | əsiβir | 'break' |
| | dənəgə | j-dərg | ədirg | 'beat' |
| | zəkərə | j-zəgir | əzigər | 'jump' |
| Type B | dʒəpərə | j-dʒəpir | ədəpir | 'finish' |
| | mezərə | j-ɱezir | əɱəzir | 'count' |
| | fenəgə | j-fenig | əfənig | 'carry' |
| Type C | zapətə | j-zapit | əzapt | 'lose one's way' |
| | ʃakədə | j-ʃagid | əʃagid | 'distribute' |
| | banərə | j-banir | əβarir | 'demolish' |

Type D, which is relatively rare, is characterized by a labialized consonant in the initial position and a vowel *ə* between the first two consonants in the jussive in Chaha/Ezha (cf. Rose 1997: 16). Rose (2007: 406) also states that type D has labialization, and the vowels characteristic of type B, but shows consonant alternations of perfective and imperfective vs. jussive, whereas type B has consistent voiceless or *n* throughout, evidenced as *bʷənəs*/*jiwəns*/*jəwərs*. On the other hand, verb type D and F of Meyer (2006: 59–61), are characterized by the vowel *ō* following the first root-consonant in the perfective and imperfective paradigms, but *u* in the jussive/imperative and the vowel *u* following the first root-consonant in all templates, respectively. According to him, with certain bi-radical verbs the vowel *ō*, of type D, is the result of diachronic loss of a former bilabial approximant *w* as medial root-consonant, and he assumes that most probably the vowel *u*, of type F, is a reflex of a labialized consonant that disappeared diachronically. However, the present author treats these verb types (types D and F of other researchers) as type A verbs. This is because the presence of these back vowels is the effect of the presence of co-articulated labial sounds as labialization is also phonemic in Inor. It can also be the effect of the disappearance of bilabial approximant *w* at word-medial or -final position diachronically by tracing its back feature to the vowels (and consonants as well if applicable). Besides, Inor possesses vowel rounding.

There is no uniformity among previous authors on classifying quadriconsonantal verbs into types. Some of them classify this group of verbs into types using the defining features mentioned above, but others treat them separately. For instance, Meyer (2006 for Wolane, Meheretu 2015 for Gyeta and Yohannes 2015 for Endegegn) group this set of verbs into types A, B, C and (D and F for the Wolane case only) on the basis of the quality of the vowel following the second root-consonant in the three conjugations as the main feature. Völlmin (2017: 49 for Gumer) also classifies the quadriconsonantal verbs into two types: type E and

F. The former features the vowel *ə* after the second radical in the perfective and imperfective only, whereas in the jussive it appears after the first radical while the latter is characterized by the vowel *a* which appears after the second radical in all three bases. On the other hand, according to Rose (1997: 16 for Ethio-Semitic languages in general, 2006: 843–844 for Endegegn and 2007: 406 for Chaha) quadriconsonantal verbs are treated separately. The present analysis on Inor also supports the idea that classifies quadriconsonantal verbs into types A, B and C, with the quality of the corresponding vowels following the second radical, the vowel in the first vocalic position being zero.[7]

All the verbs that are discussed above are verbs that have 'sound' root consonants. Inor also has many verbs that historically lost weak root consonants on the surface, but instead one finds *a, ʔ* or labialisation or palatalization. The same defining features that are mentioned above can also be used to classify these verbs into types, as their conjugation patterns are systematic. Prunet (1996) referred the radical *a* to as guttural /A/, which he assumed to be a guttural consonant that occupies and satisfies the C-slot of a template but spreads onto any adjacent V-slots. To show those verbs with vocalic radical *a*, for instance, the verbs *təpa* 'be strong' (< tbA) and *gəpa* 'enter' (< gbA) are given. These are type A verbs, due to the *ə* vowel in the perfective and to the fact that *p* alternates with *β* and the jussive does not have *ə* between the first two consonants: *təpa/jɨtəβʔa/ətɨβʔa* and *gəpa/jɨgəβʔa/əgɨβʔa*, for the perfective/imperfective/jussive conjugations. The presence of glottal stop *ʔ* in the imperfective and jussive verb forms, but not in the perfective, shows that it only appears after sonorants, including *β: βʔ, wʔ, w̃ʔ, ŋʔ, mʔ,nʔ, rʔ, r̃ʔ, lʔ, yʔ* (cf. Berhanu and Hetzron 2000: 12).There are type B verbs with final *a*, too, as in *bet'a* 'dilute milk with water' (< bt'A). These type B verbs with final or initial *a* lack the *e* vowel in the imperative, a characteristic of most of type B verbs: *elʔa/jelʔa/əlʔa* 'want to do something' (< AlʕA) and *menʔa/jɨŋnʔa/əmənʔa* 'be full'.

There are also type C verbs with medial *a or ʔ*. These verbs with medial *a*, however, are derived from triconsonantal verb roots that diachronically lost a weak medial consonant while in those with *ʔ*, the glottal *ʔ* is preservation of the original *ʔ or *ʕ. These bi-consonantal roots with medial *a* or tri-consonantal roots with medial *ʔ* are considered as exceptional type C in the present work, as they do not maintain the vowel *a* throughout the conjugation but instead have the *ə* vowel in the imperfective: *dasə/jɨdəs/ədas* 'demolish' (< dAs) and *saʔarə/jɨsəʔər/əsaʔar* 'beg' (< sʔl).[8]

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7. According to the second reviewer of this paper, quadrilaterals are not classified as types, but the present author doesn't accept this idea.

8. In most Gunnən-Gurage languages, an original intervocalic glottal stop is lost, which often results in the merger of two mid-central vowels into a low-central vowel, thus, **əʔə>*əə>a*, as in *təsaʔarə/təsarə* (Inor/Eža) vis-à-vis *səʔələ* (Gə'əz) 'ask' (cf. Tsehay 2016: 39). The other laryngeals

Verbs with a root glide are often bi-consonantal on the surface but behave in systematic ways similar to triconsonantal verbs. The distinction between type A and B is evident from the voicing patterns, the vowels between the first two consonants in the jussive/imperative and the presence of the *e* vowel.

The final glide palatalizes or labializes the preceding consonant (Degif 2000): *səʧ'ə/jɨsəʧ'/əsɨt'e* 'drink'(˂ st'j) and *t'əpʷə/jɨt'o/ət'u* 'suck' (˂ t'bw), which are type A verbs. Note that in the second verb, *β* is realized as *w* when labialized, which is then realized as *əw →o* or *ɨw → u* in the imperfective and jussive, respectively.

There are also typical irregular verbs that cannot be grouped under verb types A, B and C, due to their irregular forms. However, for the reason of space, the present paper does not discuss such verb groups.

The following sentential examples showing all the verbal distinctions discussed above are given to show the basic word order of Inor:

(1) a. *abaɲa eʔə səpər'ə/jɨsəβɨr/əsɨβɨr*
aba-ɲa eʔə səpər-ə / j-səβir/
father-POSS:1SG[9] wood break:PFV-3SGM:PST 3SGM-break:IPVF
ə-siβɨr
3SGM-break:JUS
'My father broke/breaks wood/let my father break wood'.

b. *abaɲa ʃətər'ə/əʃtər.*
aba-ɲa ʃətər-ə/ ə-ʃtər
father-POSS:1SG be.wither:PFV-3SGM:PST 3SGM-be.wither:JUS
'My father is withered/let my father be withered.'

c. *abaɲa əmɨsxuda assepərən'ɨ.*
aba-ɲa ə-mɨs-xuda
father-POSS:1SG ACC-man-DEF:3SGM
at-səpər-ə-n-ɨ
ID:CAUS-break:PFV-3SGMS-3SGMO-PST
'My father caused the man to be broken.'

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have completely disappeared (cf. Leslau 1951: 214) as in examples from himself: *nasə* 'lick' (*√*lhs*), *harə* 'know' (*√*khl*), *waʔə* 'swallow' (*√*wḥṭ*), example from the present study *bar- 'say'* (*√*bhl*). Further, the other laryngeals and *ḥ* as third radical have become zero: as in *nəfa* 'blow' (*√*nfḥ*), *fəta* 'untie, dissolve' (*√*fṭḥ*),

**9.** See the gloss of the abbreviations at the end of the paper.

## 3. Causatives

Causativization is characterized by increasing the number of arguments by changing the transitivity of a verb, i.e., it changes an intransitive verb into transitive and transitive into a ditransitive one. Semantically, it involves the relation between the causing event and the caused event. In causative derivation, a verb can occur in two forms: direct causative or indirect causative. In the former case, the subject (which is also an agent argument) of the verb is directly involved in the action, while in the case of the indirect causative, the agent is not the direct causer of the action expressed by the verb, rather it motivates others to perform that specified action.

### 3.1 Direct causative

The direct causative is marked by the prefix *a-*, which is attached to a stem whose simplex form is both intransitive and transitive, though the causative derivatives formed from the former are most frequent. In the case of derivation of intransitive verbs with a simplex root, the previous subject is demoted to the direct object (the patient/causee), while a new agent argument or causer who performs the action is added.[10] Hence, the intransitive verb forms with a simple stem possess two arguments (agent and patient) in the direct causative.

The derivatives of the direct causative in different verb types with tri- or quadriconsonantal roots are shown in the following examples:

Direct causative derivatives of type A of intransitive:

(2)

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | nəpərə[11] | jiɾ̃əmɟir | əmbər | 'live' |
| Derived: | a-ɾ̃əpərə | jaɾ̃əmɟir | a:mbir | 'allow to live' |
| Basic: | birək'ət'ə | jiβrək'ť | əβrək'ť | 'spoiled (child)' |
| Derived: | a-βrək'ət'ə | jaβrək'iť | a:bərk'iť | 'make (a child) spoiled' |

The template pattern of direct causative derivations of these intransitive triconsonantal roots with the corresponding basic form is conjugated as follows:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1əC_2əC_3$- | -$C_1əC_2iC_3$ | -$C_1C_2əC_3$ |
| Derived: | a-$C_1əC_2əC_3$- | -a-$C_1əC_2iC_3$ | -a-$C_1iC_2iC_3$ |

10. Mengistu (2000: 318 for Amharic) states that in the causative *a-*, the causee does not have control over the event. The causer acts directly and may achieve the result volitionally or non-volitionally. The causer is always involved in the event, and can be initiating a natural process or may exert effort.

11. Note that all the forms provided are in 3SGM.

As can be seen in (2), prefixation of the direct causative *a-* has a phonological effect on some roots, i.e.,*n* of *nəpər-* and *b* of *bɨrək'ət'-* get spirantized into nasalized *r̃* and bilabial fricative *β*, respectively.[12] Furthermore, the person marker *ə-* in the jussive assimilates to the direct causative marker *a-* whereby the long vowel *a:* is created.

Direct causative derivatives of type B (with vowel e) of intransitive:

| (3) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | betədə | jɨβetɨd | əβətɨd | 'be wide' |
| | Derived: | a-βetədə | jaβetɨd | a:βətɨd | 'widen' |

The triconsonantal roots of type B verbs in this derivation are conjugated as in the following:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1eC_2əC_3$- | -$C_1eC_2ɨC_3$ | -$C_1əC_2C_3$ |
| Derived: | a-$C_1eC_2əC_3$ | -a-$C_1eC_2ɨC_3$ | -a-$C_1əC_2ɨC_3$ |

Direct causative derivatives of type C of intransitive:

| (4) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | zak'$^w$ərə | jɨzak'$^w$ɨr | əzak'$^w$ɨr | 'talk nonsense' |
| | Derived: | a-zak'$^w$ərə | jazak'$^w$ɨr | a:zak'$^w$ɨr | 'cause to talk nonsense, talk more' |

The templates of direct causative derivations of type C verbs are conjugated as follows:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1aC_2əC_3$ | -$C_1aC_2ɨC_3$ | -$C_1aC_2ɨC_3$ |
| Derived: | a-$C_1aC_2əC_3$ | -a-$C_1aC_2ɨC_3$ | -a-$C_1aC_2ɨC_3$ |

In contrast to this, a large number of simplex stems of transitive verbs starting with a consonant lack the direct causative form, but have only the indirect causative. In other words, unaccusative verbs that lack causatives with *a-* do have the causative form with *at-*. Such forms are generally interpreted as the causative of the passive, e.g. *at-dənəgə [addenəgə]* 'cause to be hit'.

Direct causative derivational process also applies to transitive simplex roots of various verb types. In this case as well, the agent of the simplex verb takes the position of the direct object to be a patient in the causative derivation when another new argument of the derivation which directly causes the action expressed by the verb is introduced, due to the occurrence of the valence increasing morpheme, i.e., the direct causative marker *a-*.

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**12.** In Inor, word-initial bilabials and alveolar nasal of a word are spirantized when a prefix is attached to them as in the following manner: *b→β, b$^w$→w, m→ɱ, m$^w$→w̃, w→w̃, n→r̃* (Berhanu & Hetzron 2000: 19).

Direct causative derivatives of A of transitive verbs:

| (5) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | zəkədə | jɨzəgɨd | əzɨgɨd | 'remember, recall' |
| | Derived: | a-zəkədə | jazəgɨd | a:zɨgɨd | 'make someone remember, recall' |
| | Basic: | sɨrəsərə | jɨsrəsɨr | əsərsɨr | 'level the floor of a house' |
| | Derived: | a-srəsərə | jasrəsɨr | a:sərsɨr | 'make someone level the floor of a house by scraping off the uneven place' |

The conjugational pattern of these direct causative derivations of triconsonantal roots is shown below:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1əC_2əC_2$ | $-C_1əC_2ɨC_2$ | $-C_1ɨC_2ɨC_2$ |
| Derived: | $a-C_1əC_2əC_2$ | $-a-C_1əC_2ɨC_2$ | $-a-C_1ɨC_2ɨC_2$ |

Direct causative derivatives of triradical roots of type B (both with palatalization and with vowel e) of transitive verbs:

| (6) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | nekʲəβə | jɨřekʲɨβ | əřəkɨβ | 'ride' |
| | Derived: | a-řekʲəβə | jařekʲɨβ | a:řəkɨβ | 'help to mount, ride (on a horse)' |
| | Basic: | fenəgə | jɨfenɨg | əfənɨg | 'carry, load' |
| | Derived: | a-fenəgə | jafenɨg | a:fənɨg | 'make someone to carry, load' |

The template pattern of these direct causative derivations of triradical roots is shown in the following:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1eC_2əC_3$ | $-C_1eC_2ɨC_3$ | $-C_1əC_2ɨC_3$ |
| Derived: | $a-C_1eC_2əC_3$ | $-a-C_1eC_2ɨC_3$ | $-a-C_1əC_2ɨC_3$ |

Direct causative derivatives of triradical roots of type C of transitive verbs were not attested.

However, as mentioned above, the causative derivation in *a-* has semantic restrictions on its association with transitive verbs, i.e., it is plausible with certain transitive verbs, but it creates ungrammaticality when it applies to others. Put differently, there exist unaccusative verbs lacking causatives with *a-*, as in (7).[13]

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13. According to Degif (1996b), the prefix *a-* can attach to all unergative verbs except 'go' and 'descend', ex. *dak'ə* 'laugh' versus *a-dək'ə* 'make laugh'. It cannot attach to unaccusative verbs unless they have a transitive/intransitive alternation, such as *bəsərə* 'cook' vs. *a-bəsərə* 'cook something' or *kʲət'ə* 'be tired' versus *a-kʲət'ə* 'tire someone'. For example, the verb *nəzəzə* 'dream' does not have

(7)

| *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|
| fənəβə | 'break off (bread)' | *a-fənəβə | 'make break off' |
| səpərə | 'break' | *a-səpərə | 'cause to break' |
| k'ənəβə | 'insult' | *a-k'ənəβə | 'make to insult' |
| dənəgə | 'hit' | *a-dənəgə | 'make to hit' |

It is important to note that affixation of another prefix ending in a vowel, like the relative and jussive prefixes, to this causative marker causes a vowel lengthening.[14]

There are certain simplex root-morphemes whose meaning is totally changed when the direct causative *a-* is attached to them. In some of these verbs, this situation also results in reduction of an argument. Consider the examples in (8).

(8)

| *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|
| xəna | 'call up' | a-xəna | 'shout, be noisy' |
| bəta | 'inherit, take' | a-βəta | 'marry off' |
| xʷəʔə [xoʔə] | 'spill (TR) | a-xʷəʔə [axoʔə] | 'spill (INTR)' |

## 3.2 Indirect causative

In Inor, any simplex root has an indirect causative counterpart. In other words, unlike many other possible derivations, the indirect causative can be derived from any root-morpheme, whether the corresponding simplex stem is transitive or intransitive. This indirect causative verb is derived from a simplex template by attaching the prefix *at-* to the template. When *at-* is affixed to the template of simplex stems, another argument that acts as a subject of newly derived form is created. This newly added subject initiates the subject of the simplex stem, which appears in the direct object position in the derivational form, to perform the verbal action. The sentential examples in (9) illustrate this fact. However, depending on the semantic nature of some verbs, the meaning of the verbs may be changed when *at-* is prefixed to the corresponding simplex stems:

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a causative **a-rəzəzə 'make* someone dream'. As to Rose (2007: 412), unaccusative verbs which lack causatives with *a-* do have them with *at-*, generally interpreted as the causative of the passive: ex. *at-səpərə* 'cause to be broken'. As a result, the prefix *at-* may act as a causative for verbs which do not have a causative in *a-* or as a true factive: 'make someone do something' (as against the causative 'make it possible/necessary for someone to do something' (cf. Hetzron 1977: 72–73).

**14.** The second reviewer of this paper commented that there is a long vowel at the beginning of all the causative imperfective and jussive forms. However, this is true for the causative jussive forms, but not for the causative imperfective form, because the prefixal person marker in the imperfective is only *j-*, rather than *ji-*. An epenthetic *i* is inserted only if the verb begins with a consonant. Therefore, in the causative imperfective form of a verb, the person marker is *j-*, which precedes the causative prefixes *a-* or *at-*, whereby there is no long vowel created.

(9) a. *tɨkəxuda ʃərəd bənʔ'a.*
tɨkə-xuda ʃərəd bənʔa
child-DEF:3SGM food eat:PFV:3SGM:PST
'The child ate food.'

b. *ətɨkəxuda ʃərəd aβənʔaxun'ɨ.*
ə-tɨkə-xuda ʃərəd a-bənʔa-xu-n-ɨ
DAT-child-DEF:3SGM food D:CAUS-eat:PFV-1SGS-3SGMO-PST
'I made the child eat food.'

c. *ət'ajxuda atβenʔaxun'ɨ.*
ə-t'ay-xuda at-bənʔa-xu-n-ɨ
DAT-sheep-DEF:3SGM ID:CAUS-eat:PFV-1SGS-3SGMO-PST
'I caused the sheep to be eaten.'

The prefix *at-* is sometimes analyzed as composed of causative *a-* and passive *t-*. Regarding this, Berhanu and Hetzron (2000: 42) state that *a-t-*: attached to a type B form, even if the base is type A, is a factitive, i.e., force to do. The illustrative example they provided is *aɾ̃ekʲəβə* 'make it possible to ride (a horse), (type B), *atrekʲəβə* 'order to ride' (*nəkʲəβə* 'mount, ride a horse' (type A)) and, according to them, with type C it is often a causative of reciprocal.

The derivative marker *at-* can be prefixed to simplex stems of all types (types A, B and C) as shown below, respectively.

Indirect causative derivations formed from triradical roots of simplex stems of type A:

(10)

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | səpərə | jɨsəβɨr | əsɨβɨr | 'break' |
| Derived: | at-sepərə | jatsepɨr | a:tsəβɨr | 'order to break' |

The conjugational pattern of triconsonantal roots of these derivations is shown below:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1ɨC_2ɨC_3$ |
| Derived: | $at-C_1eC_2əC_3$ | $-at-C_1eC_2ɨC_3$ | $-at-C_1əC_2ɨC_3$ |

Indirect causative derivations formed from triradical roots of simplex stems of type B (both with palatalization and with vowel *e*):

(11)

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | ʒəʔərə | jɨʒəʔɨr | əzəʔɨr | 'split' |
| Derived: | at-ʒeʔərə | jatʒeʔɨr | a:tzəʔɨr | 'order to finish' |
| Basic: | met'ərə | jɨɱet'ɨr | əɱət'ɨr | 'choose' |
| Derived: | at-ɱet'ərə | jatɱet'ɨr | a:tɱət'ɨr | 'order to choose, select' |

The conjugation pattern of these derivations is as follows:

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (type B with palatalization) |
| Derived: | $at-C_1eC_2əC_3$ | $-at-C_1eC_2ɨC_3$ | $-at-C_1əC_2ɨC_3$ | |
| Basic: | $C_1eC_2əC_3$ | $-C_1eC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (type B with vowel e) |
| Derived: | $at-C_1eC_2əC_3$ | $-at-C_1eC_2ɨC_3$ | $-at-C_1əC_2ɨC_3$ | |

Indirect causative derivations formed from trilateral roots of simplex stems of type C:

(12)

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | banərə | jiβanɨr | əβanɨr | 'demolish' |
| Derived: | at-βanərə | jatβanɨr | a:tβanɨr | 'order to demolish' |

The template of these derivations is conjugated as follows:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1aC_2əC_3$ | $-C_1aC_2ɨC_3$ | $-C_1aC_2ɨC_3$ |
| Derived: | $at-C_1aC_2əC_3$ | $-at-C_1aC_2ɨC_3$ | $-at-C_1aC_2ɨC_3$ |

Prefixation of the indirect causative marker *at-* to the template of simplex stems of type A and type B with palatalization affects the template vowels of the stems occurring following the first root consonant(with the exception of those bi- and tri-radical roots which have quadrilateral templates with very complicated conjugations like *ʔɨjə* 'wait for' and *sɨjə* 'buy' which this paper drops, only discussing more straightforward verbs). That is, the basic pattern is that there is an *e* that is inserted in type A and type B with palatalization. Any verb that already has an *e* (either type B or as part of its conjugation due to a defective glide) does not acquire it with *at-*.Thus, in all conjugations, the indirect causative derivation of this verb type has the same template form with the simplex as well as the derived form of the template of type B verbs with front vowels. On the contrary, affixation of the indirect causative derivative *at-* to the simplex stems of type B (with the vowel *e*) and type C causes no change, thus, the simplex stems and their indirect causative derivation counterparts of these type have identical template vowels, i.e., *e* and *a*, respectively, following the first radical.

As for other verbs with other vowels in the target position, there appears to be variability, but it can be analyzed systematically, although this paper drops them. Some of these verbs take *e* and some do not, and some have both a former guttural and a glide and some have a former guttural somewhere in their roots.

Assimilation (voice and manner) of consonants takes place when the causative derivative marker *at-* is affixed to the template of the simplex stem, i.e., the alveolar stop of the marker *at-* is totally assimilated to the following consonant if the prefix

is attached to the simplex stem beginning with the alveolar stop *d*, alveolar fricatives *s* and *z* and/or post-alveolar affricates *ʃ, ʒ, ʧ, ʤ* and alveolar and post-alveolar ejectives *t'* and *ʧ'*. The following examples illustrate this fact.

| (13) | *Simplex verb root* | | *Indirect causative* | | |
|---|---|---|---|---|---|
| | dənəgə | 'hit' | *at-dənəgə | > addenəgə | 'order to hit' |
| | zəmədə | 'pull' | *at-zəmədə | > azzemədə | 'order to pull' |
| | ʒəpərə | 'return' | *at-ʒəpərə | > aʒʒepərə | 'make to return' |

The plosive *t* of the marker, further, changes to its voiced counterpart *d* when the first root-consonant of the simplex stem is the palatal or velar voiced plosives $g^j$ or *g*, respectively, as in the following examples:

| (14) | *Simplex verb root* | | *Indirect causative* | |
|---|---|---|---|---|
| | $g^j$ek$^j$ərə | 'straighten' | *at-$g^j$ek$^j$ərə > adg$^j$ek$^j$ərə | 'cause to straighten' |
| | gəfərə | 'release' | *at-gəfərə > adg$^j$efərə | 'order to release' |

The first root *g* of the second example is palatalized into $g^j$ due to the presence of the mid front vowel *e*, which is inserted in the process. However, this palatalization of the first root-consonant never occurs with co-articulated counterpart of the corresponding consonant as in:**at-g$^w$ənər > adg$^w$enərə* 'order to cut the leaf of false banana' (< the simplex tri-radical type A verb *g$^w$ənər*).

### 3.3 Adjutative

Adjutative derivation shows an action in which a person is involved to help another person who performs the action.[15] The indirect causative marker *at-* with *a*-insertion yields adjutative form.

| (15) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | wəka | jɨwəga | əga | 'pound' |
| | Derived: | at-waka[16] | jatwaga | a:twaga | 'give help in pounding' |
| | Basic: | fəʔəřə | jɨfəʔɨr | əfɨʔɨr | 'be ready' |
| | Derived: | at-fãʔəřə | jatfãʔɨ̃ř | a:tfãʔɨ̃ř | 'help in making something ready' |

The following conjugational pattern of triconsonantal roots shows this derivation:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1ɨC_2ɨC_3$ |
| Template: | $at-C_1aC_2əC_3$ | $-at-C_1aC_2ɨC_3$ | $-at-C_1aC_2ɨC_3$ |

15. Adjutative and reciprocal causative sometimes must be context sensitive in a given discourse.

16. Also causative, 'made others fight one another'.

## 4. Medio-passive and reflexive

In Inor, the medio-passive derivation expresses both a passive and a reflexive.[17] Usually, the passive derivation is applied to a simplex root-morpheme of transitive verbs. Semantically and syntactically, this derivational process involves the promotion of the object of a transitive clause into a subject, and the demotion of the former subject either to an oblique object marked by the case prefix *bə-* 'by' or it is deleted. In other words, the subject of a transitive verb is optional in the passive form.

The passivized form, in Inor, is derived by prefixing *tə-* to the template of the simplex root of corresponding verb types. This derivation is very infrequently used, but instead the conceptually passive constructions are expressed by impersonal passive (see Meyer 2006).

(16) a. *səβxunowa gərədxida tewīmʷ.*
səβ-xunowa gərəd-xida tə-aŋ-ʷowa-m
people-DEF:3PLM girl-DEF:3SGF PASS-give:PFV-3PLM-PST
'The people were given the girl (for engagement)'.

b. *ʔokʷa bəβiskadjə deŋga təkʾənəxʾu gəpaxʾu.*
ʔokʷa bə-biskad-jə denga tə-kʾənəŋ-xu
today ins-small-ADJVR boy:P PASS-insult:PFV-1SG:m_CVB
gəpa-xu
enter:PFV-1SG:PST
'Today, I'm insulted by small children (unfairly).'

Even the constructions given in (16) sound better as if it would be expressed by impersonal passive.

On the other hand, Inor possesses naturally reflexive verbs that are 'grooming verbs', such as shave, wash or dress and 'verbs of movement'. In reflexive construction, the verb involves a mono-valent verb whose argument serves as both agent and theme. Put differently, unlike passive construction, whose subject is only experiencer, in medio-passive or reflexive the subject is both agent and experiencer, thus, medio-passive is also called auto-benifactive. Reflexive derivation in Inor is formed in the same way in which the passive is formed, i.e., by attaching *tə-* to the verbal template of simplex roots of various types. Consider the verbs in medio-passive in (17) that also have a reflexive reading.

Medio-passive and/or reflexive derivations formed from trilateral roots of simplex stems of type A, B and C:

17. In the literature on Ethio-Semitic, reflexive verbs are also referred to as medio-passive or anti-causative verbs or impersonal passives.

(17)

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | dənəgə | jɨdərg | ədɨrg | 'hit' |
| | Derived: | tə-dənəgə | jɨtdənəg | ətdərəg | 'be hit/hit oneself' |
| Type B | with palatalisation: | | | | |
| | Basic: | ʒəʔərə | jɨʒəʔɨr | əzəʔɨr | 'split' |
| | Derived: | tə-ʒəʔərə | jɨtʒəʔər | ətzəʔər | 'be split/split oneself' |
| Type B | with *e*: | | | | |
| | Basic: | metʼərə | jɨmɟetʼɨr | əmɟətʼɨr | 'select' |
| | Derived: | təmɟetʼərə | jɨtmɟetʼər | ətmɟətʼər | 'be selected/separate oneself' |
| Type C | Basic: | kʼatʼərə | jɨkʼatʼɨr | əkʼatʼɨr | 'knot' |
| | Derived: | təkʼatʼərə | jɨtʼkʼatʼər | ətkʼatʼər | 'be knotted/knot oneself' |

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2C_3$ | $-C_1ɨC_2(ɨ)C_3$ | |
| | Derived: | $tə-C_1əC_2əC_3$ | $-t-C_1əC_2əC_3$ | $-t-C_1əC_2əC_3$ | |
| Type B | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2C_3$ | $-C_1ɨC_2ɨC_3$ | (with palatalization) |
| | Derived: | $tə-C_1əC_2əC_3$ | $-t-C_1əC_2əC_3$ | $-t-C_1əC_2əC_3$ | |
| | Basic: | $C_1eC_2əC_3$ | $-C_1eC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (with vowel *e*) |
| | Derived: | $tə-C_1eC_2əC_3$ | $-t-C_1eC_2əC_3$ | $-t-C_1əC_2əC_3$ | |
| Type C | Basic: | $C_1aC_2əC_3$ | $-C_1aC_2ɨC_3$ | $-C_1aC_2ɨC_3$ | |
| | Derived: | $tə-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | |

It is important to point out that the imperfective and jussive vowels are not the same as the base in the passive/reflexive, so one finds CəCəC, as in (17). Furthermore, for verbs that show strong alternates in the perfective, the strong alternant is also found in the imperfective for type A verbs instead of the weak form, as can be compared to the conjugation of the base and the derived forms. One can also see the devoicing aspect with imperfective, as in *jɨtsəpər* (cf. base *jɨsəβɨr*) from the root /sbr/'break'. Type C verbs also show the same vowel change, as with the verb *tə-kʼatʼərə* in (17).

Moreover, when preceded by another prefix, *ə* of this derivative *tə-* is deleted. Instead, *ɨ* is inserted as an epenthetic where necessary, as in *təsəpərə*/*jɨtsəpər*/*ətsəβər* for the three conjugations of the root /sbr/'be broken/break oneself'.

However, not all root-morphemes whose simplex is transitive derive medio-passive/reflexive stems, but passive, i.e., there are a number of simplex root-morphemes of transitive verbs whose reflexive form is ungrammatical, as in the following examples of type A.

(18)

| *Simplex verb root* | | *passive/reflexive* | |
|---|---|---|---|
| sənəʔə | 'steal' | təsənəʔə | 'be stolen/*steal oneself' |
| ʔətərə | 'kill' | təʔətərə | 'be killed/*kill oneself' |

The derived stems in (18) render only a passive reading, but not a medio-passive or reflexive one, because the actions expressed by these forms are not performed by someone who is an experiencer. Even so, the semantics of the passive sounds more as if it would be expressed by impersonal passive.

## 5. Frequentative

Frequentative derivation shows the intensity or frequency of the action expressed by the verb. This derivation is applicable for only transitive verbs. Reduplication of the penultimate radical of tri-consonantal root-morphemes, for example of type A with the template $C_1C_2əC_2əC_3$, derives a frequentative stem. However, this derivation is not as frequent as the derivations discussed in the previous sub-sections. Even within this derivation, bi-consonantal root-morphemes are less frequent than tri-consonantal root-morphemes of the corresponding types. Consider the following examples from triconsonantal roots of each verb type:

(19)

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | kəfədə | jɨkəfd | əkɨfd | 'open' |
| | Derived: | kɨfəfədə | jɨkfəfd | əkfəfd | 'open this and that' |
| | Basic: | fənəβə | jɨfəniβ | əfiniβ | 'break off edge' |
| | Derived: | fɨrənəβə | jɨfrəniβ | əfrəniβ | 'break into pieces' |
| Type B with *e*: | | | | | |
| | Basic: | meťərə | jɨɱeťir | əɱəťir | 'choose' |
| | Derived: | miťeťərə | jɨɱťeťir | əɱťəťir | 'choose many things repeatedly' |
| Type B with palatalisation: | | | | | |
| | Basic: | ʒəʔərə | jɨʒəʔir | əzəʔir | 'open' |
| | Derived: | ʒɨʔəʔərə | jɨʒʔəʔir | əzʔəʔir | 'open this and that' |
| OR | Basic: | ʒəʔərə | jɨʒəʔir | əzəʔir | 'split wood' |
| | Derived: | ʒɨʔaʔərə | jɨʒʔaʔir | əzʔaʔir | 'split wood repetitively (and lots of it)' |
| Type C | Basic: | ʃakədə | jɨʃagɨd | əʃagɨd | 'distribute' |
| | Derived: | ʃɨkakɨdə | jɨʃgagɨd | əʃgagɨd | 'divide something several places' |

The following conjugational patterns of triconsonantal roots of various types show this derivation:

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2(ɨ)C_3$ | $-C_1ɨC_2(ɨ)C_3$ | |
| | Derived: | $C_1C_2əC_2əC_3$ | $-C_1C_2əC_2(ɨ)C_3$ | $-C_1C_2əC_2(ɨ)C_3$ | |
| Type B | Basic: | $C_1eC_2əC_3$ | $-C_1eC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (with vowel *e*) |
| | Derived: | $C_1C_2eC_2əC_3$ | $-C_1C_2eC_2ɨC_3$ | $-C_1C_2əC_2ɨC_3$ | |
| | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (with palatalization) |
| | Derived: | $C_1C_2ə/aC_2əC_3$ | $-C_1C_2ə/aC_2ɨC_3$ | $-C_1C_2ə/aC_2ɨC_3$ | |
| Type C | Basic: | $C_1aC_2əC_3$ | $-C_1aC_2ɨC_3$ | $-C_1aC_2ɨC_3$ | |
| | Derived: | $C_1C_2aC_2əC_3$ | $-C_1C_2aC_2ɨC_3$ | $-C_1C_2aC_2ɨC_3$ | |

Regarding the template vowel in this derivation, in triradical roots of type B (with vowel *e*) and C the vowels that occur between the two identical consonants are the same with the template vowel of the base following the first root consonant, i.e., *e* and *a*, respectively. Hence, reduplication of the corresponding root-consonants of the simplex stem of these types never affects the template vowel in the derivations. While concerning this vowel occurring in the same position of the derivation, type A verbs are categorized into two, i.e., the majority of verbs of this type have the vowel *ə* between the reduplicated radicals, which is similar to the template vowel occurring after the first root-consonant of the simplex stem of the same type, as in (19) above. Though they are few in number, in the second group of verbs of this type, the template vowel between the two identical consonants is *a* (also see Berhanu & Hetzron 2000: 39–41). This vowel change within the same type, however, is unpredictable. Hence, the derivational template (frequentative) of the latter groups is identical with the templates of the frequentative of root-morphemes of type C, as in (20).

(20)

| | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|
| Basic: | nəsa | jɨřəsa | ənsa | 'lift' |
| Derived: | nɨsasa | jɨnsasa | ənsasa | 'lift frequently' |
| Basic: | dəmədə | jɨdəmd | ədɨmd | 'mix' |
| Derived: | dɨmamədə | jɨdmamɨd | ədmamɨd | 'mix this and that' |

The triconsonantal root of type A with the vowel *a* between the reduplicated consonants of this derivation has the following template pattern:

| | *Perfective* | *Imperfective* | *Jussive* |
|---|---|---|---|
| Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1C_2ɨC_3$ |
| Derived: | $C_1C_2aC_2əC_3$ | $-C_1C_2aC_2ɨC_3$ | $-C_1C_2aC_2ɨC_3$ |

There are also verbs with two surface consonants. These surface biliteral verbs fall into two different groups. In the first group, those verbs that lost the final weak consonant reduplicate the second consonant (= penult). In *nəsa*, for instance, the root

is /rsA/ ‘pick’, so *s* is the penultimate root segment, and thus is copied, as in *nɨsasa* ‘pick up several things’. For *neʔə* ‘shave’, the root is likely /rʔj/, so the penultimate root consonant is *ʔ*. Thus, the derivation results in *niʔeʔə* ‘shave this and that repeatedly’. In the second, the penultimate consonants are weak and cannot be copied, so the initial one is selected, however, this group of verbs have no plain frequentative forms but rather reciprocal *barə* ‘say’ /bAjr/, *xarə* ‘know’ /xAjr/ and *ʃaɱə* ‘pul’ with the reciprocal form *təβēβēr-*, *təxexer-*and *təʃaʃaɱ-*, respectively, (also see 5). It is noted that *barə* and *xarə* have palatal elements that appear in various derivations.

In the process of formation of frequentative, the first occurrence of the repeated radical has the weak alternant, while the second has the strong one in the perfective and the imperfective, but in the jussive both occurrences are weak, if applicable.[18] The strong alternant is the former geminate, while the weak is the former singleton. The illustrative examples are as follows:

| (21) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | səpərə | jɨsəβɨr | jɨsəβɨr | ‘break’ |
| | Derived: | sɨβəpərə | jɨsβəpɨr | jɨsβəβɨr | ‘break into small pieces’ |

However, there are also a considerable number of verb stems of this derivation in which the first occurrence also remains strong in the perfective, though it is applicable for the alternation, as in (22).[19] Hence, the motivation for the difference in alternation of segments occurring in identical phonetic environment and applied on the same phoneme is not clear.

| (22) | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| | Basic: | t’əbət’ə | jɨt’ət’ | ət’ɨt’ | ‘seize’ |
| | Derived: | tɨbəbət’ə | jɨt’βəβɨt’ | ət’βəβt’ | ‘seize repeatedly’ |
| | Basic: | dəpərə | jɨdəβɨr | ədɨβɨr | ‘add’ |
| | Derived: | dɨpəpərə | jɨdβəpɨr | ədβəpɨr | ‘add again and again, add from different varieties’ |

Frequentatives with bi-consonantal roots of type C were not attested. Frequentative of quadri-consonantal roots of any type is also impossible. This may be because of all the frequentative forms, as with those shown above, the quadri-lateral template and that most of quadri-consonantal root-morphemes are formed by reduplicating one of the roots. However, no frequentative form was recorded for those

**18.** Hetzron (1977: 71) also notes that an expressive reduplicative form may be derived from a root through repetition of the mid radical, where the first occurrence has the weak alternate and the second has the strong alternate in the indicative and the weak in the jussive.

**19.** Leslau (1950a, cf. Hetzron 1977: 71) offers some example words for this occurrence. However, Hetzron (1977) does not offer an explanation.

that contain four different root-consonants. Not only frequentative derivations with quadri-consonantal roots, but also frequentative derivations with bi- and tri-consonantal roots that possess the quadri-lateral template do not occur. The following examples illustrate the latter fact:

(23)

| *Simplex verb root* | | *Frequentative* | |
|---|---|---|---|
| sɨjə | 'buy' | *sijɨjə[20] | 'buy this and that' |
| ʔɨjə | 'wait, guard' | *ʔɨjɨjə | 'wait, guard now and then' |
| dɨroʔʷə | 'be deaf' | *dɨrʔoʔʷə | 'be deaf seriously' |

## 6. Reciprocal

Reciprocal actions express a symmetric relationship between two participants: each stands as both originator and receiver of some event of the type described. Reciprocals describe a plurality or reciprocity of events involving compound subjects. The passiviser *tə-* in combination with insertion of the vowel *a* following the first radical of bi- and tri-lateral roots of any type and the second radical of quadri-lateral roots and other roots having quadrilateral template, usually describes a reciprocal state of affairs. As a result, such verbs occur with plural subjects, as illustrated in the following examples:

(24)

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | zəmədə | jɨzəmd | əzɨmd | 'pull' |
| | Derived: | tə-zamədə | jɨtzaməd | ətzaməd | 'pull each other' |
| | Basic: | ʧʼɨβəʧʼək'ə | jɨtʃʼβəʧʼɨk' | ətʃʼβəʧʼɨk' | 'argue' |
| | Derived: | tə-ʧʼβatʃʼək'ə | jɨttʃʼɨβatʃʼək' | ətʧʼɨβatʃʼək' | 'argue each other' |
| Type B with *e*: | | | | | |
| | Basic: | metʼərə | jɨmɟetʼɨr | əmɟətʼɨr | 'choose' |
| | Derived: | tə-mɟajtʼərə | jɨtmɟajtʼər | ətmɟajtʼər | 'choose one another' |
| Type B with palatalization: | | | | | |
| | Basic: | ʒəʔərə | jɨʒəʔɨr | əzəʔɨr | 'split' |
| | Derived: | tə-ʒaʔərə | jɨtʒaʔər | ətʒaʔər/ətzaʔər | 'split each other severely' |
| Type C | Basic: | ʧʼafərə | jɨtʃʼafɨr | ətʧʼafər | 'scratch' |
| | Derived: | tə-ʧʼafərə | jɨttʃʼafər | ətʧafər | 'scratch each other' |

20. The Amharic cognate is *gəzazza*.

Reciprocal derivations of triconsonantal roots have the following conjugation pattern:

| | | *Perfective* | *Imperfective* | *Jussive* | |
|---|---|---|---|---|---|
| Type A | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1ɨC_2ɨC_3$ | |
| | Derived: | $tə-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | |
| Type B | Basic: | $C_1eC_2əC_3$ | $-C_1eC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (with vowel *e*) |
| | Derived: | $tə-C_1ajC_2əC_3$ | $-t-C_1ajC_2əC_3$ | $-t-C_1ajC_2əC_3$ | |
| | Basic: | $C_1əC_2əC_3$ | $-C_1əC_2ɨC_3$ | $-C_1əC_2ɨC_3$ | (with palatalization) |
| | Derived: | $tə-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | |
| Type C | Basic: | $C_1aC_2əC_3$ | $-C_1aC_2ɨC_3$ | $-C_1aC_2ɨC_3$ | |
| | Derived: | $tə-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | $-t-C_1aC_2əC_3$ | |

As can be seen from the above examples, like that of frequentative construction (see 5), reciprocal derivational process is always applied to the transitive verbs, as they involve plural subjects that act both as agent and patient at the same time. This set of examples also shows that reciprocal derivations are formally the same with medio-passive and reflexive derivations (see 4) with the only difference in vowel quality, i.e., the former has the vowel *a* between the first two root-consonants of type A and C with bi- and tri-lateral roots and between the second and the third for those of quadrilateral (if applicable), while the latter have the vowel *ə* and *a*, respectively, in the corresponding vocalic positions of the corresponding types. However, the situation is a bit different in the case of type B. That is, *a*-insertion is followed by the palatal approximant *j*. The insertion of *j* following the template *a* seems the compensation of the palatal template vowel *e* of the simplex form of this type.[21]

It is important to note that the reciprocal derivation for the 3PLM has the same kind of labialization and palatalization that is found in the impersonal, as in *təgʲafʷərmʷ* 'They divorce/release each other' (< *gəfərə* 'divorce/release'). Note that the initial *g* of the root /gfr/ is realized as *gʲ*.

**21.** According to the second reviewer, some analysts hypothesize that type B verbs are actually quadrilaterals with CjCC whereby [j] usually combines with [ə] to produce [e]. This would also account for palatalization in other type B forms. According to her, this analysis would certainly account for the appearance of [j] in reciprocals of type B. The present analysis also confirms this.

## 7. Bound roots with lexicalised affixes

A certain number of root-morphemes in Inor occur only in derived stems but do not have a simplex form. In other words, these stems are bound and need to necessarily occur with a kind of prefix.[22] The reason for the absence of their corresponding simplex can be that these verb roots represent archaic lexicalized stems.[23]

One may find couples such as *a-βranəʔə* 'impress, satisfy (TR)'and *tə-βranəʔə* 'be impressed, be satisfied', but no plain stem **bɨranəʔə*, or triplets such as *a-t'awərə* 'prepare well', *tə-t'awərə* 'be prepared well' and *at-t'awərə [at'ɨ'ewərə]* 'order to prepare well', **t'awərə*. Thus, these stems may occur in passive reflexive and in direct causative and/or indirect causative stem form. This sub-section presents lists of the verb stems that occur in three (with *a-*, *at-* and *tə-*), two (with either two of the three) or even only in one derived form (with one of the three).

Verbal stems occurring in the derived form with the prefix *tə-*, but with or without derived meaning, that have causative correspondence in *a-* are given below:

(25)

| *Derived forms occurring in direct causative* | | *Derived forms occurring in passive/reflexive* | |
|---|---|---|---|
| a-rəʃə- | 'make mattress, build, knit' | tə-rəʃə- | 'be made (mattress), built' |
| a-ɾ̃əkʾət'- | 'winnow' | tə-ɾ̃əkʾət'- | 'be winnowed' |
| a-xəbəd- | 'honor, respect' | tə-xəbəd- | 'be honored, respected' |

Some verbs come in pairs with the same meaning. The verb *a-xetərə* and *tə-xetərə* both mean 'follow', as illustrated in the following sentential examples:

(26) a. *nora səβ axetərx'u maʔax'u.*
nora səβ a-xetər-xu maʔa-xu
several person D:CAUS-follow:PFV-1SGS:*m*_CVB come:PFV-1SG:PST
'I came having made many people follow me.'

b. *nora səβ axetərəj'i maʔ'a.*
nora səβ axetərə-i maʔa
several people follow:PFV:3SGMS-1SGO-*m*_CVB come:PFV:3SGM:PST
'Several people came following me.'

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**22.** Degif (1994) calls these stems 'prefix-necessitating stems'. According to him, these stems are bound stems that require prefixes to provide external arguments.

**23.** Meyer (2006: 103 for Wolane, spoken in at the north-eastern edge of the Gurage zone) states that several processes may have led to this situation. First, the function of a simplex could have been taken over by a derived stem, thus yielding the disappearance of the simplex. Second, loanwords from other Ethio-Semitic language may have entered Wolane only as a derived but not as a simplex stem. Third, this state of affairs may have already existed in Proto-Ethio-Semitic. Thus, similar situations may also occur in Inor.

c. *nora səβ təxetərji maʔ'a.*
nora səβ təxetər-ə-i maʔa
several people follow:PFV-3SGMS-1SGO:*m*_CVB come:PFV:3SGMS:PST
'Several people came following me.'

In (26a), the subject (agent) is the direct cause of the action performed by other people, while in (26b) and (26c) the verb stem can occur in two derivational forms with *a-* and *tə-*, respectively, as if they were in direct causative and passive reflexive, but with the simplex meaning.

There are bound roots in one context that can be free roots in another, as in direct causative and passive reflexive *a-xətər-* 'dress' and *tə-xətər-* 'dress oneself, get dressed', respectively. *xətər*, on the other hand, is a possible free verb, which means 'cover' and dress means 'cover'. Similarly, in *a-blaʃ-* 'blight, destroy' *tə-blaʃ-* 'blight, spoiled, be destroyed', *blaʃ* is possibly a free verbal adjective which means 'spoiled'.

There are also verbal stems occurring in the derived form (with the prefixes *tə-*) without a derived meaning.[24] Such verb stems have causative correspondence in *at-* as in the following examples:

(27)

| *Derived forms occurring in indirect causative* | | *Derived forms occurring with tə-, but with simplex meaning* | |
|---|---|---|---|
| at-ʃəkəβ- | 'force to stand, erect' | tə-ʃəkəβ- | 'stand up, erect (INTR)' |
| at-k'awɜ̃- | 'make to drink hot drinks' | tə-k'awɜ̃- | 'drink hot drinks' |
| at-saʔar- | 'make to ask' | tə-saʔar- | 'ask' |

As can be seen in (27), however, all the derivational forms to which the indirect causative marker *at-* is attached do not have a causative in *a-*. Thus, these verbs may have the same form in both their direct causative and indirect causative readings (see 3). A few verbal roots of this type have also passive reflexive correspondent as the examples shown below:

(28)

| *Derived forms occurring in causative* | | *Derived forms occurring in passive reflexive* | |
|---|---|---|---|
| at-ř̃atəd- | 'make angry' | tə-ř̃atəd- | 'get angry' |
| at-řekəβ- | 'make to show up' | tə-řəkəβ- | 'show up' |
| at-βaʃər- | 'offer in abundance' | tə-βaʃər- | 'be abundant' |

Further, there are root-morphemes that occur in all the three derived forms: passive reflexives with their direct causative and indirect causative counterparts as in the examples below:

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**24.** It is noted that a number of verbal roots occur in the derived forms without the derived meaning (cf. Hetzron 1977: 73). One of the examples he provided is *teʔepərə* 'accept, receive' (cf. *epərə* 'help').

(29)

| *Derived forms occurring in direct causative* | | *Derived forms occurring in passive reflexive and indirect causative* | |
|---|---|---|---|
| a-rə̃k'ət'- | 'winnow (TR)' | tə-rə̃k'ət'- | 'be free from chaff, bran, husk' |
| | | at-rə̃k'ət'- | 'order to winnow/facilitate to winnow' |
| a-rə̃fəs- | 'winnow (TR)' | tə-rə̃fəs- | 'be clear from chaff, winnow (INTR)' |
| | | at-rə̃fəs- | 'order to winnow/facilitate to winnow' |

A certain number of root-morphemes occurring in only one derived form: either in indirect causative or direct causative still or passive reflexive form (though the last two are very rarely) have no corresponding simplex root, but with simplex meaning, that is also meant in only one derived form without derived meaning. Some examples from are provided below:

(30) *Derived forms occurring in only indirect causative:*

| | |
|---|---|
| at-k'$^{w}$ana- | 'imitate in a mocking manner the speech of someone, imitate the action of' |
| at-x$^{j}$apər- | 'talk back, respond (a rude child to his father)' |
| at-w̃agəz- | 'argue or compete with one another over to do or not to do something' |
| at-βakər- | 'misdirect'(probably from *bəkərə* 'lack, miss, lose') |

However, with the exception of *at-βakərə*, those that possess type C patterns from (30) also have reciprocal reading, as more than one participant is involved in the actions expressed by the derived verbal forms. For instance, in *at-x$^{j}$apərə* there is someone who speaks first, and to whose speech another speaker responds. A similar situation occurs in the cases of *at-w̃agəzə* and *at-k'$^{w}$ana.* Thus, these verbs contain two or more subjects, both of which can also act as an agent (see 4), though the way as well as the purpose for which they act may vary. For the verb *at-βakərə* 'misdirect', it can be noted that the 3SGM object marker *-n-* can be affixed to the verb stem showing a causative or a factive, which is used as subjectless impersonal as in *at-βakərə-n-ɨ* 'he misdirected' (lit.: 'it caused him to misdirect'). Another verb of this type is *at-ʒapərə-n-ɨ* 'he felt a bit better/recover' (probably from *ʒəpərə* 'return' (lit.: 'it made him to feel better') and *at-f$^{w}$aɲə-n-ɨ* 'he felt a bit better' (probably from the simplex root of type A: *a-f$^{w}$əɲə* 'take rest').[25]

**25.** Hetzron (1977: 73) also provided two typical examples with the causative in *a-* for the situation: *aβənəgə-nɨ* 'he escape' (lit.: 'it caused him to escape') and *aβœnərə-nɨ* 'he yawned'(lit.: 'it made him yawn') by stating that in some cases a causative or a factive is used impersonally with no subject for what would be an intransitive verb in other languages. His first example, however, may occur with a noun phrase acting as a subject when it is used as a transitive verb, as in *wədərə-xuta aβənəgə-nɨ* 'he takes off the rope (may be from neck of a calf)'.

(31) *Derived forms occurring in only passive reflexive:*
tə-kaʃə- 'have digestion problem'
tə-ʧʼəma- 'wait for a short while'
tə-rmamətʼ- 'entice, coax'

Finally, it is a common morpho-phonemic rule in Inor that the alveolar stop *t* of the indirect causativiser *at-* is totally assimilated to the following consonant segment when attached to a stem starting with one of the alveolar fricatives *s* or *z*, alveolar stop *d* and alveo-palatals *ʃ, ʒ, ʧ, ʤ, c and gʲ* (see 3.2). Further, it is ejectivized when followed by the ejectives *tʼ* and *kʼ*.

## 8. Conclusion

This paper aims to provide a description of the verbal derivation of Inor. It applies a qualitative research method. The study has examined a variety of ways of deriving Inor verbs. Three derivational prefixes, *tə-*, *a-*, *at-*, are identified as medio-passive/reflexive, direct causative and indirect causative markers, respectively. A verb can be formed from a stem by affixation process, showing the reflexivity of the action. In causative actions, which are derived by attaching the derivatives *a-* and *at-* to the simplex stems, the agent is involved in the action either by participating in action or by initiating it. It is attested that repetition of the penultimate root-consonant derives the frequentative actions, while the insertion of the vowel *a* shows the reciprocity of the action. There are, however, certain root-morphemes that are restricted to specific derivations. On the other hand, derived verbs without simplex form occur.

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## Symbols and abbreviations

| | | | |
|---|---|---|---|
| // | underlying or hypothetical form | INS | instrumental |
| [] | phonetic realisation | IPFV | imperfective |
| * | hypothetical or ungrammatical form | LOC | locative |
| ˜ | Nasal diacritic | M | masculine |
| : | Long vowel | N | noun |
| >/→ | Implication | O | object |
| ACC | accusative | PASS | passive |
| ADJVR | adjectiviser | PL | plural |
| C | consonant | POSS | possessive |
| CVB | converb | PFV | perfective |
| DEF | definite | PST | past |
| D:CAUS | direct causative | TR | transitive |
| F | feminine | V | vowel |
| ID:CAUS | indirect causative | 1, 2, 3 | first, second and third persons |
| IMPR | impersonal | SG, PL | singular, plural |
| INTR | intransitive | | |

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## Appendix

Direct causative derivatives of type A of intransitive:

| (1) | *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|---|
| | nəpərə | 'live' | a-ɾ̃əpərə | 'allow to live' |
| | bəsərə | 'ripe, cook (INTR)' | a-βəsərə | 'ripen, cook something' |
| | tənəfə | 'be saved' | a-tənəfə | 'save' |
| | bɨrək'ət'ə | 'spoiled (child)' | a-βrək'ət'ə | 'make (a child) spoiled' |

Direct causative derivatives in bi- and tri-radical roots of type C of intransitive:

| (2) | *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|---|
| | kaka | 'dry (INTR)' | a-kaka | 'make dry' |
| | sasa | 'be thin' | a-sasa | 'make thin' |
| | zak'$^{w}$ərə | 'talk nonsense' | a-zak'$^{w}$ərə | 'cause to talk nonsense, talk more' |
| | zapətə | 'go astray' | a-zapətə | 'make miss one's way' |

Direct causative derivatives of A of transitive verbs:

| (3) | *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|---|
| | zəkədə | 'remember, recall' | a-zəkədə | 'make someone remember, recall' |
| | t'əbət'ə | 'hold, grasp, catch' | a-t'əbət'ə | 'make someone hold, grasp, catch' |
| | sɨrəsərə | 'level the floor of a house' | a-srəsərə | 'make someone level the floor of a house by scraping off the uneven place' |

Direct causative derivatives bi- and tri-radical roots of type B of transitive verbs:

| (4) | *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|---|
| | nek$^{j}$əβə | 'ride' | a-ɾ̃ek$^{j}$əβə | 'help to mount, ride (on a horse)' |
| | fenəgə | 'carry, load' | a-fenəgə | 'make someone to carry, load' |

Unaccusative verbs lacking causatives with *a-*:

| (5) | *Simplex verb root* | | | |
|---|---|---|---|---|
| | fənəβə | 'break off (bread)' | *a-fənəβə | 'make break off' |
| | səpərə | 'break' | *a-səpərə | 'cause to break' |
| | k'ənəβə | 'insult' | *a-k'ənəβə | 'make to insult' |
| | dənəgə | 'hit' | *a-dənəgə | 'make to hit' |

Simplex root-morphemes whose meaning is totally changed when the direct causative a- is attached to them:

| (6) | *Simplex verb root* | | *Direct causative* | |
|---|---|---|---|---|
| | xəna | 'call up' | a-xəna | 'shout, be noisy' |
| | bəta | 'inherit, take' | a-βəta | 'marry off' |
| | x$^{w}$əʔə [xoʔə] | 'spill (TR)' | a-x$^{w}$əʔə [axoʔə] | 'spill (INTR)' |
| | bənt'ə | 'deceive, cheat' | a-βənt'ə | 'bias' |
| | ʃəgərə | 'change' | a-ʃəgərə | 'exchange' |

Indirect causative derivations formed from bi- and tri-radical roots of simplex stems of type A:

(7)

| *Simplex verb root* | | *Indirect causative* | |
|---|---|---|---|
| bəta | 'inherit' | atβeta | 'order to inherit' |
| fənəxə | 'tolerate' | atfenəxə | 'make to tolerate' |
| ʔətərə | 'kill' | ateʔetərə | 'order to kill' |
| səpərə | 'break' | assepərə | 'cause to be broken' |
| dənəgə | 'break' | addenəgə | 'cause to be hit' |

Indirect causative derivations formed from tri-radical roots of simplex stems of type B (both with palatalisation and with vowel *e*):

(8)

| *Simplex verb root* | | *Indirect causative* | |
|---|---|---|---|
| ʤəpərə | 'finish' | at-ʤəpərə [adʒʤepərə] | 'order to finish' |
| gʲekʲədə | 'accompany' | at-gʲekʲədə [adʲekʲədə] | 'order to accompany' |
| met'ərə | 'choose' | at-ɱet'ərə[atɱet'ərə] | 'order to choose, select' |

Indirect causative derivations formed from bi- and tri-lateral roots of simplex stems of type C:

(9)

| *Simplex verb root* | | *Indirect causative* | |
|---|---|---|---|
| banərə | 'demolish' | at-banərə [atβanərə] | 'order to demolish' |
| k'at'ərə | 'knot' | at-k'at'ərə [at'k'at'ərə] | 'order to spend the day' |

Set of examples showing the influence of the causative prefix on the first root:

(10)

| *Simplex verb root* | | *Indirect causative* | |
|---|---|---|---|
| dənəgə | 'hit' | *at-dənəgə ˃ addenəgə | 'order to hit' |
| zəmədə | 'pull' | *at-zəmədə˃ azzemədə | 'order to pull' |
| səpərə | 'break' | *at-səpərə ˃ assepərə | 'order to break' |
| ʒəpərə | 'return' | *at-ʒəpərə ˃ aʒʒepərə | 'make to return' |
| ʧəkərə | 'cook' | *at-ʧəkərə ˃ atʃʧekərə | 'make to cook' |
| ʤəkəβə | 'bump' | *at-ʤəkəɱ˃ adʒʤekəβ | 'force to bump' |
| t'əna | 'hate' | *at-t'əna ˃ at't'ena | 'make to hate' |
| ʧ'arə | 'load (v)' | *at-ʧ'arə ˃ atʃ'ʧ'erə | 'order to load' |

(11)

| *Simplex verb root* | | *adjutative* | |
|---|---|---|---|
| nəsa | 'lift up' | at-r̃asa | 'help in lifting up' |
| wəka | 'pound' | at-waka | 'give help in pounding' |
| fə̃ʔə̃r̃ə̃ | 'be ready' | at-fə̃ʔə r̃˜ə˜ | 'help in making something ready' |
| səpərə | 'break' | at-sapərə[26] | 'help in making breaking' |

**26.** This also has a simplex meaning: it means 'feel sick', but always occurs with object agreement markers.

Medio-passive and/or reflexive derivations formed from trilateral roots of simplex stems of type A, B and C:

(12)

| | *Simplex verb root* | | *Medio-passive/Reflexive* | |
|---|---|---|---|---|
| Type A: | k'əpa | 'smear' | təkʼəpa | 'be smeared/smear oneself' |
| | səpərə | 'break' | təsəpərə | 'be broken/break oneself' |
| | dənəgə | 'hit' | tə-dənəgə | 'be hit/hit oneself' |
| | sətəβə | 'curse' | tə-sətəβə | 'be cursed/curse oneself' |
| | dəbər | 'add' | tədəbərə | 'join oneself in communal self-help organization' |
| Type B: | metʼərə | 'select' | təɱetʼərə | 'be selected/separate oneself' |
| | mekərə | 'curse' | təɱekərə | 'be burnt/burn oneself' |
| Type C: | manəxə | 'captured' | təɱanəxə | 'be captured in war' |
| | banərə | 'demolish' | təβanərə | 'demolish oneself' |
| | kʼatʼərə | 'knot' | təkʼatʼərə | 'be knotted/knot oneself' |
| | ʔiraʔərə | 'mix' | təʔraʔərə | 'be mixed/mix oneself' |

(13)

| | *Simplex verb root* | | *Frequentative* | |
|---|---|---|---|---|
| Type A | with *ə* between the reduplicated consonants: | | | |
| | kəfədə | 'open' | kifəfədə | 'open this and that' |
| | fənəβə | 'break off edge' | firənəβə | 'break into pieces' |
| | səpərə | 'break' | siβəpərə | 'break into several pieces' |
| | kətəfə | 'chop' | kitətəfə | 'chop this and that' |
| Type A | with *a* between the reduplicated consonants: | | | |
| | *Simplex verb root* | | *Frequentative* | |
| | nəsa | 'lift' | nisasa | 'lifted frequently' |
| | nəkədə | 'touch' | nikakədə | 'be touched this and that' |
| | dəmədə | 'mix' | dimamədə | 'be mixed this and that' |
| Type B | with *e*: | | | |
| | metʼərə | 'choose' | mitʼetʼərə | 'choose many things repeatedly' |
| | mezərə | 'choose' | mizezərə | 'count this and that repeatedly' |
| Type B | with palatalisation: | | | |
| | ʒəʔərə | 'split wood' | ʒiʔəʔərə | 'split wood into several pieces' |
| Type C | ʃakədə | 'distribute' | ʃikakədə | 'divide something several places' |
| | kʼatʼərə | 'knot' | kʼitʼatʼərə | 'knot this and that' |

In the process of formation of frequentative or reduplicative, the set of examples shows that the first occurrence of the repeated radical has the weak alternant, while the second has the strong one in the perfective:

(14)

| *Simplex verb root* | | *Frequentative* | |
|---|---|---|---|
| fəndə | 'cut in half' | firənədə | 'cut into small pieces' |
| tənəxə | 'make incisions' | tirənəxə | 'make incisions seriously' |
| səpərə | 'break' | siβəpərə | 'break into small pieces' |
| fənəɱə | 'break off edge' | firənəɱə | 'break into pieces' |

Examples of the verb stems exceptional to consonant alternation in frequentative derivation in the perfective:

| (15) | *Simplex verb root* | | *Frequentative* | |
|---|---|---|---|---|
| | t'əbət'ə | 'seize' | tɨbəbət'ə | 'seize repeatedly' |
| | dəpərə | 'add' | dɨpəpərə | 'add again and again, add from different varieties' |
| | dənəgə | 'hit' | dɨnənəgə | 'hit seriously' |
| | dənəsə | 'break off edge' | dɨnənəsə | 'break off edge repeatedly, here and there' |
| | k'ənəfə | 'hit' | k'ɨnənəfə | 'cut several branches at a time, break off something repeatedly' |
| | ʔepərə | 'help' | ʔipepərə | 'help someone frequently' |

The surface biliteral verbs which diachronically lost either medial or final weak consonant.

| (16) | | *Simplex verb root* | | *Frequentative* | |
|---|---|---|---|---|---|
| | Type A | nəsa /nsA/ | 'pick' | nɨsasa | 'pick up several things' |
| | | gəfa /gfA/ | 'push' | gɨfəfa | 'push this and that' |
| | | k'əpa /k'βA/ | 'fold' | k'ɨpəpa | 'fold repeatedly' |
| | | nətʃə /nt'j/ | 'tear' | nɨtʃ'ətʃ'ə | 'take a bit of meat, pluck out repeatedly' |
| | Type B | bet'a /bt'A/ | 'dilute milk with water' | bɨt'et'a | 'dilute milk with high amount water repeatedly' |

| (17) | | *Simplex verb root* | | *Reciprocals* | |
|---|---|---|---|---|---|
| | Type A: | gəpa- | 'enter' | tə-gapa- | 'marry one another' |
| | | zəmədə | 'pull' | tə-zaməd- | 'pull each other' |
| | | nəmədə | 'love' | tə-ɾ̃ãməd- | 'love each other' |
| | | tʃ'ɨβətʃ'ək'ə | 'argue' | tə-tʃ'βatʃ'ək'- | 'argue each other' |
| | Type B with *e*: | met'ərə | 'choose' | təŋajt'ər- | 'choose one another' |
| | | mezərə | 'count' | təŋajzər- | 'count each other' |
| | Type B with palatalization: | | | | |
| | | ʒəʔərə | 'split' | təʒaʔərə | 'split each other severely' |
| | Type C: | tʃ'afərə | 'scratch' | tə-tʃ'afər- | 'scratch each other' |

Bound roots with lexicalized affixes:

| (18) | *Derived forms occurring in direct causative* | | *Derived forms occurring in passive reflexive* | |
|---|---|---|---|---|
| | a-rəʃə | 'make mattress, build, knit' | tə-rəʃə- | 'be made (mattress), built' |
| | a-ɾ̃ək'ət'- | 'winnow' | tə-ɾ̃ək'ət'- | 'be winnowed' |
| | a-xəbəd- | 'honor, respect' | tə-xəbəd- | 'be honored, respected' |
| | a-k'ʲamət'ə | 'beautify' | tə-k'ʲamət'- | 'beautify oneself' |
| | a-t'awər- | 'decorate, prepare well' | tə-t'awər- | 'be prepared well' |
| | a-βranəʔ- | 'impress, satisfy (TR)' | tə-βranəʔ- | 'be impressed, be satisfied' |

(19)

| *Derived forms occurring in indirect causative* | | *Derived forms occurring tə-, but with simplex meaning* | |
|---|---|---|---|
| at-ʃəkəβə | 'force to stand, erect' | tə-ʃəkəβ- | 'stand up, erect (INTR)' |
| at-k'aw̃- | 'make to drink hot drinks' | tə-k'aw̃- | 'drink hot drinks' |
| at-saʔar- | 'make to ask' | tə-saʔar- | 'ask' |
| at-ř̃akəs- | 'make quarrel' | tə-ř̃akəs- | 'quarrel' |
| at-ř̃awəʔ- | 'make to run' | tə-ř̃awəʔ- | 'run' |
| at-ʒenər- | 'throw across' | tə-ʒənər- | 'cross over' |

(20)

| *Derived forms occurring in direct causative* | | *Derived forms occurring in passive reflexive and indirect causative* | |
|---|---|---|---|
| a-ř̃ək'ət'ə | 'winnow (TR)' | tə-ř̃ək'ət'ə | 'be free from chaff, bran, husk' |
| | | at-ř̃ek'ət'ə | 'order to winnow/facilitate to winnow' |
| a-ř̃əfəsə | 'winnow (TR)' | tə-ř̃əfəsə | 'be clear from chaff, winnow (intr.)' |
| | | at-refəsə | 'order to winnow/facilitate to winnow' |
| a-zrabət'- | 'make eager' | tə-zrabət'- | 'be eager' |
| | | at-zrabət'- | 'cause to make eager' |
| a-rbabət'- | 'bake thinly (for wusa-bread)' | tə-rbabət'- | 'be very thin (for wusa-bread)' |
| | | at-rbabət'- | 'order to make very thin' |

(21) *Derived forms occurring in only indirect causative:*

| | |
|---|---|
| at-k'$^{w}$ana:- | 'imitate in a mocking manner the speech of someone, imitate the action of' |
| at-x$^{j}$apər- | 'talk back, respond (a rude child to his father)' |
| at-w̃agəz- | 'argue or compete with one another over to do or not to do something' |
| at-βak'ər- | 'make great effort, succeed, endeavor to do something' |
| at-βakər- | 'misdirect'(probably from *bəkərə* 'lack, miss, lose') |
| at-ranəs- | 'lose (interest to eat or drink due to undeliciousness of it)' |
| at-βad- | 'counsel each other, discuss a matter and take advice' |
| atʃtʃ'əma- (< at-tʃ'əma) | 'not answer having been called, eavesdrop, overhear' |
| assepər-[27](< at-sepərə) | 'miscarriage' |
| atʃəpərə- (< a-tʃəpərə) | 'send someone to market to buy something' |

(22) *Derived forms occurring in only passive reflexive:*

| | |
|---|---|
| tə-kaʃə- | 'have digestion problem' |
| tə-tʃ'əma- | 'wait for a short while' |
| tə-rmamət'- | 'entice, coax' |
| tə-rm$^{w}$am$^{w}$ət'- | 'go around unsavory places' |
| tə-frək'ək'- | 'be proud and disrespectful, feel superior, be arrogant' |

**27.** This form has the same form as the indirect causative form of the simplex verb stem of type A: *səpərə* 'break'. (See 3.2).