Causative of the 'Passive' in Amharic

Bezza Tesfaw AyalewUniversity of Illinois at Urbana-Champaign

1. Introduction

Amharic is a Semitic language spoken in Ethiopia. Like other Semitic languages, Root-and-Pattern is an important derivational device of the verbal system of the language. Root-and-Pattern morphology provides the templates for the combination of the root consonants with the theme vowels to derive basic stems, which may be actual or potential verbs. Affixation applies to the outputs of the Patterns to derive verbs with functions such as passive and causative. In general passive verbs are derived by attaching the prefix 't-'. Causative verbs are derived variably by applying 'a-', 'as-', or 'at-'.

The description of 'a-' is relatively simple; it applies to basic non-agentive stems to derive simple causative/agentive or transitive verbs. The description of 'as-' is more complicated. First, the distribution of 'as-' is not limited in terms of agenitivity of the base; it is known to apply on agentive and non-agentive stems. Second, the causative meaning of a derived 'as-stem' is deduced to be a realization of the causative of one or more of the stems within a system of derived stems, whereas the affix applies only on the basic stem. The example below illustrates the system of derived stems of a verb, based on the most common stem Pattern (labeled 'basic stem'), to elaborate the traditional description of the function of 'as-'.

1) Basic stem	Gloss	t-stem	a-stem	as-stem	as-stem interpretation
a) gəddələ	'kill'	t-gəddələ		as-gəddələ-	(i) causative of the transitive
					(ii) causative of the passive
b) wət't'a	'go out'		a-wət't'a	as-wət't'a	indirect causative
c) fəlla	'boil (intr.)'	t-fəlla	a-fella	as-fella	(i) indirect causative
					(ii) causative of the passive

'as-' is commonly described as causative of the transitive, where the basic stem is agentive or transitive 1a); as indirect causative, where the basic stem is non-agentive or intransitive 1b) and 1c); and as causative of the passive, where there is a passive stem in the system of derived stems 1a) and 1c). The causative of the transitive interpretation of 'as-stem' causatives is rather marginal in its acceptability. The so-called indirect causative and causative of the passive interpretations are essentially the same – in both situations there is an invisible (passive) doer between the causer and the undergoer. The unified function can be called indirect causation. Now, the problem is explaining how a single affix 'as' operates differently on agentive and non-agentive bases to bring about the same effect of indirect causation.

The other affix 'at-', which never surfaces as such in the language, was analyzed by Leslau (1943) as a causative affix on historical grounds¹. However, Demoz (1964) and Berhane (1992) described it as a composite of 'a-' and the 't-' of a reflexive/reciprocal stem assimilating to the initial radical of the stem. Reflexive/reciprocal stems being derived by the same passive affix 't-', the causative affix

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¹ Leslau (1943) analyzes causatives such as *aggaddələ* 'cause the killing each other of' as '*at-gaddələ*' recognizing a causative affix 'at-' similar to the one found at surface level in other South Ethio-Semitic languages such as Gurage and Harari.

remains to be 'a-'. This analysis leads toward a morphologically grounded explanation of indirectness of causation in 'as-stem' causatives thereby leading to a unified account of causativization in Amharic.

Despite the strong intuition that 'as-stem' causatives are causatives of the passive, there is a long held view that there is no formal evidence for a passive base for the causativization:

[Causative of the passive] is perhaps the most frequent and the most characteristic meaning of the as-stem. This is the meaning that comes most readily to mind when one thinks of the as-stem. Of course there is no overt formal evidence to show us that the stem is derived from a passive rather than the basic stem. (Demoz, 1964: 38)

In this paper I argue that there is formal evidence to show that the so-called 'as-stem' causatives can be re-analyzed as 'a-stem' causatives of 'passive' bases. For this purpose, passivization and causativization of the outputs for all the derivational Patterns of Amharic verbs will be examined. In order to provide a background of verb derivation in Amharic, the two important devices of word formation, namely, Root-and-Pattern morphology and affixation, will be briefly discussed in section 2. Basic and derived stems will be analyzed in terms of their Argument Structure (a-structure) to determine whether a derived causative can be passivized and the other way around (section 4). Derived causative stems with causative of the passive or indirect causative interpretation are examined for possible intermediate passive morphology in their formation. A critical review of the previous studies is presented in section 3. Section 5 concludes the paper.

2. The Derivational Paradigm of Amharic Verbs

Like all the Semitic languages, the prototypical root of Amharic contains three radicals. Those with a greater or fewer number of radicals are explained by historical changes of root extension and reduction (for the discussion on the tendency of root extension and reduction see Yimam (1999)). Four basic templates can be recognized as derivational patterns (see Bender & Hailu (1978) and Podolsky (1982) for the verbal patterns). Traditionally the radicals of the templates in their order of occurrence are schematically represented with numerals. In Table 1, for simplicity of demonstration, only triradical roots and the productive valency-changing affixes are represented. Also for economy of space, derivational Pattern-IV (-12ə3ə22ə3-) is omitted. In fact, this Pattern is the less productive of all the Patterns and it only takes 'a-' or 't-', not 'as-' or 'at-'.

A root can rarely derive actual stems in all of the Patterns without affixation. In comparison with Patterns I or III there are fewer actual stems derived from Pattern-II before affixation. In some cases Pattern-II could be an alternate form of Pattern-III.

The meaning associated with the derivational Patterns cannot be neatly analyzed. However, in relative terms, Patterns I and II complement each other in realizing a simple meaning of the root, whereas Patterns III and IV seem to multiply, intensify, or extend the action or effect of the simple stem in various ways. For example, nət't'əl- means 'separate or single out something (once)', nət'at't'əl- means 'separate many things from each other', and a-nt'ələt't'əl- means 'separate something intensely (= pick out) / hang'.

'a-' and 't-' can apply to the outputs of any of the Patterns to derive, respectively, causative and passive/reflexive stems, unless restricted for semantic incompatibility with a particular base. 'as-' is generally restricted to outputs of Pattern-I with a few exceptions². 'at-' is found only with verbs formed by Patterns II and III.

² If a verb has a derived stem in Pattern-II, then it will not have one in Pattern-I, and the Patten II stem will be the simple form of the verb and may take 'as-'.

Affix	Pattern-I -1ə22ə3- *dərrəg-		Pattern-II -1a22a3- darrag-		Pattern-III -1ə2a22ə3- *dərarrəg-	Gloss
'a-' 'as-'	a-dərrəg-	'do' 'cause X^3 be done'; 'cause Y do X'	*a-darrəg-		a-dərarrəg-	ʻdo ^I '
'at-' 't-'	t-dərrəg-	'be done'		'cause do ^R ' 'be applied; do ^R '		'cause do ^R ' 'do ^R '
'a-' 'as-'	*a-nət't'əl-	'cause X be singled',	*nat't'əl- *a-nat't'əl-		nət'at't'əl- *a-nət'at't'əl-	'separate ¹ '
'at-' 't-'	t-nət't'əl-	'cause Y single X' 'be singled'		'cause separate ^R 'be separated ^R '		'cause separate ^R ', 'separate ^R '
'a' 'as-'	gəddəl- *a-gəddəl- as-gəddəl-		*gaddəl- *a-gaddəl- ⁴		gədaddəl- *a-gədaddəl- 	ʻkill ^I ʻ
'at-' 't-'		'be killed'	ag-gaddəl- t-gaddəl-	'cause kill ^R ' 'kill ^R '	ag-gədaddəl- t-gədaddəl-	ʻcause kill ^R ' ʻkill ^R '
'a-' 'as-'	*a-fəlləg-	'search; seek' 'cause X be sought'; 'cause Y seek X'	*a-falləg-		<i>fəlalləg-</i> *a-fəlalləg-	'seek ^I '
'at-' 't-'	t-fəlləg-	'be sought	af-falləg- *t-falləg-	'cause seek ^R '		'cause seek ^R ' 'seek ^R '

Table 1: The Derivational Paradigm of Amharic Verbs

3. Previous Studies

Every scholar who wrote on Amharic verb derivation agrees that 'a-' and 'as-' introduce some kind of causality to the derived stem. The descriptions and comparisons of these affixes focused mainly on the transitive property of their base, and on the directness of causation with respect to the ultimate event expressed in the derived verb. Various scholars (Dawkins,1960; Demoz, 1964; Leslau, 1967, 1995; Appleyard, 1972; Bender & Hailu, 1978 among others), characterized 'a-' relatively consistently along those criteria, that it derives simple transitive and direct causative stems out of intransitive and non-causative bases. This function of 'a-' has been explained in terms of a change in the argument structure of the base, i.e., adding an agent (Berhane, 1992) or a causer (Amberber, 1996).

The other affix 'as-' is described as deriving causative of the transitive (Appleyard, 1972; Leslau, 1967 and 1995), double causative (Appleyard, 1972; Bender & Hailu, 1978), indirect causative (Dawkins, 1960), and causative of the passive (Demoz, 1964 and Leslau's 1967, 1995). Unlike the case of 'a-', the function of 'as-' is mainly deduced from within the system of the derived stems (see Demoz, 1964 and Appleyard, 1972) without analyzing the formation in terms of affix-base relations. For example, the characterization of 'as-' in as-fəlla 'make someone boil something' as causative of

³ 'X and Y' represent the arguments of a verb; a raised 'I' indicates Iterative or Intensive function of the verb and a raised 'R' indicates Reciprocative function of the verb.

⁴ A homophonous verb can be derived with the meaning 'tilt (intr.)', which is not from the same root.

the transitive, double causative, or indirect causative does not transpire from the affix-base relation, since the stem fəlla is neither transitive nor causative. However, it can be inferred as a function of transitivization and/or causativization within the system of derived stems of the same base, such that where the basic stem is intransitive the a-stem is the realization of the transitive or direct causative, whereas the as-stem is the realization of the indirect or double causative; all from the basic stem: fəlla 'boil' > a-fəlla 'boil tr.' > as-fəlla 'cause boil tr.'

The derivation of an indirect and/or double causative verb cannot be formalized without accounting for the direct or internal causer/agent as either being lexically encoded in the base or as somehow introduced by the causative affix itself or by another intermediate affix. Similarly, the derivation of a verb with a causative of the passive interpretation should be explained in terms of a passive base of the causative affix or as a double function of the affix: simultaneously passivizing while causativizing. The major problem in determining the function of 'as-' is a form-meaning mismatch such that it has to be stated that asfəlla is formed by combining 'as-' and fəlla, but has the meaning of as-a-fəlla or as-t-a-fəlla; or as-gəddələ is formed by combining 'as-' and gəddələ, but has the meaning of as-t-gəddələ or as-gəddələ.

Berhane (1992) and Amberber (1996) have attempted to solve this puzzle by explaining the syntactic structures and morphological manifestations of the causatives in Amharic. Berhane (1992) initially analyzed 'a-' as an agentive affix introducing an agent to basically agentless, ergative (unaccusative) verbs. Then, building on the observation that the passive morpheme 't-' assimilates⁵ with the first radical of the base in reciprocal-passive interaction as in: aggaddələ ← a-t-gaddələ; assabbərə ← a-t-sabbərə, he argues that once the agent of such verbs has been absorbed by passivization, they can take the agentive affix 'a-', but not 'as-'. He infers that 'as-' should be the only causative morpheme (implying that a causative morpheme introduces a causer to a basically agentive verb). In passing he suggests an alternative analysis which relates the two morphemes 'a-' and 'as-', as pointed out to him in personal communication by V. Manfredi. The proposal is to assume that 'as-' is composed of 'a-' and s-, where the role of 'a-' is to add an agent to agentless verbs, whereas the role of s- is to "embed one argument structure within another" (p. 67).

Berhane's analysis is rather sketchy and incomplete. He noted that the acceptability of so-called indirect/double causative interpretation of basically agentive verbs such as goddələ is controversial (see p. 63), however, he did not give any account for the derivation of the uncontroversial passive-causative interpretation. Although his proposal of decomposing 'as-' into 'a-' and s- was a novel approach toward a single causative morpheme, he has not developed it further.

Amberber (1996) attempted to provide a more detailed and principled account of causativization in Amharic. He maintains the view that 'a-' and 'as-' are two separate prefixes. In his syntactic approach to the process of causativization, he assumes two types and levels of phrase structure: l-syntax, a lower level of Lexical Relational Structure, and s-syntax which is the conventional syntax. He classifies the Amharic verbs into two Inchoative-Causative Alternation Patterns (henceforth referred to as ICAP to differentiate them from the derivational Patterns). He claims that 'a-' applies at l-syntax to derive the causative or transitive of ICAP-I verbs such as *mot't'a* 'come', whereas 'as-' applies at s-syntax to derive causative of the output of l-syntax. Even though he agrees that "...the natural reading of the causative sentences...is that in which the external causer has acted indirectly" (Amberber,1996:88), he rejects the possibility of a passive construction underlying the causative structures. That is mainly because the passive marker doesn't surface as such in causatives. In an attempt to maintain his position that the causative prefix 'as-' can select for the inchoative verb, which according to him includes 't-' derived forms of ICAP-II verbs such as səbbərə 'break', he tries to explain the non-occurrence of forms such as *as-t-səbbər- by postulating a morphological constraint which rules out the co-occurrence of any of the valency-changing prefixes.

The important question, "why is the passive-causative interpretation of 'as-'-causatives more frequent, less controversial, and more natural than the double/indirect one?" remains unanswered. Also the failure to analyze the behavior of the affixes viz a viz all the Patterns of derivation is a major fault in the previous analyses of causativization in Amharic.

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⁵ The so-called assimilation is not a simple phonological process in which 't' acquires some of the features of the immediately following consonant in a given phonetic environment (see Hudson 1978).

In the present paper I share the intuition that the natural reading of 'as-'-derived causatives is one in which the external causer has acted indirectly. Against Amberber (1996), I argue that the indirect reading is possible because of an underlying process of passivization under causativization. Based on the Root-and-Pattern morphology of the Amharic verbal system, I observe that 'as-' applies almost exclusively to Pattern-I stems, and cannot as such be generalized for all the other patterns. Expanding Berhane's (1992) suggestion of analyzing 'as-' into 'a-' and 's-' I further argue that the 's-' in 'as-' is the realization of the underlying medio-passive morpheme 't-' in Pattern-I stems, whereas the same morpheme under causativization surfaces as part of a geminate in the initial radical of Pattern-II and Pattern-III stems.

4. Argument Structure and Affixation

4.1. Argument Structure of the Base

Following Grimshaw (1990) I assume that the argument structure of a predicate is a reflection of its lexical semantics (lexical conceptual structure) and the arguments are structured in such a way that the external argument is the most prominent while the internal arguments also have prominence, relative to each other.

The following is a representation of possible argument structures (a-structures) of a basic or derived predicate according to prominence theory of a-structure.

- 2) a) ((Theme)) = unaccusatives
 - b) (Agent)/(Exp) = unergatives
 - c) (Agent (Theme)) = transitive agentives
 - d) (Agent (Loc/Goal (Theme))) = ditransitives

The actual stems derived from any of the derivational Patterns can basically be of any one of the four kinds of a-structures. Related derived Patterns of a root can only have one of those a-structures throughout, that is to say, that derivation in any of the Patterns does not affect the basic lexical conceptual structure or a-structure of a root unless there is semantic drift. For example, wərrəd- 'descend' (Pattern-I), lak'k'wət'- 'mush intr.' (Pattern-II), fərarrəs- 'crumble' (Pattern-III), are all unaccusatives. If the roots of those verbs can have derived stems in the other patterns, the derived stems will remain as unaccusatives. In general, the patterns of derivation do not change a-structures.

4.2. Affixation

The affixes on the other hand, derive new a-structures by adding or reducing the arguments of their bases. Let us now examine the individual affixes in terms of their effect on the a-structure of the derived forms.

4.2.1. 'a-' as a Causative Affix

The prefix 'a-' is required only in verbs that lexically lack an agent argument. Actual unaccusative stems lack an agent and can readily take the affix.

3) 'a-' derived agentives

a)	Base	Gloss	a-stem	Gloss
	wərrəd-	'descend'	a-wərrəd-	'bring down'
	k'əllət'-	'melt'	a-k'əllət'-	'melt tr.'
	a-mət't'a	'come'	a-mət't'a	'bring'
	t'ək'k' ^w ər-	'turn black'	a-t'ək'k' ^w ər-	'blacken'

Following the generalization that a root retains the same a-structure throughout the patterns, a bound stem that takes 'a-' can be considered as unaccusative. Even the bound stems of those roots which never derive

actual verbs in any of the patterns before affixation can be put in the same category of 'lacking an agent' as long as the actual verbs are derived immediately by 'a-' affixation.

Some of these derived verbs are like unergatives and have a single agent argument, which is represented as (Agent).

b)	Base	Derived	Gloss
	*gəssa	a-gəssa	'belch'
	*f ^w ač'č'-	a-f ^w ač'č'-	'whistle'
	*lək'k'əs-	a-lək'k'əs-	'cry'
	*nəbənnəb-	a-nəbənnəb-	'murmur'

Some are like transitives and have an a-structure of (Agent (Theme)).

c)	Base	Derived	Gloss
	*wəggəz-	a-wəggəz-	'condemn'
	*nət't'əf-	a-nət't'əf-	'make bed'
	*bət't'ər-	a-bət't'ər-	'comb'
	*mərrət-	a- mərrət-	'produce'

Some are like bi-transitives and have an a-structure of (Agent (Goal/Loc (Theme))).

d)	Base	Derived	Gloss
	*k'əbbəl-	a-k'əbbəl-	'deliver'
	*bəddər-	a-bəddər-	'lend'
	*bəssər-	a-bəssər-	'tell good news'
	*mələkkət-	a-mələkkət-	'demonstrate'

Obviously, in the absence of an agent in unaccusatives, the new argument introduced by 'a-' is associated with the first (action) sub-event and takes prominence in the derived a-structure. The new argument is just like the inherent agent of a lexically agentive/ causative verb such as gəddəl- 'kill'.

A lexically agentive/ causative verb does not take 'a-'. However, there is a subclass of agentive verbs known as ingestives, such as bəlla 'eat', t'ət't'a 'drink', t'əbba 'suck', etc., which take 'a-'. The application of 'a-' on such verbs seems to weaken the generalization that the affix takes non-agentive bases. Amberber (1996) attempted to save the generalization by analyzing ingestive verbs as ditransitives in which the agent argument is co-indexed with a goal argument, so that it alternates with the goal argument in projecting into the syntax. The ingestive verb becomes agentive if the agent projects, otherwise, it becomes a non-agentive verb if the goal projects. The latter is the sense in which ingestives are thought to take the agentive prefix 'a-'.

Another alternative is to induce the concept of affectivity⁶ in the analysis of the semantic role of the agent argument. The subject of an ingestive verb can be viewed as being affected by the theme, albeit, via its own action, and therefore, becomes less of a 'pure' agent and more of an experiencer, a recipient, or a beneficiary. Hence, a 'pure' agent introduced by 'a-' fits in the derived a-structure and assumes prominence.

The prohibition of direct 'a-' affixation to agentives can be explained as the avoidance of conflict in prominence between an inner agent and an external agent/causer. 't-'-derived verbs are non-agentive, in the sense that the agent of the base forms are suppressed by 't-' (see section 4.2.3 for details), and they are expected to take 'a-' resulting in 'a-t-stem' form which can be appropriately called the causative of the passive. There are no such actual forms. However, as indicted earlier, the 'at-stem' forms of Pattern-II and III are considered the causatives of their 't-stem'. Here is what Demoz said:

⁶ See Syeed (1984) for the original concept of affectivity by which he analyses ingestive verbs as falling somewhere in the middle of the cline between transitives and intransitives.

The a(t)-stem has the form aggaddələ (root gdl) which is formed by the gemination of the first radical of the verb ... and the addition of a prefix a- to this stem. Since, as the meaning shows ... the a(t)-stem is obviously derived from the tə-C type [t-1a22ə3-]there seems to be little doubt that the gemination of the first radical is caused by the assimilation of the -t- of the prefix to the consonant of the first radical (thus, *atəgaddələ> *atgaddələ> aggadələ). For convenience sake however, we shall refer to this stem as the a(t)-stem. (p. 56)

This assertion can be substantiated by the examples in 4) that the bound stems which do not derive their 'astem' forms have 't-stem' forms, suggesting that the bound stems are agentives. And once that agent is suppressed by 't-' the introduction of an external agent/causer is possible. The 'a-t-stem' form is derived with the 't-' surfacing as part of the germination of the first radical of the base.

4)	'a-' on	't-stem' bases	
		t-stem	
		t-gaffət'-	

t-stem	a-t-stem	Gloss
t-gaffət'-	a-g-gaffət'-	'collide'
t-kərayy-	a-k-kərayy-	'rent'
t-bəsač'č'-	a-b-bəssač'č'-	'annoy'
t-zəgaji-	a-z-zəgaji-	'be ready'

However a subset of 't-'-derived non-agentive verbs such as those in 5) seem to fail to take 'a-' before 't-'. 'as-' occurs before the basic stem instead of 'a-1-' sequence ('1' being the initial radical of the base).

5) 'as-stem' for 'a-t-stem' on bound bases

t-stem	a-stem	as-stem	Gloss
t-dəssət-	*a-dəssət-	asdəssət-	'be happy'
t-rəkkəb-	*a-rəkkəb-	asrəkkəb-	'receive'
t-k'əmmət'-	*a-k'əmmət'-	ask'əmmət'-	'sit'
t-kəttəl-	*a-kəttəl-	askəttəl-	'follow'

Whether or not the causatives of such verbs are derived from the bound basic stems by 'as-' affixation will be clear after examining 'as-' and the causativization of medio-passives. It is worth noting here that 'a-' also fails to derive the causatives of the bound basic stems. The failure of 'a-' to attach to the bound basic stems may be explained by the potential agentivity of the basic stems. But the reason why 'a-' doesn't attach to 't-'-derived stems has nothing to do with the a-structure of the stems as long as these stems are non-agentive.

Amberber (1996) clearly states that there is no lexical-semantic or structural reason that rules out forms like *t-a-mət't'a, which is passivization of a derived agentive base, but he doesn't explicitly state if the converse derivation *a-t-səbbər- would be theoretically possible. He derives what would be the equivalent structure of the causative of the passive as 'as-t-stem' (although he rejects underlying passive structure of 'as-' causatives) and argues that there is no lexical-semantic or structural constraint but only morphological; what he calls the co-affix constraint (see Amberber 1996: pp. 46 & 90)

4.2.2. 'as-' as a Causative Affix

If 'as-' is a distinct causative affix, as is frequently stated in the literature, what it should be is causative of the agentives. In fact, the causatives of such verbs are always found in 'as-stem' form.

6) 'as-' on agentive bases

Base	Gloss	as-stem	Gloss
hed-	ʻgoʻ	as-hed-	'cause the going of'
k'ət't'a	'punish'	as-k'ət't'a	'cause the punishment of'
lək'k'ək'-	'release'	as-lək'kə'k'-	'cause the release of'
sət't'-	'give'	as-sət't'-	'cause the giving of'

What is observed here is 'as-' performing what 'a-' fails to do with agentives: bringing in a new agent and maintaining its prominence over an existing agent. There are two possible routs that a formation can take to bring a new prominent argument over another equally prominent argument:

- a) A new domain of prominence is defined for the new argument while the old argument retains its status within its domain.
 - b) The old argument somehow loses its status giving way for the new argument to obtain its prominence.

The first situation creates a periphrastic kind of causative, requiring syntactic embedding of the old astructure, whereas the second situation creates a lexically derived causative with an integrated a-structure while requiring some kind of adjustment. In fact, the two situations are observable as two interpretations of 'as-' causatives of transitive agentives in the following example.

8) Aster Kasa-n X as-gəddəl-čč-w Aster Kasa-DO X CAUS-kill-3fs.subj-3ms.obj

The above structure can be interpreted as:

- a) Aster made Kasa kill X
- b) Aster got Kasa killed (by X)

The a) interpretation corresponds to what is commonly referred to as double causative or factitive, and the b) interpretation corresponds to what is known as the indirect causative and the causative of the passive. If as-stem is a simple causative formation it should readily lead to the first interpretation of 8). However, this kind of interpretation is at best controversial in its acceptability in Amharic (see Berhane (1992)). The centrality of the second interpretation of structures like 8) suggests that the formation follows 7b): adjusting the internal a-structure into a passive-like a-structure allowing the integration of the new argument in the derived a-structure. In order to pursue the analysis of 'as-' causatives along this line one has to tackle the following challenges:

- 9) a) That there is no passive morphology to indicate an intermediate process of creating the passive-like a-structure. And, if there was such an intermediate process of passivization, 'a-' affixation would do the causativization.
 - b) If 'as-' is to be a distinct affix it should be defined by a distinct base on which it applies in terms of a-structure. It doesn't seem to be distinctly definable by agentive bases, as it appeared at first, because it can also be found with non-agentive bases as well (see 10a) below).

10) a)	stem	Gloss	as-stem	Gloss		
	a-gəssa	'belch'	as-gəssa	'cause the b	pelching of	
	a-nəkkəs	s- 'limp'	as-nəkkəs-	'cause the l	imping of'	
	a-nəssa	'pick'	as-nəssa	'cause the	oicking/rising o	of'
	a-gəňň-	'find'	as-gəňň-	'cause the f	finding of'	
b)	Base	Gloss	a-stem	Gloss	as-stem	Gloss
	fəlla	'boil intr.'	a-fəlla	'boil tr.'	as-fəlla	'cause the boiling of'
	nət't'ər-	'become pure'	a-nət't'ər-	'purify'	as-nət't'ər-	'cause the purifying of'
	kəbbər-	'gain value'	a-kəbbər-	'value tr.'	as-kəbbər-	'cause the valuing of '
	bərrəd-	'become cold'	a-bərrəd-	'cool'	as-bərrəd-	'cause the cooling of'

Comparing the a-structures of 'a-' and 'as-' derivatives for the same base reveals an important fact about the effects of the two affixes. In addition to the agent/causer introduced by the affix, those as-stem derivatives have a no-more-prominent inner agent (which can be realized as a by-phrase or as affected agent/experiencer) argument which is not found in the base forms. This inner agent could either have been introduced by the affix itself or the affix could have been applied to the a-stem and had the 'a-' deleted. The first possibility suggests a double function for the affix, which will be considered in section 4.2.4, whereas the second one seems to support the analysis of 'as-' as a variant of the causative morpheme on agentives. However, since a lexically inherent agent or one introduced by 'a-' are as prominent as the external agent, such analysis should account for the loss of prominence of the inner agent under 'as-' affixation.

The 'as-' causatives of 't-'-derived bound stems as in 11) bring another challenge to the course of analysis just considered, because now the base is neither agentive in itself nor can it take the 'a-'. Again, one may consider 'as-' as applying to the t-stem, which as we will see in the next section has a 'passive' a-structure. With the 'passive' a-structure licensing a non-prominent agent, the external agent of 'as-' can fit properly into the derived a-structure. But, here comes the challenge given in 9) above: why shouldn't 'a-' take the causativization of such stems. In fact, causatives based on morphological passives actually exist in the 'a-t-stem' sequence, whereas 'as-t-stem' sequences is only apparent⁷.

11)	Base	t-stem	Gloss	as-stem	Gloss
	*k'əmmət'ə	t-k'əmmət'ə	'sit'	as-k'əmmət'ə	'seat/put'
	*kəttələ	t-kəttələ	'follow'	as-kəttələ	'cause to follow'
	*rəkkəbə	t-rəkkəbə	'receive'	as-rəkkəbə	'submit'
	*dəssətə	t-dəssətə	'be pleased'	as-dəssətə	'please'

4.2.3. 't-' as a Medio-Passive Affix

I assume following Grimshaw (1990), that passivization suppresses the external argument of the base. This suppression leaves the argument position open. Suppressed positions of passives can license a special kind of adjuncts which are called argument adjuncts. Such adjunct-like arguments are licensed by astructure, and unlike arguments they occur optionally.

Amharic derives 'canonical' passives from agentive transitive bases by affixing 't-'. As Grimshaw (1992) argues, the fact that the agent is suppressed, while its status is maintained, is evident in its optional realization as a by-phrase in the syntax. Unergatives do not seem to lend themselves to this kind of passivization, nevertheless, there are cases where passive-like forms are derived out of such verbs. When the only agent argument of an unergative is suppressed the resulting a-structure is that of 'impersonal passive' in which the agent is implicit as in zəffənə 'he sang' > t-zəffənə 'it was sang'.

It seems to be problematic to determine whether the 't-' derivatives of bound stems are 'passives' or not. As we already argued in determining the function of 'a-', whether a base is actual/free or potential/bound, if it takes 'a-' it is non-agentive. We can follow a similar line of argument for 't-': if a base can take 't-', then it is agentive. This suggests a cyclic application of the two affixes feeding one another to the extent that an intermediate non-actual affix-stem form should be assumed for the next affix to derive the actual form (see Table 2). The application of 'a-' after 't-' seem to be evident at least with 'at-stem' forms as shown earlier. Surface 't-a-stem' sequence has not been attested, however, the surface 't-

The /t/ of the so-called 'asta-stem' verbs such as astawawwak'- 'introduce', astadaddar- 'administer', astammam- 'nurse', astaggas- 'relief', etc. cannot be taken as the passive marker. Because it doesn't behave the way the passive marker does in similar contexts. For example, it doesn't 'assimilate' to the initial radical of the base form in the imperfective aspect as in: ta-gaddal- > y-ggaddal-, ta-gaddal- > y-ggadal, ta-wawwak'- > *y-wawawk'-, ta-daddar- > *y-daddar-, etc., rather the /t/ surfaces in geminate: ta-wawwak'- > y-tta-wawwak'-, ta-daddar- > y-tta-daddar- etc. The /t/ of such verbs which geminates in the imperfective aspect can be assumed to be a root consonant of the verb. Whereas, the other part of the geminate can be analysed as the passive marker /t-/ which assimilated to the root consonant /t/ to create the gemination.

stem' form of non-agentive bases can be analyzed as the passive of 'a-stem' bases with the deletion of 'a-'. In fact, there is no other way of explaining a passive derived out of an intransitive verb such as 'fəlla'.

12) 't-' on 'a-stem' bases

Base	a-stem	t-stem	Gloss
fəlla	a-fəlla	t-fəlla	'boil'
*nəssa	a-nəssa	t-nəssa	'pick'
*gəňň	a-gəňň-	t-gəňň-	'find'
*dərrəg-	a-dərrəg-	t-dərrəg-	'do'

The passive prefix 't-' also derives reflexives, mainly from Pattern-I and Pattern-II stems. For that reason the prefix is sometimes called 'passive-reflexive'. The 't-' derivatives from Pattern-II and Pattern-III stems are referred to as reciprocatives. They are mostly very similar in meaning and hence can be used interchangeably. For example, təgaddəl-u and təgədaddəl-u can be used to mean 'they killed each other' except that the latter seem to have more participants because of the often 'iterative' function of the base. Reflexives and reciprocatives do not have external arguments, because in these forms only the undergoer role of the participants is emphasized (Spencer, 1991). The 't-' in reflexives and reciprocatives suppresses the agent role of the participants.

What is observed throughout the 't-' derivations is the suppression of the external argument. Therefore, it is methodologically appropriate to unite all instances of 't-' affixation as long as they bring about essentially the same effect in the derived forms. In this respect, morphological evidence from Amharic reinforces Spencer's generalization to consider:

...the medio-passive voice ... as the set of forms in which the subject is acted upon in some way, whether by himself (reflexive.), by the object he himself is acting on (reciprocal), some possibly unspecified agent (passive), or in a more indirect way by benefiting specifically from his own action (middle) (Spencer, 1991:248).

The medio-passive voice in Amharic is signaled by 't-' affixation.

4.2.4. Causativization of Medio-Passives

We have noted that agentive verbs cannot undergo 'a-' affixation because there will be more external arguments than the a-structure can accommodate. Assuming that causativization is a lexical process that creates an integrated a-structure, the idea that 'as-stem' derivations are causatives of transitives or double causatives is not defendable since the internal agent can not maintain its argument status in the derivation. This means that the agentive base undergoes simultaneous suppression of the inner agent under 'as-stem' formation. In other words, passivization is contained within causativization in 'as-stem' formation. This phenomenon does not seem to be unique to Amharic. Grahame-Bailey's generalization on Hindi indicates a similar situation:

[t]here is no causal of the active voice of a transitive verb. The so-called causal is the causal of its passive voice. It means 'to cause the action of the transitive verb to be performed, not to make someone perform, (1950:58)

Also the characterization of 'as-stem' forms as causative of the passive conforms to Comrie's proposal of a passive analysis to the causativization of transitives:

Another approach to the use of agentive phrases expressing the embedded subject where there is also an indirect object would be to say that this agentive phrase is the result of passivization in the embedded sentence before causativization takes place. Evidence in favour of this is to be found in those languages that allow an agentive phrase even where we have the causative of a transitive verb that has no indirect object... (1976:271).

Double function of passivization and causativization distinguishes 'as-' from 'a-' the function of which is simple causativization. Given the theoretical possibility that a medio-passive stem can be the base for 'a-' affixation, we can associate the 's-' in 'as-' with the passive function to reserve the causative function for 'a-'. Of course, 's-' never surfaces independently of 'as-' as a medio-passive affix. Nevertheless, it is possible to consider it as a morphophonological variant of the same morpheme. Recall the brief discussion in section 4.2.1 that the 't' of so-called 'at-stem' causatives of Pattern-II and Pattern-III can be analyzed as the affix 't-' realized as part of the geminate initial radical⁸. Similarly we can generalize that the same morpheme is realized as 's-' in derivational Pattern-I after the causative/ agentive affix 'a-'. The complementary distribution of 'as-' and 'at-' along the derivational Patterns (see Table 1) reinforces the above generalization. Once causativization and passivization are analyzed as distinct processes, cyclic application and morphologically conditioned changes of the respective morphemes can explain the actual formation.

Affix	Root 1-2-3	Pattern-I -1ə22ə3-	Pattern-II -1a22ə3-	Pattern-III -1ə2a22ə3-	Gloss
	g-d-l	gəddəl-	*gaddəl-	gədaddəl-	'kill'
'a-'					
't-'		t-gəddəl-	t-gaddəl-	t-gədaddəl-	
'a-'		a-t-gəddəl-	a-t-gaddəl-	a-t-gədaddəl-	
	w-r-d	wərrəd-	*warrəd-	wərarrəd-	'descend'
'a-'		a-wərrəd-	*a-warrəd-	a-wərarrəd-	
't-'		t-a-wərrəd-	t-a-warrəd-	t-a-wərarrəd-	
'a-'		a-t-a-wərrəd-	a-t-awarrəd-	a-t-a-wərarrəd-	
	f-r-s	fərrəs-	*farrəs-	fərarrəs-	'crumble'
ʻa'		a-fərrəs-	*a-farrəs-	a-fərarrəs-	
't-'		*t-a-fərrəs-	*t-a-farrəs-	*t-a-fərarrəs-	
'a-'		a-t-a-fərrəs-	a-t-a-farrəs-	a-t-a-fərarrəs-	

Table 2: cyclic application of 'a-' and 't-'

Whereas the split analysis theoretically explains the source of passive in the causativization of agentive bases in Amharic, empirically there seem to be an ongoing formation of 'as-' as a composite morpheme⁹ by merging the two functions of the separate morphemes. The composite morpheme may be understood to have inherited a weakened function of the passivization: only licensing a 'passive agent' instead of suppressing one (recall our assumption in section 4.2.3 that suppression of argument entails licensing of an argument adjunct). In this analysis the application of 'as-' to apparently non-agentive bases as in 12) can be explained without resort to the intermediate affixation of 'a-'. Also the case of marginally acceptable periphrastic interpretation of 'as-' derivatives of lexical agentives such as in 8a) may be considered as a tendency of defining separate domains of prominence for the inner agent and the causer agent.

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⁸ The medio-passive morpheme is realized as part of the germinate initial radical also in simple stems under conjugational patterns of Imperfective and Jussive. See Hudson (1978) for a slightly different analysis of this morphological condition of the variation of what he calls the passive-reflexive morpheme.

⁹ Yabe (2003, 2007) analyzes 'as-' as a composite morpheme historically made up of the transitive affix 'a-' and the Cushitic causative affix 's-'. The speculation that the Cushitic causative suffix '-s' may have been borrowed into a pre-Ethio-Semitic language to insulate the morphological incompatibility of the causative and the reflexive-passive morphemes later to become a part of an Amharic prefix is a bit farfetched.

5. Conclusion

The analysis has shown that 'a-' as a causative affix is restricted to non-agentive stems. It has also been shown that medio-passives are non-agentives, because the agents of their basic forms are suppressed. It follows from the above facts that medio-passives are logical targets of causativization by 'a-'. And we re-analyzed the so-called 'at-stem' derivation of Pattern-II and Pattern-III verbs as 'a-stem' forms of medio-passive bases with a morphophonological assimilation of the medio-passive prefix 't-' to the initial radical of the basic stems as a result of causativization after passivization. Whereas, in verbs of Pattern-II, the 'as-' derivatives were taken as parallels of the 'at-' derivatives of Pattern-III and Pattern-III. Based on those facts it has been generalized that the 's' in 'as-' is the same as part of the initial geminate consonant of the 'at-stem' forms: morphologically conditioned variants of the medio-passive morpheme 't-'. This analysis leaves 'a-' as the underlying causative morpheme in Amharic for basic non-agentives and for the medio-passives alike.

Prominence theory of argument structure predicts that "[i]n causativization... the addition of a new external argument is possible only if the former external argument is suppressed or two different domains of prominence are maintained" (Grimshaw, 1990:126). Amharic provides concrete morphological evidence for the first option of suppressing a former external argument by an intermediary process of medio-passivization.

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