In Lutz Edzard (ed.), *The Morpho-syntactic and lexical Encoding of Tense and Aspect in Semitic*. Wiesbaden: Harrassowitz, 159–239, 2016

Aspect and Tense in Ethiosemitic languages

Ronny Meyer (Addis Ababa University)

1 INTRODUCTION

The grammatical categories aspect and tense are concerned with the temporal arrangement of verbal situations (Timberlake 2007:315). Even if they have been topic of numerous cross-linguistic and language-specific studies for a long time, their semantic relatedness results in much confusion and contradiction until today (cf. Bybee & Dahl 1989:54). Semitic languages are no exception;[1] likewise studies on aspect and tense in Ethiosemitic (ES) offer contradictory conclusions. Rundgren (1959) and Girma (2003:95–128) argue that ES languages are primarily aspect-based, whereas Hetzron (1977:83–86) considers a part of them to be tense-based. Even for the same language, there is often no consensus. Poláček (1972) and Dahl (1985), for instance, consider Amharic to be a tense language, while Girma & Meyer (2001) conclude that it primarily marks aspect. Similarly, Rundgren (1959:67–68) proposes an aspect system for Gəʿəz, while Weninger (2001) advocates a verb system based on relative tenses. Moreover, many grammatical descriptions of ES languages do not pay much attention to the description and analysis of aspect and tense. Many a time, only inflectional paradigms (with translation equivalents into English or another language) are provided whose designation merging functional and formal features into categories such as “past imperfect”, “relative perfect”, “compound imperfect”, etc., which tell not much about their actual meaning, or their relationship to each other.

Therefore, the present paper intends to provide a brief but comprehensive overview about aspect and tense in ES, which is informed by well-established typological findings. Accordingly, it will be argued that Modern ES languages are primarily aspect-based, but also have a secondary binary tense system distinguishing between past and non-past time reference. This assumption mainly results from the analysis of obligatory grammatical markers of aspect and tense on verbs in affirmative main clauses, which contain the greatest range of formally and functionally diverse constructions, through a combination of structural, typological, and historical-comparative approaches. Temporal notions in ES can be marked by templates, affixes, and periphrastic constructions with auxiliary verbs and copulas – or by combinations of them. A temporal marker is identified by associating a morphosyntactic construction with the specific temporal notion(s) it conveys, and by contrasting it with other temporal markers regarding their morphosyntactic

[1] Cf., e.g. Binnick (1991:434–451) for a summary of studies on Arabic and Hebrew.

distribution and semantic co-occurrence constraints. Each marker is assigned a basic or most typical function by considering its possible diachronic origin and further development, contact-induced areal features, and general typological concepts.

The research results are presented as follows: Section 2 provides background information about the classification and distribution of ES languages and their sociolinguistic settings, and lists the main linguistic sources used in this paper. Section 3 conceptualizes the grammatical categories tense and aspect from a typological perspective, and discusses the main points to distinguish between them. The basic markers of aspect and tense in ES are described in Section 4, which has a strong historical-comparative bias, whereas the subsequent two sections are mainly concerned with their function and use. That means section 5 provides the main typological evidence for the primacy of aspect over tense, while Section 6 specifically deals with tense marking on verbal categories. Finally, Section **Error! Reference source not found.** summarizes the main arguments.

2 THE LANGUAGES

Ethiosemitic represents the African branch of Semitic, and encompasses more than a dozen languages that are spoken at the Horn of Africa, particularly in Ethiopia and Eritrea. These languages descend form a common ancestor belonging to West Semitic – either as one of its immediate offspring, or as a group in South Semitic as one of its sub-branches (cf. Huehnergard & Rubin 2011:260–267; Weninger 2011a).[2]

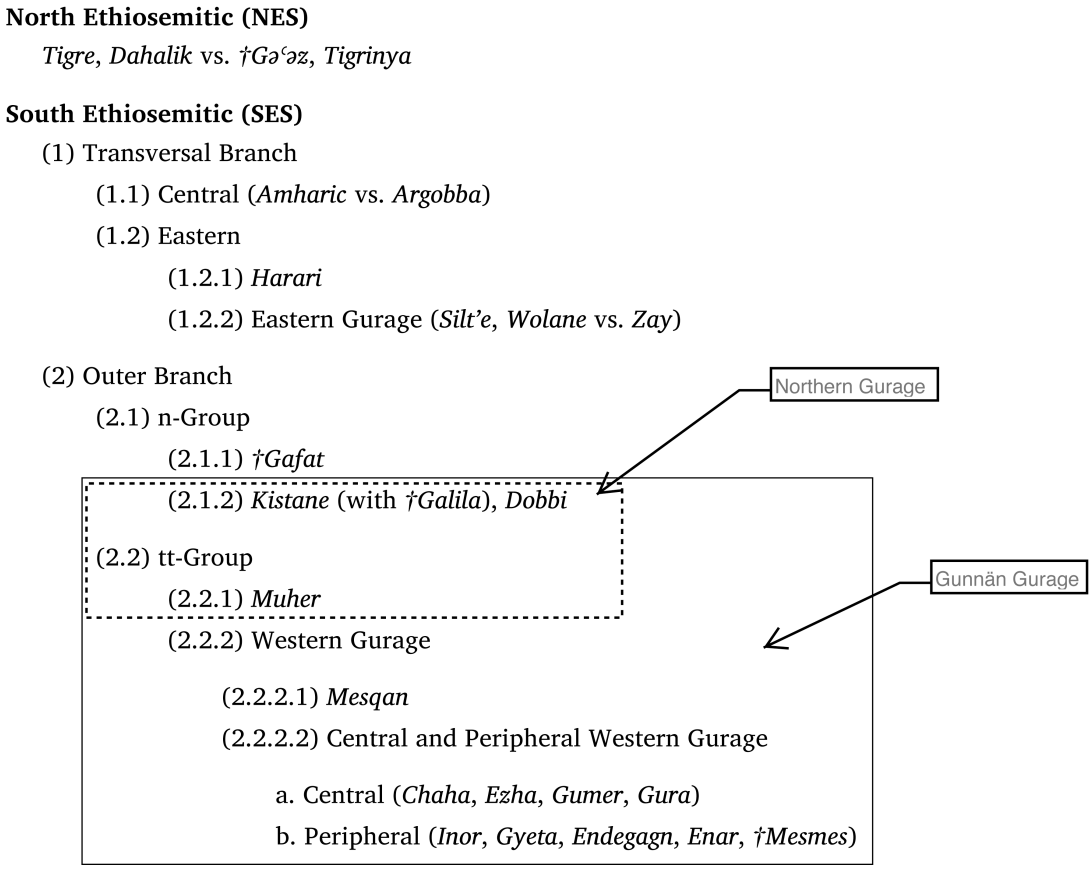
The most comprehensive internal classification of ES until today is Hetzron (1972:119), with minor modifications in Hetzron (1977:15–24).[3] Accordingly, ES languages are divided into two major groups: North and South, while the latter is subdivided into the two branches Transversal vs. Outer South ES, as shown in Figure 1. The Outer South ES languages, except Gafat, are combined into a single typological group called *Gunnän Gurage* due to a number of common linguistic traits (cf. Hetzron 1977:3). Within Gunnän Gurage, Kistane, Dobbi and Muher form the *Northern Gurage* subgroup characterized by a marker for affirmative declarative main clauses, which is not found in other languages (Hetzron 1977:23–24). Central and Peripheral Western Gurage consists of two dialect clusters. Despite their common

[2] The linguistic evidence for such an anchestor language is rather scarce (cf. Faber 1997:12).

[3] See Hudson (1977; 2000) for a summary of former classifications, and Goldenberg (1977) for a general assessment of Hetzron (1972). Despite the broad acceptance of Hetzron's (1972) classification, arguments for a critical revision are steadily growing: Voigt (2009a) argues against the proposed North vs. South ES division; Faber (1997:12), and also Bulakh & Kogan (2010) emphasize on the lack of linguistic evidence for NES as a genealogical group. Furthermore, Bulakh & Kogan (2010) underline peculiarties in the Tigre verb morphology, which could set it apart from all other ES languages. Hudson's (2013) proposal for a new classification of ES based on lexicostatistic comparisons still awaits a critical evaluation.

name and geographic adjacency, Gunnän Gurage and Eastern Gurage are genetically not related (cf. Meyer 2011a:1221–1224 for further details).

Figure 1 Classification of Ethiosemitic



(Adapted from Hetzron 1977:15)

The North ES languages, as well as Amharic and Argobba are spoken in adjacent areas in Eritrea and Northern Ethiopia, while Gunnän Gurage and the Eastern Gurage languages Silt'e and Wolane form a compact area in central Ethiopia. Zay and Harari are outliers spoken in central and eastern parts of Ethiopia. Various contacts between speakers of ES and neighboring Cushitic and Omotic languages resulted in widespread bi- and multilingualism, and yielded a linguistic area, in which languages of diverse genetic origin share various grammatical traits (cf. Crass & Meyer 2008).

Sociolinguistically, two ES languages are of special interest. Gəʿəz has the oldest literary tradition going back to the 3rd century AD. Since then, it serves as liturgical language in the Ethiopian Orthodox Church, although it ceased to be spoken as a native language at some point after the 8th century. Nevertheless, it remained the most prolific literary language in Ethiopia and Eritrea until the end of the 18th

century. Then Amharic became the favored Ethiopian language for modern education and in the newly established print media. As it served as lingua franca at the Ethiopian court since the 13th century, Amharic was known – at least as second language – to the elites who spread it all over Ethiopia and Eritrea for many centuries. Today, Amharic is the official working language of the Ethiopian government and serves as national lingua franca far beyond the area in which it is spoken as mother tongue (cf. Weninger 2011b:1124–1125; Meyer 2011b).

Figure 2: Geographical distribution of ES languages

(Adapted from Weninger 2011a:1123)

The linguistic description of individual ES languages varies remarkably. A number of grammars and dictionaries exist for Gəʿəz and Amharic, while not more than basic information is at disposal for most Gunnän Gurage languages. Moreover, Gəʿəz, for which only written data are available, is the sole representative for an older stage of ES, but it is not spoken as a native language anymore. The remaining living ES

languages, which represent Modern ES, are used in face-to-face communication, but many of them are not yet reduced to writing. Consequently, their linguistic description is mainly based on spoken texts and elicitation from relatively recent times.

The present study of aspect and tense in ES essentially relies on published sources that contain a comprehensive description of formal and functional aspects of the verb inflection.[4] Accordingly, only fourteen languages from Figure 1 were selected, which with their main references are as follows: Gəʿəz (Tropper 2002; Weninger 2001), Tigre (Raz 1983), Tigrinya (Kogan 1997; Leslau 1941; Voigt 1977), Amharic (Leslau 1995 and own data), Argobba (Wetter 2010), Silt'e (Gutt 1997), Wolane (Meyer 2006), Zay (Meyer 2005), Harari (Beniam 2013), Kistane (Goldenberg 1968; Leslau 1968; Bedilu 2010), Muher (Leslau 1981 and own data), Mesqan (Meseret 2012), Chaha (Leslau 1983), and Inor (Berhanu & Hetzron 2000; Leslau 1983).[5] Chaha and Inor are chosen as representatives for the various dialects within Central and Peripheral Western Gurage, respectively.

3 THEORETICAL FRAMEWORK

Utterances consist of clauses denoting specific situations whose basic semantic frame is encoded by verbs. Aspect and tense are two distinct grammatical categories to express temporal facets of such situations (cf. Lindstedt 2001:768; but also Bybee & Dahl 1989; Bybee, Perkins & Pagliuca 1994; among others). Aspect conveys information about the temporal shape of a situation, while tense locates it on a time axis (Comrie 1976:1–5; 1985:6–9).[6]

---

[4] Data on Muher and Amharic were gathered during several field stays since 1998 on projects supported by the SFB 295 *Cultural and Linguistics Contacts* (Mainz University), and the Norhed Project *Linguistic Capacity Building in Ethiopia*. In particular, I thank Abubakr Sherifo, Sitti Gragn Nasir, and Seid Ahmed Ali for their assistance and help.

[5] In order to enhance the comparability of the linguistic data from various ES languages, they are adapted to an unified broad phonetic transcription (or transliteration) according to the IPA conventions with the following deviations: The original transcriptions of the central vowels was retained only in Tigre (for which see Raz 1997:447). In all other languages, they are represented by the symbols *ä* and *ə*, which are equivalent to the IPA vowels *ɜ* and *ɘ*, respectively. With the exception of *ä* > *a* in the environment of a glottal stop or postvelar frictatives, allophones of vowels are not transcribed. The symbol *ś* – presently uttered [s] – stands for the consonant value of the Gəʿəz grapheme *ሠ*, which diachronically represents another coronal fricative (cf. Tropper 2002:17–20). Long vowels are marked by a macron, but only if vowel length is phonemic. Geminated consonants are marked by reduplication. When the phonemic and phonetic representations differ substantially, both are given for a better understanding of the data.

[6] This specific definition of *tense* has to be distinguished from its use as a cover term for any kind of inflectional verbal paradigm, as, e.g. in Gensler (2011:296) or Goldenberg (2013:215–222).

The temporal shape of a situation is encoded at different levels (cf. Filip 2012; Sasse 2006; 1991; Binnick 2001; Lindstedt 2001; Bybee 1985:100). The verb semantics denotes the *lexical aspect*, i.e. a concrete situation type, like state, action, event, or process. A specific phase of such a situation, like its beginning, ending, duration, iteration, etc., can be marked by periphrastic constructions for *phasal aspect* (cf. Bhat 1999:49–52; Timberlake 2007:303). Lexical and phasal aspects, which are also called *aktionsarten*, are found in any language and have to be distinguished from *viewpoint aspect*. Languages with viewpoint aspect[7] have two contrasting forms for each verb, perfective vs. imperfective, denoting opposite views on a verbal situation. The perfective aspect emphasizes the inherent transformation phase of a situation (i.e. its boundary), which is the endpoint with dynamic verbs but the starting point with (inchoative) stative verbs, whereas all other phases denoted by the verb semantics are suppressed (Sasse 1991:11). Consequently, perfective verbs present a situation as temporally bounded, which often, but not always, implies that it was completed prior to the moment of speech (Bybee, Perkins & Pagliuca 1994:93; Dahl 1985:16). The imperfective aspect, in contrast, foregrounds the phase between the implicit starting and ending points of a situation so as if it were not bounded (Sasse 1991:11). This is commonly interpreted as existing event at the moment of speech (Dahl 1985:16), but can also imply an iterative, durative, continuous, habitual situation (Timberlake 2007:294; Bybee 1985:143). Certain sub-readings of the imperfective aspect may be expressed through separate constructions.

Tense, in contrast to aspect, is a deictic category with the moment of speech as reference point from which three subdivisions can logically be derived: past (prior to the moment of speech), present (simultaneous with the moment of speech), and future (subsequent to the moment of speech) (cf. Bybee 1985:155). Often the tripartite distinction is reduced to a binary opposition between past vs. non-past (i.e. present and future), or present vs. non-present (i.e. past and future) – or, less common, extended to more than three tense parameter (Comrie 1985:49–50, 87–91; Timberlake 2007:305). In the typological literature, e.g. Comrie (1985:36–82), absolute tense, which is anchored at the moment of speech, is distinguished from relative tense whose deictic center depends on another verb, time adverbs, the moment of speech, etc. Relative tense expresses temporal relations like anteriority, simultaneity or posteriority, and is typically found with non-finite subordinate verbs. However, in a few languages, in particular Classical Arabic, Biblical Hebrew and Gəʿəz, even main verbs are said to inflect in relative tenses (cf. Comrie 1985:62–64; Binnick 1991:434–451; Weninger 2001). Verbs in a relative tense language occur in a binary opposition, which can be analyzed either as perfective vs. imperfective aspect, or anterior vs. simultaneous/posterior relative tense. As perfective and imperfective verbs also express relations of anteriority, simultaneity or posteriority (cf. Sasse 1991:17–18), a relative tense system with the moment of speech as

[7] In the following, I use the plain term *aspect* as shorthand for *viewpoint aspect*, i.e. it does not include *lexical* or *phasal aspect*.

optional deictic center is basically identical to a tenseless viewpoint aspect system (Binnick 2001:557). However, there is a tendency to analyze such a kind of binary opposition as aspect based (Timberlake 2007:298; Lindstedt 2001:772; Sasse 1991:23).[8] Accordingly, the main empirical cross-linguistic studies on aspect and tense, like Bybee (1985); Dahl (1985); Bybee, Perkins & Pagliuca (1994), do not mention relative tense as grammatical category at all. That means relative tense seems not to be a valid cross-linguistic category.

In addition to tense and aspect, languages often mark the perfect as an additional grammatical category. According to Sasse (1991:27), the perfect is an aspectual category, which simultaneously emphasizes the transformational phase of a situation and the subsequent state resulting from the transformation.[9] Such a simple perfect may induce a present reading, or it may combine with overt tense markers. In a present perfect, i.e. a perfect in combination with a present tense marker, the subsequent state is still relevant at the moment of speech, whereas it is temporally separated from it in the past perfect (Timberlake 2007:290). Furthermore, the perfect may have various functional sub-classes, such as the resultative with action verbs, or the experiential perfect for reporting that a situation occurred at least once (Timberlake 2007:291).

Aspect and tense are frequently marked by inflectional morphology on verbs (Dahl 1985:14). According to Bybee (1985:32, 155–156), viewpoint aspect is found in almost half of the languages in the world as obligatory inflectional category, while obligatory tense-marking is less frequent. Although future tense is also an inflectional category in every second language, only one third of the world's languages marks the opposition past vs. present through inflection (Bybee 1985:155–156). Most commonly, present tense is zero marked, probably as result of an overt past marker (Bybee, Perkins & Pagliuca 1994:92). Aspect morphemes are closer to the verb stem than tense morphemes, and may trigger stem-internal changes (Bybee 1985:34–36). The imperfective morpheme often develops from periphrastic constructions for the continuous/progressive, or from the frequentative (Sasse 1991:29; Timberlake 2007:299). Morphemes for the perfective aspect may originate in constructions denoting stative or resultative situations (Sasse 1991:28, 32).

Despite the formal and semantic overlap in aspect and tense marking, Bybee, Perkins & Pagliuca (1994:93–95) identify a number of typological constraints to differentiate between the two. Only morphemes for the perfective aspect, but not for past tense, interact with the lexical aspect of a verb. This can clearly be observed with stative

---

[8] Contrary to Weninger (2001), this view will also be adopted for the analysis of Gəʿəz.

[9] See also Timberlake (2007:289–291) for a similar view. In contrast, Bybee (1985:159–161), among others, believes that the perfect connects two consecutive situations by indicating that the anterior situation is still of some relevance for the subsequent situation, but without affecting their internal temporal constituency. Consequently, she considers the perfect to be a tense category.

verbs, which have a present reading in the perfective aspect, but refer to a past situation when marked for past tense. Perfective verbs might refer to future situation, but verbs marked for past tense never do so outside (irreal) conditional clauses. The perfective always occurs in a binary opposition to an imperfective, whereas the past can stand alone, or combine with an imperfective to form a past imperfective. Consequently, past tense is never marked by a zero morpheme (see also Dahl 1985:16).

Most frequently, the aspectual opposition perfective vs. imperfective co-occurs with the tense opposition past vs. non-past in a tripartite system, in which the perfective is not marked for tense, but the imperfective combines with tense markers for past and non-past reference (Dahl 1985:17). The Russian-type aspect system, in which the two viewpoint aspects co-occur with past and non-past markers, is rather exceptional – not only due to tense marking on the perfective aspect but also because viewpoint aspect is marked through derivational morphemes (the so-called bounders) (Dahl 1985:17–18; Timberlake 2007:295–296).

4 FORMAL MARKER FOR ASPECT AND TENSE IN ES

4.1 General overview about verb inflection in Semitic and Ethiosemitic

A characteristic feature of all Semitic languages is their non-concatenative verb morphology. A consonantal root – prototypically consisting of three consonants – encodes a general lexical meaning and interdigitates with a template, i.e. a fixed vocalic prosody and gemination pattern, into a base with one or several grammatical function(s) (cf. especially Shimron 2003:4–10; but also Gensler 2011:283–286; Goldenberg 2013:116–117; among others).[10] According to Genlser (2011:283), verbs in Semitic languages are predominantly derived from triliteral roots; quadriliteral roots are less frequent, and roots with more than four or less then three consonants are rare. However, it is still debated whether triliteral roots are original or developed from biliteral roots (cf. Edzard 2012:31–32 for a summary). Many roots in ES only consist of two consonants due to a diachronic process in which the so-called "weak consonants" – the glottal stop *ʔ*, the glides *w* or *j*, or the various post-palatal fricatives *x*, *ħ*, *ʕ*, *h* – changed into a vocalic radical or got totally lost (cf. Hetzron 1977:74–75). However, the grammatical templates for the majority of biliteral roots can be regularly derived from the templates used with triliteral roots. Quadriliteral roots also exist in ES, but are relatively rare as compared to triliteral roots.[11]

Semitic verbs have three core conjugations (cf., e.g. Lipiński 1997:331). These conjugations are referred to by two distinct terms, which emphasize either their

[10] The morpheme status of the root is not entirely accepted (cf. Edzard 2012:29–30 for a summary; and Faust & Hever 2010 for an assessment of the various arguments).

[11] Cf. Gensler (1997) for their inflectional patterns.

function or form. Functionally, they are often called by the terms perfective/past, imperfective/non-past, and imperative/jussive. Formally, however, only two designations prevail, namely suffix conjugation (for the perfective/past) vs. prefix conjugation (for the rest). Sometimes, the latter term is preceded by the adjectives "short" or "long" to distinguish between imperative/jussive and imperfective/non-past, respectively. Morphologically, these three conjugations are characterized by specific templates and an obligatory subject index, as shown in (1) with data from Wolane:

(1) *Inflection of a triliteral Type A verb in the simplex stem* WOLANE

ROOT	√$s_1b_2r_3$ 'break'			
CATEGORY	PERFECTIVE	IMPERFECTIVE	JUSSIVE	
TEMPLATE	$C_1äC_2äC_3$	$C_1äC_2C_3$	$C_1C_2äC_3$	SIMPLEX
BASE	**säbär*	**säbr*	**sbär*	
SUBJECT (3SM)	*säbär-ä*	*ˀjə-säbər*	*jä-sbär*	
	'he broke'	'he breaks'	'he should break'	

The consonants of the root √$s_1b_2r_3$ 'break' in (1) interdigitate with the corresponding C-position in the three templates resulting in the perfective, imperfective and jussive bases, which together form the simplex stem. That means a simplex stem is not a single verb form, but consists of a language-specific bundle of allomorphs – the bases as specific instances of a template from which they are derived. The templates, in turn, are associated with a distinct grammatical function (or a set of functions) in verb inflection found with most verbs, i.e. the templates are grammatical morphemes.

The three bases in (1) are still bound morphemes that must be accompanied by a subject affix. However, neither the form of a certain subject affix, nor its position relative to a base is uniform, but depends on the conjugation.[12] As shown in (1), the suffix *-ä* refers to a 3SM subject with the perfective base, but with the imperfective and jussive bases it is the prefix *j(ä)-*. When combined with the subject affixes, the perfective and jussive bases in (1) become free (i.e. independent) verbs, whereas the imperfective base still remains a bound verb in Wolane. Whether the combination of a base and a subject affix results in a free verb or not is a language-specific parameter. In Muher, for instance, even the perfective base with a subject affix is still a bound verb, as shown in (2). ES languages tend to formally distinguish between subordinate and main-clause verbs by attaching additional morphemes to

[12] Such a variable position for subject referencing on a verb is uncommon cross-linguistically. In Semitic, it results from an early innovation in the verbal system, for which see Section 4.3.1.

the latter (cf. Appleyard 2002), which include temporal auxiliaries (see Section 6), or main clause marker (cf. Meyer 2014).

Certain ES languages have additional templates for specific sub-paradigms of the core conjugation. Muher, for instance, has different templates for the affirmative and negative perfective, and transitive and intransitive verbs in the jussive:[13]

(2) *Inflection of a triliteral Type A verb in the simplex stem* MUHER

ROOT	√$s_1b_2r_3$ 'break'				
CATEGORY	PERFECTIVE		IMPERFECTIVE	JUSSIVE	
SUB-CATEGORY	AFFIRMATIVE	NEGATIVE		TRANSITIVE	INTRANS.
TEMPLATE	C_1äCC_2äC_3	C_1äC_2äC_3	C_1äC_2C_3	$C_1C_2C_3$	C_1C_2äC_3
BASE	**säbbär*	**säbär*	**säbr*	**sbr*	———
SUBJECT (3SM)	*˚säbbär-ä*	*˚säbär-ä*	*˚jə-säbər*	*jä-sbər*	———
	'he broke'		'he breaks'	'he should break'	

The two jussive templates in (2) are lexically determined; they do not change the transitivity of a given verb. Thus, the transitive root √$s_1b_2r_3$ 'break' in (2) only inflects with the transitive template.

Beside the simplex stem, all Semitic languages have derived stems, also known as *binyanim* (Gensler 2011:284). Among the common Semitic binyanim, the so-called doubled and lengthened stems fully lexicalized in ES and merged with the original basic stem. Consequently, the simplex stem in ES is not uniform, but consists of three inflectional subclasses, which are labeled as (Verb) Type A, B, C (cf. Lipiński 1997:334; Gragg & Hoberman 2012:184–185).[14] Type A, which corresponds to the basic stem in Semitic, consists of the plain root, whereas the other two types contain additional augments (Hetzron 1972:10; 1977:70–71). Type B is characterized through the gemination of C_2, the front vowel *e*∼*i* following C_1, or a combination of them, while the peculiar feature of Type C is the vowel *a*∼*ā* between C_1 and C_2. Among the three verb types, Type A is the most frequent (cf. Hudson 2005:203; Weninger 2011c:155).

Although the templates of the three core conjugations vary depending on the verb type, the derived stem, and the root elements, the combination of a template with a subject affix often suffices to distinguish between perfective, imperfective and jussive/imperative.

---

[13] For the notion of transitivity, see Section 4.3.2.3.

[14] Hudson (1991:688; 2005:197; among others) rejects the relation between the ES verb types and the Semitic binyanim, and argues that Type A and B originate from an old transitivity opposition.

4.2 Subject indexes

Subject indexing is an obligatory part of verb inflection in ES.[15] Formally, it encompasses two affix sets (in complementary distribution), which specify the person (1st, 2nd, 3rd), the number (singular/general number vs. plural), and the gender (masculine/common/inanimate vs. feminine) of the subject. Gender is only marked with 2nd and 3rd person animate subjects.

The subject index for the perfective base only consists of suffixes, which are portmanteau morphemes marking person, number and gender. The other subject index, which combines with imperfective and jussive bases, encompasses pre- and suffixes. Most prefixes refer to the person, while the suffixes mark gender and number.[16] Table 1 is an example for the subject indexes with data from Gəʿəz:

Table 1 Subject indexes in Gəʿəz

	CIRCUMFIX SUBJECT INDEX		**SUFFIX SUBJECT INDEX**	
	SINGULAR	PLURAL	SINGULAR	PLURAL
3M	*j-*	*j-…-u*	*-ä*	*-u*
3F	*t-*	*j-…-a*	*-ät*	*-a*
2M	*t-*	*t-…-u*	*-kä*	*-kəmu*
2F	*t-…-i*	*t-…-a*	*-ki*	*-kən*
1	*ʔə-*	*n-*	*-ku*	*-nä*

(Tropper 2002:88–90)

The subject indexes in the other ES language display a number of peculiarities when compared with Gəʿəz. Transversal South ES is characterized by the loss of the gender contrast in the plural, i.e. subjects of either gender are invariably marked by the masculine plural index. Tigre exchanges the prefix *j-* in the 3rd person by *l-* (cf. Bulakh & Kogan 2010:279, fn. 12). The marker of the 1P is the prefix *n-* in North ES, Amharic, Argobba, Harari and Kistane, but the circumfix *j-…-nä* in Eastern Gurage,[17] or *n-…-nä* in Mesqan, Muher, Chaha and Inor. In South ES, the prefix of the 1S subject index has a number of morphosyntactically-conditioned allomorphs, as shown in Table 2:

[15] See Haspelmath (2013) for the term subject indexing vis-à-vis agreement and bound pronouns.

[16] The subject indexes are topic of various studies; cf., e.g. Lipiński (1997:359–377); Weninger (2011c:159–162); Gragg & Hoberman (2012:176–179); Goldenberg (2013:84–87) for common Semitic, or Hetzron (1977:78–83); Meyer (2011a:1236–1238; 2014:231–238) specifically for ES.

[17] The 1P prefix *j-* is restricted to affirmative imperfective verbs in main clauses; elsewhere it is substituted by *l-* elsewhere in Eastern Gurage.

Table 2 Prefix of the 1s circumfix subject index in various clause types

	IMPERFECTIVE IN AFFIRMATIVE MAIN CLAUSES	AFFIRMATIVE JUSSIVE	IMPERFECTIVE IN SUBORDINATION
Gəʿəz, Tigre, Tigrinya		*ʔə-*	
Amharic	*ə-*	*l-*	*ə-*
Argobba	*ø-*	*l-*	*ll-*
Zay, Wolane, Silt'e[18]	*j-*	*lä-*	*l-*
Harari	*i-*	*nä-*	*n-*
Kistane	*ä-*	*nä-*	*ä-/n-*
Mesqan, Muher, Chaha, Inor	*ä-*	*n-*	

The variation with the 1s prefix in South ES clearly distinguishes between imperfective and jussive verbs in main clauses. In subordination, the 1s prefix of jussive verbs also occurs with subordinate imperfective verbs in South ES except Amharic. The 1s subject index in Eastern Gurage, Harari and Kistane is augmented by the vowel *ä* with affirmative jussive verbs, but it is lacking in the negative jussive (and with imperfective verbs in subordination). Eastern Gurage, Harari and Gunnän Gurage also augment the 3rd person prefix *j-* in the affirmative jussive by the vowel *ä*, as in the Muher example (2). Eastern Gurage and Harari even extend the vowel *ä* to all prefixes in the affirmative jussive, Kistane only to the 1s.[19]

Word-initially, Argobba, Tigre and a southern variety of Tigrinya tend to omit the subject prefixes with imperfective verbs, as shown in Table 2 for Argobba (cf. Voigt 2004a:346–348 for a summary; but also Wetter 2010:170–175; Voigt 2009b).

4.3 Templates of the perfective, imperfective, and jussive conjugations

Only the simplex stem of triliteral Type A verbs is considered in this section due to its assumed common origin with Proto- and West-Semitic simplex stems.

4.3.1 Common Semitic background

The Proto-Semitic verb system is topic of various in-depth studies, but there is still no consensus about its formal categories and their functions.[20] According to

[18] In addition, Wolane and Silt'e have a special set of prefixes for negative imperfective verbs in main clauses (Meyer 2006:110–111; Gutt 1997:923).

[19] Cf. Meyer (2014:234–235) for a summary of hypotheses on the origin of the vowel *ä* augment.

[20] Cf., e.g. Kouwenberg (2010:97 fn. 33) and Voigt (2004b) for details.

Kouwenberg (2010:97–109, 587–591, 595–598), a Proto-Semitic verb inflects in two basic paradigms, namely *$C_1C_2VC_3$ plus a circumfix subject index and *$C_1aC_2VC_3$ plus a suffix subject index. The latter represents the stative conjugation in Akkadian, which took over the function of the perfective in West Semitic.[21] The template *$C_1C_2VC_3$ plus circumfix subject index has various functions. It marks the perfective as plain form, but the imperfective when followed by the suffix *-*u* (or *-*u:nV*). Without person prefixes, the template *$C_1C_2VC_3$ represents the imperative, but with the circumfix subject index, it functions as jussive – which further developed into a subjunctive.[22] The formal identity of jussive and perfective is dissolved by different intonation patterns, i.e. the jussive has an accented template vowel, whereas the subject prefix bears the accent in the perfective.

Table 3 Proto-Semitic conjugations

Template	Conjugation	Function
Primary System		
*$C_1C_2VC_3$	*CSJ-$C_1C_2VC_3$-CSJ	Perfective (original) > jussive (innovation)
	*CSJ-$C_1C_2VC_3$-CSJ-u	Basic imperfective
	*$C_1C_2VC_3$-CSJ	Imperative
*$C_1aC_2VC_3$	*$C_1aC_2VC_3$-SSJ	Stative
Secondary Development		
*$C_1aCC_2VC_3$	*CSJ-$C_1aCC_2VC_3$-CSJ	Pluractional imperfective

(adapted from Kouwenberg 2010:587)

The stative took over the function of the perfective in West Semitic, but the original perfective with the prefix subject index survived in specific syntactic contexts and irregular verbs. Consequently, the formal contrast circumfix vs. suffix subject index became an additional indicator for the functional opposition imperfective vs. perfective. The template *$C_1aCC_2VC_3$ of the pluractional imperfective is a secondary (or parallel) development in Akkadian and South Semitic, but not part of Proto-Semitic. In ES, the pluractional imperfective totally replaced the basic imperfective (with the template *$C_1C_2VC_3$), but is restricted to main clauses in Akkadian.

The vowel between C_2 and C_3 in Proto-Semitic was probably lexically conditioned, but in West Semitic the opposition high vowel **i* or **u* vs. low vowel **a* differentiates between active and passive forms of a verb (cf. especially Kogan 2005:163; but also Lipiński 1997:343–346; Weninger 2011c:156; Gensler 2011:156;

[21] Cf. also Gragg & Hoberman (2012:178–179); Weninger (2011c:162).

[22] For the multifunctionality of the template *$C_1C_2VC_3$, see also Lipiński (1997:335, 358); Rubin (2010:52–55); or Voigt (1977:33–34); Hudson (2000:79); among others.

Hudson 2008:112–113).[23] In ES, the Proto-Semitic vowels **i* and **u* merged into the mid-central vowel *ə* which finally became zero, whereas the Proto-Semitic vowel **a* is retained as *ä* (cf. Gragg & Hoberman 2012:162–163; Goldenberg 2013:77–80).[24]

4.3.2 Templates for the core conjugations in ES

4.3.2.1 Origin and form of the core inflectional templates

The templates for the core conjugations perfective, imperfective, and jussive vary between individual ES languages, as shown in Table 4, as well as between ES and earlier stages of West or Proto-Semitic:

Table 4 Templates for the simplex stem of Type A

			PERFECTIVE		JUSSIVE		IMPERFECTIVE
			TR.	ITR.	TR.	ITR.	
(1)	Gəʿəz	1/2 PS	$C_1äC_2äC_3$		$C_1C_2C_3$	$C_1C_2äC_3$	$C_1äCC_2C_3$
		3 PS	$C_1äC_2äC_3$	$C_1äC_2C_3$			
(2)	Mesqan, Muher, Kistane	AFF	$C_1äCC_2äC_3$		$C_1C_2C_3$	$C_1C_2äC_3$	$C_1äC_2C_3$
		NEG	$C_1äC_2äC_3$				
(3)	Chaha, Inor		$C_1ä(C)C_2äC_3$		$C_1C_2C_3$	$C_1C_2äC_3$	$C_1äC_2C_3$
(4)	Argobba	AFF	$C_1äCC_2äC_3$		$C_1C_2äC_3$		$C_1äC_2C_3$
		NEG	$C_1C_2äC_3$				
(5)	Zay	AFF	$C_1äC_2äC_3$		$C_1C_2äC_3$		$C_1äC_2C_3$
		NEG	$C_1C_2äC_3$				
(6)	Tigre	1/2 PS	$C_1äC_2äC_3$		$C_1C_2äC_3$		$C_1ä(C)C_2C_3$
		3 PS	$C_1äC_2C_3$				
(7)	Tigrinya		$C_1äC_2äC_3$		$C_1C_2äC_3$		$C_1ä(C)C_2C_3$
(8)	Amharic		$C_1äCC_2äC_3$		$C_1C_2äC_3$		$C_1äC_2C_3$
(9)	Harari, Silt'e, Wolane		$C_1äC_2äC_3$		$C_1C_2äC_3$		$C_1äC_2C_3$

[23] According to Lipiński (1997:344), this vowel contrast is analyzed variously in Semitic, namely as marker for transitive vs. intransitive verbs (valence), active vs. stative verbs (lexical aspect), or agent-subject vs. theme-subject (affectedness). In the following, the valence opposition *transitive* vs. *intransitive* is used as shorthand for all three functions.

[24] The occurrence of the vowel *ə* in verb bases is almost always predictable through syllable constraints in ES. The cluster $C_1C_2C_3$, for instance, can be resolved as $C_1C_2əC_3$ or $C_1əC_2C_3$ depending on the sonority of the consonants, as in the Muher examples (g) and (h) in Table 5 (see also Rose 2007:405). Therefore, the vowel *ə* is considered an epenthetic vowel which does not belong to the vowel pattern in a template.

The most consistent template among the various ES languages in Table 4 is that of the imperfective conjugation, which only varies in the gemination of C_2. In the majority of ES languages, the imperfective template is $C_1äC_2C_3$ – with a single C_2. Only North ES, namely Gəʿəz, Tigre and Tigrinya, geminate C_2 in the imperfective template, but even in Tigre and Tigrinya geminated C_2 is restricted to specific environments (see Section 4.3.2.2).

The jussive conjugation encompasses two templates in ES, namely $C_1C_2C_3$ and $C_1C_2äC_3$.[25] In Gəʿəz (North ES), and in Mesqan, Muher, Chaha and Inor (all Gunnän Gurage), these templates distinguish between intransitive ($C_1C_2äC_3$) and transitive ($C_1C_2C_3$) verbs, but represent morphosyntactically conditioned allomorphs of a single verb in Kistane (Gunnän Gurage). The remaining ES languages only use a single template for all jussive verbs, namely the apparently intransitive pattern $C_1C_2äC_3$ (cf. Section 4.3.2.3 for details). The two jussive templates in ES most probably developed from the template $*C_1C_2VC_3$ (cf. Section 4.3.1), which is also part the subjunctive, and imperfective and perfective verbs in Proto-Semitic. Remnants of these non-jussive functions also survived in individual ES languages.

The subjunctive, i.e. subordinate jussive verbs, is found in Gəʿəz, Tigre and Tigrinya (all North ES). It is relatively frequent in Gəʿəz (cf. Tropper 2002:193–196), but restricted to clauses marked by the complementizer *ʔəgəl* 'that, (in order) to' in Tigre (cf. Raz 1983:68, 92). For Tigrinya, the situation is less clear. Voigt (1977:429–437) lists a number of constructions with subordinate jussive verbs, whereas Praetorius (1871:334) reports that they are rather exceptional in subordination. Kogan (1997) does not mention subordinate jussive verbs at all. Thus, it seems that even if they exist, they are rather marginal in Tigrinya. In South ES, the jussive template and a nominalizing affix form the verbal noun, as in Amharic *mä-sbär*, Zay *wä-sbär*, Wolane *səbär-ot*, Muher *wä-sbər*, etc. – all meaning 'to break, breaking'. Furthermore, Chaha and Inor have a special converb, which is formed from the jussive template plus the suffix subject index (cf. Section 4.4). Chaha and Inor (Gunnän Gurage) also have a periphrastic construction involving a jussive verb to refer to future situations

(3) *zə* *təkä* *mätʃä* *anfʷ-ätä* *jə-fta-ʃä?* CHAHA
PRX child when.NPST mouth-POSS.3SM 3SM-open\JUSS-AUX.FUT
'When will this baby start speaking?' (Hetzron 1996:108)

[25] The jussive and imperative conjugations are almost identical in ES, i.e. they are marked by the same templates to which the circumfix subject index is attached. However, the imperative exclusively occurs in affirmative main clauses with 2nd person subjects, which are indexed only with the suffixes of the circumfix set, whereas the jussive inflects regularly and is used in all non-imperative clauses (cf. Hetzron 1977:86–87).

Future constructions in Chaha and Inor, such as in (3), consist of a jussive verb with a subject index typical for imperfective verbs[26] and are followed by the invariable auxiliary *ʃä* in Chaha or *se* in Inor which both mean ‘want’ (Leslau 1983:18). These constructions express the speaker’s uncertainty about the realization of the verbal situation (Hetzron 1996:109).[27] A similar future construction also exists in Tigre:

(4) *faḳər* *bas’əʕ* *ʔəgəl* *ni-gis* *tu.* TIGRE
tomorrow Massawa CPL 1S-go\JUSS COP.3SM
‘Tomorrow we shall go to Massawa.’ (Raz 1983:69)

The Tigre example (4) contains a subordinate jussive verb marked by the conjunction *ʔəgəl* ‘that’ and which is followed by the invariable 3SM copula *tu*. Functionally, (4) is the common expression for the future tense without any connotation of uncertainty (Raz 1983:68).

Furthermore, the jussive template in combination with the suffix subject index marks the negated perfective of Type A verbs in Argobba (cf. Wetter 2010:77) and Zay (Meyer 2005:138), but in no other ES language:

(5) a. Affirmative *däläs-hu-n-u* ‘I waited’ ZAY
wait\PFV-1S-FOC-MVM
b. Negative *ʔal-dəläs-uhu* ‘I did not wait’
NEG-wait\JUSS-1S.MVM (MEYER 2005:112)

The base of the Argobba past auxiliary *əmbär* seems to consist of the jussive template $C_1C_2äC_3$ and the root √nbr ‘reside’ (with initial epenthetic vowel *ə*, and nasal assimilation of *n* to *m*), but it inflects with the suffix subject index (cf. Wetter 2010:212–213).

Beside the regular inflection, the root √bhl ‘say’ in Gəʿəz and Tigre (both North ES) has a second perfective conjugation, which is formed from a distinct template and the circumfix subject index. Although these two conjugations formally resemble the contrast between perfective and imperfective, they do not encode different viewpoints or tenses:

---

[26] That means the prefix *j-* is not augmented by the vowel *ä*, and the index for the 1S is *ä-* instead of *n-* (cf. Hetzron 1972:60–61).

[27] According to Hetzron (1977:85–86), this construction encodes the *indefinite future*, which contrasts with the *definite future* – another periphrastic construction based on an imperfective verb followed by a marker for clausal status (cf. Hetzron 1996 for details).

(6) *bəhl-ä*[28] or *jə-be* ‘he said’ GƎʿƎZ
say\PFV-3SM 3SM-say\PFV (Tropper 2002:126)

(7) a. *bel-at* or *tə-be* ‘she said’ TIGRE
say\PFV-3SF 3SF-say\PFV

b. *tel-ki* or *tə-ba-j* ‘you (F) said’
say\PFV-2SF 2SF-say\PFV-SF (Raz 1983:64)

The two perfective conjugations of the root √bhl are regularly in Gəʿəz (for which see Tropper 2002:125–127), but defective in Tigre. That means Tigre always marks 3SM and 3P subjects with the suffix subject index and 1st person subjects with the circumfix subject index. The verbs for 2nd person subjects, as *telki* in (7b), seem to combine the prefix *t-* of the circumfix subject index and the corresponding morpheme *-ki* of the suffix subject index (cf. Raz 1983:40, 64). Although there is no common agreement whether the template of the perfective verb marked by the circumfix subject index in (6) (and (7)) is indeed related to the Proto-Semitic template *$C_1C_2VC_3$, the formal and functional coincidence is obvious (cf. Tropper 2002:126–127; Voigt 2000 for further details). Beside these exceptional uses of the jussive template, its basic function is to mark the jussive mood in ES. Therefore, it will not be included in the discussion on aspect and tense.

The largest variety of templates in Table 4 is found in the perfective conjugation due to language-specific developments. All ES language have the perfective template C_1ä(C)C_2äC_3 – with the vowel *ä* preceding and following C_2. This template represents the Proto-Semitic stative conjugation consisting of *$C_1aC_2VC_3$ and suffixed person markers (see Section 4.3.1). Lipiński (1997:336–337) considers only *$C_1aC_2C_3$ to be the original template, in which an epenthetic vowel (i.e. **i*, **u* or **a* – depending on the transitivity of the verb) was inserted between C_2 and C_3 with zero-marked 3SM subjects to avoid the final consonant cluster. Finally, *$C_1aC_2aC_3$ (i.e. C_1äC_2äC_3 in ES) became the canonical template for all persons in West Semitic.

Such a development could also account for the alternating perfective templates in Gəʿəz and Tigre (North ES), but in a reversed distribution: C_1äC_2C_3 with the final consonant cluster exclusively occurs with 3rd person subjects, while C_1äC_2äC_3 is used with all other persons. Contrary to the assumed zero morpheme with 3SM subjects, all 3rd person subject suffix indexes in Gəʿəz and Tigre start with a vowel, whereas the indexes for all other persons have an initial consonant (cf. Tropper 2002:88 for Gəʿəz; Raz 1983:55 for Tigre). Given Lipiński's (1997:336–337) consonant cluster constraint,[29] C_1äC_2C_3 would then be the preferred pattern for 3rd person subjects, but C_1äC_2äC_3 for all other subjects. Exactly this distribution is found in Tigre, in which the template C_1äC_2C_3 is used with 3rd person subjects, like *k'ans'-a* ‘he got up’,

[28] The roots √bhl ‘say’ and √khl ‘be able’ are exceptional in Gəʿəz, i.e. they do not appear in the canonical templates for triliteral Type A verbs (Tropper 2002:125).

[29] Cf. Gragg & Hoberman (2012:163–165) for general syllable constraints in Semitic.

k'ans'-at 'she got up', etc., while all other subjects have the template $C_1äC_2äC_3$, e.g. *k'anas'-ko* 'I got up', *k'anas'-ka* 'you (M) got up', etc. (Raz 1983:55). This would imply that Tigre preserved an archaic phonological variation of an earlier stage of Semitic.

In Gəʿəz, the occurrence of $C_1äC_2C_3$ is also restricted to 3rd person subjects (cf. (8c) vs. (8d)), but not exclusively. Contrary to Tigre, the template $C_1äC_2äC_3$ likewise occurs with 3rd person subject in Gəʿəz, as in (8a):

(8) a. *nägär-ä* tell\PFV-3SF 'he told'
b. *nägär-kä* tell\PFV-2SM 'you told'
c. *läbs-ä* dress\PFV-3SF 'he dressed'
d. *läbäs-kä* dress\PFV-2SM 'you dressed'
GƎʿƎZ
(Tropper 2002:88)

Thus, the distribution of the two perfective templates in Gəʿəz is not phonologically conditioned. According to Tropper (2002:88), it reflects the lexicalized distinction transitive verb with the template $C_1äC_2äC_3$ vs. intransitive verb with $C_1äC_2C_3$, as in (8a) vs. (8c) (cf. also Section 4.3.2.3).

Moreover, the perfective template $C_1äC_2C_3$ is sporadically found in other ES languages in which it is restricted to roots with specific phonological features. In Tigrinya (North ES), the template $C_1äC_2C_3$ occurs with 3rd person subjects if the root ends in a laryngeal, i.e. *ʔ*, *ʕ*, *h*, or *ħ* (cf. Leslau 1941:76; and also Kogan 1997:427).[30] Chaha and Inor regularly inflect triliteral roots with the perfective template $C_1äC_2C_3$ if the nasal *n* occurs in C_2 position and is followed by an alveolar stop (i.e. *t*, *d*, *t'*), like *fänd-ä-m* [judge\PFV-3SM-MVM] 'he judged' (cf. Hetzron 1977:76).

Several South ES languages have distinct templates for the affirmative and negative perfective. In Argobba and Zay (Transversal South ES) the negative perfective template is identical to the jussive template $C_1C_2äC_3$, whereas the affirmative perfective template is $C_1äCC_2äC_3$ in Argobba, and $C_1äC_2äC_3$ in Zay (cf. example (5) above). Kistane, Mesqan, and Muher (Gunnän Gurage) have the template $C_1äCC_2äC_3$ with geminated C_2 in the affirmative perfective, but $C_1äC_2äC_3$ with single C_2 in the negative (see example (2) above).

The remaining ES languages have only one template for the perfective: $C_1äCC_2äC_3$ with geminated C_2 in Amharic – and assumingly in Chaha and Inor (see next section) – but $C_1äC_2äC_3$ with non-single C_2 in Tigrinya, Harari, Silt'e and Wolane.

4.3.2.2 Gemination of C_2

Regarding the gemination of C_2, the languages in Table 4 can be clustered into three groups: (i) Gəʿəz, Tigre and Tigrinya (North ES) geminate C_2 in the imperfective but

[30] The template $C_1äC_2C_3$ seems also to be an optional perfective template in the medio-passive stem of Type A verbs in Tigrinya (Kogan 1997:436).

not in the perfective; (ii) Gunnän Gurage, Argobba, and Amharic have just the reverse pattern – geminated C_2 in the (affirmative) perfective but single C_2 in the imperfective; and (iii) Eastern Gurage and Harari never geminate C_2. The gemination pattern in North ES is commonly considered the original or most archaic situation in ES (or even Proto-Semitic), whereas it underwent innovations in all remaining languages.[31] Be that as it may, gemination of C_2 in inflectional templates of Type A verbs is generally unstable and variable.

In Tigre and Tigrinya (North ES), the gemination of C_2 seems to be in a transition phase in the imperfective because its occurrence is phonologically conditioned, i.e. imperfective bases to which a vowel-initial subject index is attached no longer geminate C_2. Consequently, one half of the inflected verb have a single C_2, namely those with 2SF and 2/3P subjects, whereas the remaining half geminates it (cf. Voigt 1990:13). In Chaha and Inor, another phonological process triggered the loss of gemination. In these languages, underlying geminated C_2 is not audible longer than its single counterpart, but devoiced (cf. Rose 2007:406–408 for details). As a result, gemination can only be deduced for voiced consonants, whereas voiceless consonants neutralized this phonological contrast. For instance, the single consonant *p* in (9a) represents underlying geminated C_2 from the perfective template $C_1äCC_2äC_3$ in Chaha, which, however, can only be inferred by contrasting it with the single consonant *b* in the imperfective base of the same Chaha root in (9b), or with geminated *bb* in a cognate root, as in the Muher perfective base (10):

(9) a. *säpär-ä-m*
break\PFV-3SM-MVM
'he broke'

b. *jə-säbər*
3SM-break\IPFV
'he breaks'

CHAHA

(10) *säbbär-ä-m*
break\PFV-3SM-MVM
'he broke'

MUHER

Closely related varieties to Chaha and Inor realize gemination variously: Ezha has a clear length distinction between geminated vs. single C_2 without devoicing, whereas Endegagn devoices and lengthens geminated C_2 (cf. Rose 2006). The situation in Gumer, Gura, Gyeta, etc. is far from clear. The gradual loss of gemination, as in Chaha and Inor, could eventually lead to a gemination pattern currently found in Eastern Gurage and Harari. On the other hand, triliteral roots with *r* as final consonant in Gunnän Gurage may geminate the preceding C_2 in the jussive (cf. Leslau 1967). Furthermore, a weak root-initial consonant, which often is deleted in

[31] Cf. Hudson (2005:200–201) for a summary of arguments for the diachronic supremacy of the North ES gemination pattern. Even a Proto-Afroasiatic origin is often suggested (cf. Edzard 2012:37–38).

the jussive conjugation in Gunnän Gurage, may trigger gemination of the following root consonant, i.e. C_2.

From a diachronic perspective, gemination of C_2 is considered an iconic grammatical exponent for verbal plurality or an increase in duration or intensity as semantic subcategories of the imperfective aspect (cf. Hudson 2008:110). Therefore, it is associated with the (pluralactional) imperfective, i.e. *$C_1aCC_2VC_3$, but not with the stative/perfective template *$C_1aC_2VC_3$ (cf. Rundgren 1959:182–184; Voigt 1977:33; 1990:9–16; Lipiński 1997:338). Consequently, Hetzron (1972:22–24, 120 notes 1 & 6) assumes that the loss of geminated C_2 in the imperfective (through a leveling process similar to that in current Tigre and Tigrinya) and its introduction in the perfective are the constituting innovations in South ES. Such a scenario is neither stringent nor fully back by the data. Rundgren (1955:56–58, 136–140, etc.) and Hudson (2005:201; 2007:343–344),[32] for instance, doubt that a phonological constraint, as in Tigre and Tigrinya, was the trigger for the loss of gemination in the imperfective because it is retained in all forms with Type B verbs. Moreover, they argue that gemination is not an archaic feature of the imperfective in ES, but a secondary development facilitated by the lexicalization of the Semitic doubling stem into the ES Type B. Geminated C_2 in the perfective template in South ES – except Eastern Gurage and Harari – could originate by merging Type A (with single C_2) and Type B (with geminated C_2), and a subsequent leveling process according to the latter (cf. Hetzron 1972:22–23; 1990:14). The additional negative perfective template in Kistane, Mesqan and Muher with single C_2 supports this hypothesis (cf. Rundgren 1959:187–188; Goldenberg 2013:129). Eastern Gurage and Harari could have lost geminated C_2 through a more recent development triggered by verbs of Type B. Beside geminated C_2, Type B verbs are characterized by the front vowel *e*∼*i* (or palatalization), which became the only distinctive feature for Type A and B so that gemination was eventually abandoned (cf. Hetzron 1972:42–44).

In conclusion, the gemination of C_2 in verb inflection varies remarkably across ES, and is influenced by grammatical traits, i.e. a template, as well as language-specific phonological traits or diachronic developments. Therefore, it is most probably too simplistic to reduce this complexity to a common Proto-ES gemination pattern.

4.3.2.3 Transitive vs. intransitive verbs

In Proto-Semitic, the quality of the vowel in the template *$C_1C_2VC_3$, probably denotes the transitivity value of a verb (cf. Lipiński 1997:334–336). These two patterns are retained in the two ES jussive templates, namely transitive $C_1C_2C_3$ vs. intransitive $C_1C_2äC_3$, as shown in the following table:

[32] Cf. even Hetzron (1972:129, fn. 14).

Table 5 Variation of jussive templates in Gəʿəz and Muher with 3SM subjects

	ROOT	GLOSS	GƎʿƎZ[33]		MUHER	
(a)	√wrd[34]	'go down'	*jə-räd*	$C_1C_2äC_3$	*jä-räd*	$C_1C_2äC_3$
(b)	√lbs	'wear or put on clothes'	*jə-lbäs*	$C_1C_2äC_3$	*jä-lbäs*	$C_1C_2äC_3$
(c)	√k'tl[35]	'kill'	*jə-k'təl*	$C_1C_2C_3$	*jä-ʔt'i*	$C_1C_2C_3$
(d)	√sdg	'prostrate oneself'	*jə-sgəd*	$C_1C_2C_3$	*jä-səgd*	$C_1C_2C_3$
(e)	√ndd	'be inflamed, burn'	*jə-ndəd*	$C_1C_2C_3$	*jä-ndäd*	$C_1C_2äC_3$
(f)	√bsl	'cook (itr), be ripe'	*jə-bsəl*	$C_1C_2C_3$	*jä-bse*	$C_1C_2äC_3$
(g)	√kbr	'be honored'	*jə-kbär*	$C_1C_2äC_3$	*jä-kbər*	$C_1C_2C_3$
(h)	√k'rb	'be near'	*jə-k'räb*	$C_1C_2äC_3$	*jä-ʔərb*	$C_1C_2C_3$

Table 5 shows that $C_1C_2äC_3$ is restricted to intransitive verbs, or verbs whose semantics includes an intransitive reading, such as √*lbs* 'wear' or 'put on clothes' in (b).[36] But not all intransitive verbs inflect with this template, like √*sdg* 'prostrate oneself' in (d), which uses the transitive template $C_1C_2C_3$. Furthermore, cognate verbs do not always inflect consistently, i.e. only the verbs in examples (a–d) in Table 5 use the same template in Gəʿəz and Muher, whereas the templates for the verbs in (e–h) differ.

From a synchronic point of view, the assumed transitivity contrast (or related concepts)[37] do not clearly delimit the semantics of the verbs in either template in Table 5. Regarding valence, the verbs in (e–h) are intransitive, but the Gəʿəz verbs in (e–f) and the Muher verbs in (g–h) inflect like transitive verbs. The verbs √*wrd* 'go down' in (a) and √*lbs* 'put on clothes' in (b) denote actions, as the verb √*sgd* 'prostrate oneself' in (d). However, only the verb in (d) uses the transitive template, while the verbs in (a–b) inflect in the intransitive template. Similarly, all subjects of the verbs in (a–b) and (d) are affected by the verb action, but inflect in different

---

[33] The Gəʿəz data are based on Lambdin (1978:149) and Leslau (1991).

[34] The glide *w* as root-initial consonant is deleted in the jussive base in Gəʿəz and Muher.

[35] The Muher cognate to the Gəʿəz root √*k'tl* 'kill' is √*k't'j*. The ejective *k'* regularly debuccalizes in Muher when preceded by a vowel, i.e **Vk' > V?*. The alternation between voiceless and ejective plosive, as in *t~t'*, is not infrequent, but still needs further investigation. The diachronic sound change **l>j*, in contrast, regularly occurs with root-final consonants in Muher. Consequently, Gəʿəz √bsl in (f) appears as √bsj in Muher. The glide *j* is realized as vowel *i* when immediately preceded by a consonant, as in **jä-k't'j > jä-ʔt'i* 'Let him kill!', or assimilates to a preceding vowel, as in **jä-bsäj > jä-bse* 'Let it cook!' in (f).

[36] This might also apply for the Gəʿəz verb √*gbr* 'do, work, make', which seems to be a transitive verb that inflects with the intransitive templates, i.e. *gäbr-ä* in the perfective and *jɨ-gbär* in the jussive. Although this verb predominantly occurs in transitive contexts, Leslau (1991:178) also provides the intransitive reading 'be active' as a translation variant.

[37] See footnote 23.

templates. In short, the template $C_1C_2äC_3$ exclusively occurs with intransitive verbs, but not all intransitive verbs inflect in this template. The template $C_1C_2C_3$ is frequently found with transitive and intransitive verbs. Thus, the form of the respective jussive template is a lexical feature of the respective verb in a specific ES language.

Another important point in connection with the two jussive templates is their frequency. Given the equal treatment of the two templates in grammars, their distribution seems to be almost proportional.[38] In Muher (and apparently also in the remaining Gunnän Gurage languages), in contrast, the majority of triliteral Type A verbs inflect with the transitive template $C_1C_2C_3$ in the simplex stem; only a small number of verbs use the intransitive template $C_1C_2äC_3$.[39]

The varying frequencies for the intransitive template in Gəʿəz and Muher probably result from a diachronic change preferring the transitive template for the jussive. Accordingly, the optional inflection of quite a number of Gəʿəz verbs in either jussive template (cf., e.g. Lambdin 1978:149; Tropper 2002:90) could reflect a diachronic development that may result in a single jussive template, as in Tigre, Tigrinya (both North ES), or in Transversal South ES. Such a process seems still to be visible in Kistane, in which the two jussive templates are used with the same verb under specific morphosyntactic condition, i.e. $C_1C_2C_3$ is restricted to affirmative jussive verbs with 1SG, 3SM or 3P subjects, while $C_1C_2äC_3$ occurs with all other subjects and in negation (cf. Goldenberg 1968:95–96; Leslau 1968:22; and also Bedilu 2001:18):

(11)	a.	$C_1C_2C_3$	*jä-k'rəs* 3SM-begin\JUSS	'Let him begin!'	KISTANE
	b.	$C_1C_2äC_3$	*a-jə-k'räs* NEG-3SM-begin\JUSS	'Do not let him begin!'	
	c.	$C_1C_2äC_3$	*tə-k'räs* 3SF-BEGIN\JUSS	'Let her begin!'	(GOLDENBERG 1968:95)

There is an important formal difference between Gəʿəz and Gunnän Gurage, on the one hand, and Tigre, Tigrinya and Transversal South ES, on the other. The former group seems to be in a leveling process in favor of the transitive template $C_1C_2C_3$ for

[38] The list of 28 Type A verbs given in Lambdin (1978:149) as example for the jussive conjugation might be representative for Gəʿəz to a certain extent. Among these 28 verbs, 4 verbs (or 14%) exclusively inflect in the intransitive template, whereas 9 verbs (or 32%) may optionally use it. The first figure, 14%, is similar to the Muher situation mentioned in footnote 39. However, all in all a total of 13 Gəʿəz verbs (or 46%) may actually inflect with the intransitive template, which would account for almost half of the verbs.

[39] Among 158 triliteral simplex verbs of Type A in my Muher data, only 26 verbs (i.e. 16,5%) inflect in the intransitive template.

the jussive, whereas the latter group, which already finalized this process, exclusively inflects with intransitive template $C_1C_2äC_3$. Such a generalization of the intransitive pattern as common jussive template is contra-intuitive because the transitive pattern, i.e. $C_1C_2C_3$, is functionally less marked (as it occurs with transitive and intransitive verbs) and more frequent in Gunnän Gurage. As individual Semitic language vary in the transitivity value they ascribe to the two jussive templates, the pattern $C_1C_2äC_3$ could have been associated with intransitive verb in Gəʿəz and Gunnän Gurage, but with transitive verbs in the remaining ES languages (cf. Lipiński 1997:344).

Gəʿəz is the only ES language that formally distinguishes between transitive and intransitive verbs in the perfective by the templates $C_1äC_2äC_3$ or $C_1äC_2C_3$. The intransitive template $C_1äC_2C_3$ is said to originate from an early Semitic template with the vowels **i* or **u* between the last two consonants, which merged into *ə* and finally became zero (cf. Rundgren 1959:49–50; Tropper 2002:87). The intransitive template $C_1äC_2C_3$ only occurs with 3rd person subjects, whereas all other subjects uniformly inflect in the template $C_1äC_2äC_3$. Table 6 shows the perfective equivalents of the Gəʿəz verbs listed in Table 5.

Table 6 Variation of perfective templates in Gəʿəz with 3SM subjects

	ROOT	**GLOSS**	**PERFECTIVE**		**JUSSIVE**		
(i)	√lbs	‘wear/put on clothes’	*läbs-ä*	$C_1äC_2C_3$	(b)	*jə-lbäs*	$C_1C_2äC_3$
(ii)	√kbr	‘be honored’	*käbrä*	$C_1äC_2C_3$	(g)	*jə-kbär*	$C_1C_2äC_3$
(iii)	√k’rb	‘be near’	*k’ärbä* *k’äräbä*	$C_1äC_2C_3$ $C_1äC_2äC_3$	(h)	*jə-k’räb*	$C_1C_2äC_3$
(iv)	√wrd	‘go down’	*wäräd-ä*	$C_1äC_2äC_3$	(a)	*jə-räd*	$C_1C_2äC_3$
(v)	√k’tl	‘kill’	*k’ätälä*	$C_1äC_2äC_3$	(c)	*jə-k’təl*	$C_1C_2C_3$
(vi)	√bsl	‘be cooked/ripe’	*bäsälä*	$C_1äC_2äC_3$	(f)	*jə-bsəl*	$C_1C_2C_3$
(vii)	√sdg	‘prostrate (onself)’	*sägädä* *sägdä*	$C_1äC_2äC_3$ $C_1äC_2C_3$	(d)	*jə-sgəd*	$C_1C_2C_3$
(viii)	√ndd	‘be inflamed, burn’	*nädädä* *näddä*	$C_1äC_2äC_3$ $C_1äC_2C_3$	(e)	*jə-ndəd*	$C_1C_2C_3$

(Data from Lambdin (1978:149) and Leslau (1991))

Among the four intransitive jussive verbs in Table 5, only three verbs (i–iii) inflect with the intransitive perfective template in Table 6; the verb in (iii) can alternatively be inflected with the transitive base. The verb √*wrd* ‘go down’ in (iv) inflects with the intransitive template in the jussive, but with the transitive template in the perfective. The four transitive jussive verbs in Table 5, i.e. (v–vii) in Table 6, also inflect with the transitive template in the perfective, but two of them (vi–v) may also use the intransitive perfective template. As many Gəʿəz verbs optionally use either template in the perfective, Rundgren (1955:52) concludes that the contrast transitive vs. intransitive is no longer functional.

Beside Gəʿəz, Tigre also has two templates in the perfective conjugation, whose distribution is governed by a phonological constraint (see Section 4.3.2.1). All other ES languages only use the template C_1ä(C)C_2äC_3 in the perfective. Given the discussion in Section 4.3.2, Tigre preserved the archaic pattern, in which the perfective template with 3rd person subjects differs from that of the 1st and 2nd person due to a phonological constraint. In Gəʿəz, the occurrence of two templates was reinterpreted as representing the semantic contrast transitive vs. intransitive known from the jussive. Consequently, the template C_1äC_2äC_3, which was originally restricted to 1st and 2nd person subjects, was extended to 3rd person subjects. This assumption could explain the high degree of variation mentioned by Rundgren (1955:52), and also accounts for the restriction of the assumed transitive–intransitive opposition to 3rd person subjects.

Finally, Hudson (2008; and also 1991; 1994:54) is of the opinion that Type A and B verbs in ES result from an older distinction between stative and active verbs. Be that as it may, from a synchronic perspective, the formal marking of the opposition transitive vs. intransitive, or active vs. stative is no longer productive in ES but fully lexicalized.

4.4 Converbs

Converbs are dependent verbs used for adverbial modification and in narrative clause chaining (Haspelmath 1995:3; but also Ebert 2008:7–8). Following Polotsky (1951), Hetzron (1972:98–115) established the term converb and the linguistic concept it denotes in the study of ES in general.[40] Example (12) shows that a specific type of dependent verbs in Amharic either constitute an adverbial clause (a), or connect several clauses into a sequence of actions (b), i.e. these verbs are converbs:

(12) a. *sädbo-ɲɲ* *mätta-hu-t.* AMHARIC
insult.CNV.SJ.3SM-OJ.1S hit.PV-SJ.1S-OJ.3SM

'I hit him because he insulted me.' (Leslau 1995:361)

b. *gondär* *därəʃʃe* *zämäd-ottʃ-e-n* *t'äjjəkk'e* *addis abäba* *ʔə-mmälläs-allä-hʷ.*
Gondar arrive.CNV.1S relative-PL-POSS.1S-ACC ask.CNV.1S Addis_Ababa 1S-return\IPFV-AUX.NPST-1S

'I go to Gondar, visit my relatives, and return to Addis Ababa.'

(Leslau 1995:361)

[40] Several terms were (and still are) used as alternative designations – among which *gerund* is most popular (cf. Meyer 2012:186–188 for an overview).

Almost all other ES languages have equivalent converb constructions for adverbial modification and clause chaining.[41] In adverbial function, converbs basically modify a main verb for concomitant circumstances, which frequently are interpreted as manner adverbials, but can also have a causal reading, as in (12a).[42] Many ES languages have only a general converb, i.e. a single, semantically unspecific converb form whose actual interpretation is inferred from the context (cf. Ebert 2008:8–9).

Converbs occur in most Afroasiatic and Nilo-Saharan languages spoken at the Horn of Africa. Since Ferguson (1970), they even constitute a grammatical feature of the Ethiopian Linguistic Area (cf. Crass & Meyer 2008 – especially pp. 232-233). As Asian Semitic languages do not have a converb, it is considered a contact-induced innovation in ES (cf. Azeb & Dimmendaal 2006:409–410; Hetzron 1972:110–111),

Although most ES languages have a functional converb equivalent, its formal features are not uniform (cf. Hetzron 1972:100–103; Ebert 2008:26–31; Goldenberg 2013:296–299). Only four ES languages, namely Gəʿəz and Tigrinya (North ES) (cf. Weninger 2014; but also Voigt 1977:140–142), as well as Amharic and Argobba (Transversal South ES) (cf. Meyer 2012; Wetter 2007), formally mark the converb by a distinct template. These inflected converbs are dependent verbs,[43] which predominantly occur in an affirmative form.[44] Inflected converbs, which all stem from the template $C_1äC_2iC_3$, are unmarked for aspect and mood, but they obligatorily index their subject by a set of suffixes that originate from possessive suffixes (Hetzron 1972:100). The converb templates for triliteral Type A verbs are as follows:

Table 7 Inflected converb of triliteral Type A verbs

	LANGUAGE	TEMPLATE
(a)	Gəʿəz	$C_1äC_2iC_3ä$-SJ/POSS
(b)	Tigrinya	$C_1äC_2iC_3$-SJ/POSS
(c)	Amharic	$C_1äC_2C_3ä$-SJ/POSS
(d)	Argobba	$C_1äC_2CC_3ä$-SJ/POSS

[41] For a possible connection between these functions, see Motomichi (2001).

[42] Hetzron (1972:99) proposes a third "consecutive" converb function for expressing anteriority – in addition to the clause-chaining and adverbial functions (which roughly correspond to Hetzron's "serial" and "coextensive" converbs). As anteriority is also a salient feature of the clause-chaining and adverbial functions, the consecutive function, which is neither semantically nor formally clearly delimited from the other two converb functions (cf., e.g. Azeb & Dimmendaal 2006:412–413), is neglected here.

[43] Cf. Section 6.3 for the formal difference between bare converbs in subordination and main clauses.

[44] Negated converbs are rare in Gəʿəz and Tigrinya (cf. Weninger 2014:287; Voigt 1977:169), but totally lacking in Argobba (Wetter 2010:197), and Amharic – with the exception of the Gojjam variety (cf. fn. 73 in Section 6.3).

Due to the common template C_1äC_2iC_3, the Gəʿəz converb obviously grammaticalized from a verbal noun in the adverbial accusative marked by the suffix *-ä* to which a possessive suffix for subject indexing was attached (cf. Weninger 2014:287–289). The evolving formal (and consequently functional) independence of converb and verbal noun in Gəʿəz is evidenced by certain morphological differences between them. According to Tropper (2002:96–97), the template vowel *i* regularly occurs in converbs, but only in verbal nouns from the simplex stem. Derived stems lack the template vowel *i* and are obligatorily augmented by the suffix *-o(t)*, which is optional in the simplex stem. The final *t* of the suffix *-o(t)* usually occurs before possessive suffixes. In Tigrinya, Amharic and Argobba, the converb template is totally different from that of the verbal noun, and the suffix *-ä* does not function as case marker anymore. In addition, the form of certain possessive suffixes slightly differs from the corresponding converb subject index. As a result, the converb is formally marked as a separate inflectional category in these languages.

Regarding the shape of the converb template, Tigrinya lacks the final vowel *ä*, while the vowel *i* between C_2 and C_3 is absent in Amharic and Argobba. Kapeliuk (1997:493), therefore, connects these converbs to the verbal noun of derived stems in Gəʿəz, which also lack the vowel *i*. Furthermore, Argobba, in particular the Shonke/T'ollaha variety of Argobba, geminates the last consonant of the converb template, which probably stems from an additional suffix **-tä* whose initial alveolar plosive totally assimilates to the preceding consonant yielding geminated CC_3.[45]

Most other ES languages only have a functional converb construction based on regularly inflected perfective, imperfective, or jussive verbs, which are marked as dependent verbs by a suffixed linker (cf., e.g. Meyer 2014:248–249).[46] Like inflected converbs, the linker converbs are used for adverbial modification or clause chaining, as shown in the following examples from Harari:

(13) a. *rōga-ma* *agäd-o.* HARARI
steal\PFV.3SM-CNV arrest\PFV-SJ.3P.OJ.3SM
'They arrested him because he has stolen (lit. he stole and they arrested him).' (Beniam 2013:510)

b. *dilāga-zo-w* *jä-ħēldi-ma* *jä-lēt'.*
work-POSS.3SM-ACC 3SM-finish\JUSS-CNV 3SM-go\JUSS
'He should finished his work and go!' (Beniam 2013:254)

[45] Note that the Aliyu Amba variety of Argobba has the converb template C_1äC_2C_3-d(ä), in which the augment *-dä* is assumed to represent underlying **-tä* (cf. Hetzron 1972:100; Wetter 2007:104).

[46] Formal and functional aspects of this converb type are well studied for Inor (Suter 2008) and Gumer (Völlmin 2010), which belongs to the Chaha group.

The linker converb and the main verb usually belong to the same conjugation type, i.e. main verbs in the perfective aspect or jussive mood only co-occur with the respective linker converbs. Imperfective main verbs, however, may combine with perfective or imperfective linker converbs, as in (14):

(14) a. *amērikä* ***hīd-nä-m*** ***jə-ʧl-ənä-n-ā.*** ZAY
America go\PFV-1P-CNV 1P-know\IPFV-1P-FOC-AUX.NPST.MVM
'We have been to America [lit. we went to America and we know].'
(Meyer 2005:365)

b. *"nomum* *t'äbäl* *k'umos!"* ***jəbələm*** ***jət'ärälo.***
nomu-m t'äbäl k'mäs-^{w} j-bəl-m j-t'är-älä-u
come\JUSS.2P-CNV meal taste\JUSS-2P 3SM-say\IPFV-CNV 3SM-call\IPFV-AUX.NPST.3SM-MVM
'He calls [them] saying "Come and taste the meal!"' (Meyer 2005:372)

Similar to inflected converbs, linker converbs clearly predominate with affirmative verbs (cf. Meyer 2014:250). Negated linker converbs exist in Kistane (Bedilu 2010:126–128) and Harari (Beniam 2013:512–513), as well as in Zay and Silt'e, where they are extremely rare (cf. Meyer 2005:171, 158–159; Gutt 1997:920 for examples). In the remaining Gunnän Gurage languages and Wolane, a linker converb cannot be negated (Hetzron 1977:98; Meyer 2006:131).

The most common linker is the suffix *-m* (and its allomorphs), which is found in Zay (Meyer 2005:171–173) and Gunnän Gurage (Hetzron 1977:94–96), and probably also part of the linker *-ma* in Harari (Beniam 2013:254). These linkers are also used as coordinating conjunction or focus marker.

The linker converb can be augmented by *=ta(nnä)* (or variants of it)[47] in Muher, Chaha and Inor, or the noun *goy* 'time' in Kistane to emphasize the narrative clause-chaining function (Hetzron 1977:97–98):

(15) a. *ädare* *bəja-m* *nähä!* MUHER
lunch eat\JUSS.2SM-CNV come\JUSS.2SM
i. 'Come having eaten lunch (i.e. Don't come hungry)!'
ii. 'Eat (your) lunch and (then) come!'

b. *ädare* *bəjanta* *nähä!*
ädare bja-m=ta nähä
lunch eat\JUSS.2SM-CNV-AUG come\JUSS.2SM
'Eat your lunch and (then) come!'

[47] The origin and meaning of *=ta(nnä)* is unclear. Following Polotsky (1951), Hetzron (1977:97) assumes that it consists of **a(n)nä* – the Gunnän Gurage realization of the existential verb **hlw* – and the subordinating conjunction *t-* 'while'.

The short linker converb in (15a) is usually given an adverbial interpretation (i), but it can also have a sequential reading (ii). The augmented linker converb in (15b), in contrast, occurs almost exclusively in clause chaining function.

The short linker converb in Silt'e and Wolane (Eastern Gurage) is marked by the suffix *-ä*, which can be augmented by the suffix *-ani* in Wolane or *-āne* in Silt'e (Meyer 2006:131–132; Gutt 1997:928). According to Meyer (2006:266–268), the augmented linker converb in Wolane dominates in clause-chaining function, but the short linker converb in adverbial function. Hetzron (1972:94) reports the same functional split for Silt'e.[48] In contrast to Gunnän Gurage and Harari, the suffix *-ä* is not used as a linker in other contexts.

Chaha and Inor have an additional specialized converb, the so-called "t-converb" or "pseudo-gerund" (cf. Hetzron 1972:101–102; 1977:96–97; but also Völlmin 2010:85–86 for Gumer/Chaha; Suter 2008:203–211 for Inor). It is formed from the jussive templates (transitive $C_1C_2C_3$ or intransitive $C_1C_2äC_3$) in combination with the suffix *-ʲt(ä)* to which a subject index of perfective verbs is attached (cf. Goldenberg 1977:467).[49] The non-segmental element *ʲ* of the suffix triggers palatalization in the jussive base (cf. Hetzron 1975:18–20 for details), such as root-final *t' > c'* in the following example:[50]

(16) *t'əbc'ətəxʷ* *anwärxʷ*. GUMER (CHAHA CLUSTER)
t'bt'-ʲt-xʷ an-wär-xʷ
take\JUSS-CNV-1S NEG-go\PFV-1S
'I did not take (it) with me (lit. Having taken (it), I did not go)'
(Völlmin 2010:86)

---

[48] Gutt (1997:928–929), however, considers the short and augmented linker converbs to be freely interchangeably in Silt'e, while contrary to Meyer (2006:266–268), Hetzron (1972:94) reports such a free alternation for Wolane. These contradictions can only be resolved through further research. For the time being, the linker converbs in Wolane and Silt'e are considered functionally equivalent to their counterparts in Gunnän Gurage.

[49] Due to an assumed common suffix *-(ʲ)t(ä)*, Hetzron (1975) argues that the specialized converb in Chaha and Inor, the inflected converb in Argobba, and the inflected converb of biliteral roots, which lost their final consonant, in Amharic must have the same origin in the template $C_1äC_2iC_3$. Goldenberg (1977:467) provides convincing arguments against such an origin for Chaha and Inor: First, it is easier to derive the specialized converb from the jussive templates to which the suffix *-ʲtä* is attached, instead of assuming complex sound changes. Second, the specialized converb indexes its subject with the suffix set of perfective verbs, whereas the subject of the inflected converb is referred to by possessive suffixes.

[50] Cf. Hetzron (1975:17) for full paradigms in Ezha and Inor.

Specialized and linker converbs have the same functions, but are in complementary distribution to a large extent (cf. Völlmin 2010:86; Suter 2008:204). Specialized converbs modify negated main verbs, and predominantly combine with main verbs denoting an explicit future or hypothetical situation, and the verbal noun. Linker converbs are used with all other types of main verbs.

Tigre is the only ES language without a converb. Adverbial modifications in Tigre are expressed by various subordinate clauses; a sequence of situations is marked by the coordinating conjunction *ka-* 'and, so, then, therefore', which is prefixed to the final verb of the enumeration (cf. Raz 1983:89–93). According to Raz (1983:89), coordinated verbs can also convey an adverbial interpretation, as in (17):

(17) *ʔarwe* *ʔasħatte-nni* *ka-balʕa-ko.* TIGRE
snake entice\PFV.SJ.3SM-OJ.1S and-eat\PFV-1S
'The snake enticed me, so [lit. and] I ate [the apple].' (Raz 1983:89)

Table 8 summarizes the various converb types and their augments in ES:

Table 8 Converb types and their augments in ES

	CONVERB TYPE	AUGMENT	LANGUAGE
a.	No converb		Tigre
b.	Inflected converb		Gəʿəz, Tigrinya, Amharic, Argobba
c.	Linker converb *-ä*	*-ani/-āne*	Wolane, Silt'e
d.	Linker converb *-ma*	——	Harari
e.	Linker converb *-m*	——	Zay, Mesqan
		goj 'time'	Kistane
		=ta(nnä)	Chaha, Inor, Muher
f.	Specialized converb	——	Chaha, Inor

Given the structural similarities between the inflected converbs in Gəʿəz, Tigrinya, Amharic and Argobba, it seems that they indeed have a single source, i.e. the Gəʿəz template $C_1äC_2iC_3$, which was modified by language-specific constraints (cf. Hetzron 1975:17, in particular fn. 6). Hetzron (1972:110) favors a Proto-ES origin of the inflected converb, which then was lost in South ES. However, if the converb is a contact-induced category, then Tigre should have preserved the original situation, as it lacks this category at all. Consequently, the inflected converb might only be an innovation peculiar to Gəʿəz, from which it spread through language contact to the neighboring ES languages Tigrinya, Amharic and Argobba in central Ethiopia (see Figure 2(Adapted from Weninger 2011a:1123)).

Regarding the linker converbs and their augments, Hetzron (1972:111; 1977:97) also assumes a Proto-ES origin for them. Apparently, they were lost in the languages

with an inflected converb, but retained elsewhere. The linkers should stem from the Semitic coordinating suffix *-*ma*, which was retained as such in the Harari linker -*ma*. The linker -*m* in Zay and Gunnän Gurage lost the original final vowel, whereas the linker -*ä* in Silt'e and Wolane dropped the initial consonant. The augments =*ta(nnä)* and -*ani/-āne* might have developed from the existential auxiliary **hlw*. As the linker converb is lacking in Tigre as well, a Proto-ES origin is not really plausible. Moreover, the primary function of the augments is to distinguish between the narrative and the modifying interpretation of converbs, which presupposes a general converb. Thus, these augments are a later secondary development in southern Gunnän Gurage, which then spread through language contact.

4.5 Tense marking as a feature of nominal clauses

Tense marking, in particular the grammatical distinction between past and non-past,[51] is an obligatory feature of affirmative main clauses in Modern ES languages. Most commonly copulas and auxiliaries function as tense markers. The binary tense distinction most probably evolved in nominal clauses, i.e. clauses headed by a copula or an auxiliary, which do not denote a verbal situation but express a specific semantic relation between a subject and the predicate complement.

All ES languages differentiate morphologically between equative and existential clauses. Equative clauses express various relations between subject and predicate complement, like attribution, location, identity, etc., as in the following Amharic examples:

(18) a. *dabbo-w* *təkus* *n-äw.* AMHARIC
bread-DEF fresh COP-OJ.3SM
'The bread is fresh.'

b. *dabbo-w* *bä-sat'ən* *wəst'* *n-äw.*
bread-DEF LOC-box inside COP-OJ.3SM
'The bread is inside [the] box.'

c. *käbbädä* *astämari-je* *n-äw.*
Kebede teacher-POSS.1S COP-OJ.3SM
'Kebede is my teacher.'

Existential clauses, in contrast, simply indicate the general existence of the noun phrase in subject position. They can also have a locative expression as predicate complement, but often occur without it:

[51] Only a few languages, like Tigre, Chaha, Inor, also grammaticalized periphrastic constructions that explicitly denote future situations, which are not considered here.

(19) a. *dabbo* *allä.* AMHARIC
bread AUX.EXIST.3SM
'There is bread.'

b. *käbbädä* *ə-suk'* *wəst'* *allä.*
Kebede LOC-shop inside AUX.EXIST.3SM
'Kebede is (usually) in the shop [i.e. he is probably there now].'

Commonly, copulas and auxiliaries only inflect in a single conjugation, which is associated with non-past time reference, as in (18) and (19).[52] The distinction between equative and existential clauses is neutralized if the nominal clause refers to a past context, i.e. only a single past auxiliary is used in both clause types. As to Amharic, the equative clause (18a) and the existential clause (19a) uniformly mark past reference with the auxiliary *näbbär*:

(20) a. *dabbo-w* *təkus* *näbbär-ä* – *ahun* *därk'^{w}all.* AMHARIC
bread-DEF fresh AUX.PST-3SM now be_dry\CNV.3SM.AUX.EXIST/NPST
'The bread was fresh – (but) now it is dry/hard.'

b. *t'^{w}at* *dabbo* *näbbär-ä* – *ahun* *jät* *allä?*
morning bread AUX.PST-3SM now where AUX.EXIST.3SM
'Bread was there in the morning – where is it now?'

The copulas and the existential auxiliaries are not uniform in ES. Formally, they include bound morphemes of non-verbal origin, pronoun copulas, a zero copula, and auxiliary verbs that tend to be inflected only in the perfective conjugation. Table 9 provides on overview about the copulas and auxiliaries in equative clauses:

Table 9 Auxiliaries and copulas in affirmative equative main clauses

	COPULA/AUXILIARY	**LANGUAGE**
	I. NO TENSE	
(a)	Pronoun copula	Gəʿəz, Tigre
(b)	ø-copula	Gəʿəz
	II. NON-PAST TENSE	
(c)	*n*-OJ	Amharic, Argobba
	n-SJ (~ ø-OJ for 3PERS)	Wolane, Silt'e, Kistane, Mesqan, Muher, Chaha, Inor
(d)	*t*-OJ	Harari
(e)	*ʔə(j)*-OJ	Tigrinya
(f)	ø-copula	Zay

[52] In addition, they often have suppletive forms for negation and subordination.

	COPULA/AUXILIARY		LANGUAGE
		III. PAST TENSE	
(g)	**nbr*.PFV-SJ	(< √*nbr* 'reside')	Tigrinya, Amharic, Kistane, Argobba, Harari, Zay, Wolane, Silt'e
(h)	**bannä*-SJ		Mesqan, Muher, Chaha, Inor
(i)	*ʕal*.PFV-SJ	(< √*wʕl* 'spend the day')	Tigre
(j)	*kon*.PFV-SJ	(< √kwn 'be(come)')	Gəʿəz

The auxiliary verbs and copulas in Table 9 can be divided into three groups based on their tense value: (i) tenseless copulas (a–b), (ii) non-past copulas (c–f), and (iii) past auxiliaries (g–k). As shown in (c) and (d), the non-past copula *n-* and the past auxiliary **nbr* are dominating in ES. The Gəʿəz past auxiliary *kon-* in (j) is different from the other items in Table 9 because it is still a regularly inflecting verb.

The tenseless copulas (a–b) in Table 9 are restricted to Gəʿəz and Tigre (North ES). These copulas are unmarked for tense because they occur in clauses with past and non-past reference according to the context (Tropper 2002:221; Raz 1983:47):

(21) ZERO COPULA GEʿEZ

a. *məsle-nä* *(ø)* *ʔəgziʔabxer.*
COM-POSS.1P (COP) God

'God **is** with us.' [translated with non-past reference]

b. *wä-wəstet-u* *(ø)* *ʔaʕjənt.*
and-inside-POSS.3SM (COP) eye\PL

'And in it were eyes. (Dan 7,8)' [translated with past reference]

(Tropper 2002:214)

(22) PRONOUN COPULA GEʿEZ

a. *ʔantä* ***wəʔətu*** *krəstos.*
2SM 3SM/COP Christ

'You **are** Christ. (Mk 8,29)' [translated with non-past reference]

b. *wä-ʔəgziʔabxer* ***wəʔətu*** *kʼal.*
and-God 3SM/COP word

'And the word was God (Joh 1,1).' [translated with past reference]

(Tropper 2002:216)

In Gəʿəz, the pronoun copula is identical to the corresponding personal pronoun, whereas the 3SM copula/pronoun can be used as a kind of default copula for all persons. In Tigre, however, the copula and personal pronoun are only formally identical in the 1st/2nd person. The 3rd person pronoun copula is a phonologically reduced form of the corresponding pronoun (cf. Raz 1983:46; Crass et al. 2005:16–18). The 3SM copula *tu* in (23a), for instance, grammaticalized from the corresponding personal pronoun *hətu*:

(23) PRONOUN COPULA TIGRE

a. *hətu* *mən* *gəndaʕ* ***tu.***
3SM ABL Ginda COP.3SM

'He **is** from Ginda.' [translated with non-past reference] (Elias 2005:86)

b. *ʔabrahim* … *ʔənās* *ʕad* *takles* ***tu.***
Abrahim man Ad Takles COP.3SM
daʔam *mədər* *mansaʕ* … *nabbər* *ʕal-a.*
but country Mansa (3SG.M-)live\IPFV AUX.PST-3SM

'Abrahim … **was** a man of the Ad Takles. But he was living in the country of Mansa.' [translated with past reference] (Raz 1983:47)

Without context, clauses like (21a), (22a) and (23a) are interpreted as conveying true information at the moment of speech. Consequently, they are associated with present reference by default. In (23b), however, the Tigre copula gets a past interpretation due to the following sentence, which is overtly marked for past reference. Similarly, the conjunction *wä-* 'and' connects the Gəʿəz copula clauses (21b) and (22b) with the previous discourse context, which also refers to the past.

Tigre and Gəʿəz can also overtly mark equative clauses for past reference. Tigre uses the past auxiliary *ʕal-* (cf. (i) in Table 9), which grammaticalized from the root √*wʕl* 'spend the day' (Leslau 1945a:7 fn. 35; Goldenberg 2013:218), but only inflects in the perfective conjugation as auxiliary (Raz 1983:64):

(24) *hətu* *ħāt'ər* *ʕal-a.* TIGRE
3SM brave AUX.PST-3SM

'He was a brave man.' (Raz 1983:47)

Gəʿəz optionally indicates past tense by the perfective base *kon-* 'was':

(25) *wä-kon-ä* *dək'ät-u* *ʕabij-ä.* GƎʿƎZ
and-be(come)\PFV-3SM fall-POSS.3SM great-ACC

'And its fall was great. (Mt 7,27)' (Tropper 2002:224)

Beside its use as past auxiliary, the verb √*kwn* 'be(come)' (cf. (j) in Table 9) is still a full verb in Gəʿəz, and as such lacks a specific time specification. Interestingly, it is predominantly preceded by the conjunction *wä-* 'and', as in (25), when referring to the past in copula clauses.

While past auxiliaries are optional in Gəʿəz and Tigre equative clauses, all other ES languages must obligatorily indicate past reference by the auxiliary elements (g) and (h) in Table 9, i.e. the element **bannä-* in all Gunnän Gurage languages except Kistane, or **nbr* in Transversal South ES (Amharic, Argobba, Harari, Zay, Wolane, Silt'e) but also in Kistane (Gunnän Gurage), and Tigrinya (North ES).

Regular verbs from the root √*nbr* 'reside, live' exist in all ES languages (Leslau 1991:384; Leslau 1979a:374–375). Their form may also differ to a certain extent from the past auxiliary **nbr* that grammaticalized from the same root, but only inflects in the perfective conjugation. The consonant *b* of the root √*nbr* is not stable but often gets weakened or deleted in either the auxiliary or the respective regular verb. In Eastern Gurage and Harari, the original *b* is deleted in the past auxiliary yielding *nār-* in Silt'e, Zay and Harari (Leslau 1979a:665; Wagner 1997:496), but *när-* in Wolane (Meyer 2006:95), whereas the perfective base of the respective regular verb 'live' is still *näbär-*. The past auxiliary in Argobba has the uncommon vocalization *əmbär-* (Wetter 2010:207), which could indicate a formation from the jussive template $C_1C_2äC_3$ (cf. Section 4.3.2.1), but appears as *näwwär-* 'live' in the regular perfective conjugation, in which the plosive *b* is weakened to *w* (Wetter 2010:352). The plosive *b* is further weakened in the Amharic regular verb, which appears as *nor-* 'live' in the perfective base, while the corresponding past auxiliary *näbbär-* still retains the plosive. In Kistane, the regular verb for 'live' and the past auxiliary are identical in the perfective base, namely *näbbär-*.

The origin of the past marker **bannä-* in Gunnän Gurage is still enigmatic. It exclusively occurs in affirmative main clauses; in negation and subordination it is substituted by the respective perfective base from the root √*nbr* 'live'. Most probably, **bannä-* stems from a complex verb, in which the past/irrealis prefix *b-* was attached to the base of the subordinated existential auxiliary *°annä* (< √*hlw* 'exist') (cf. Hever 2010).[53]

The past auxiliary appears as *bannä-* in Muher and Mesqan, *banä-* in Chaha, and *ban(ä)-* in Inor (Leslau 1979a:664–665). Subjects are indexed by the suffix set of perfective verbs. Furthermore, the past auxiliary can be accompanied by clausal status markers, which do usually not co-occur with perfective verbs (Hetzron 1972:58, 113), as in the Muher example (26), in which the affirmative main clause marker *-u* is obligatorily attached to the past auxiliary *bannä*:

(26) *äga-we* *mam^{w}ä-ʔe* *banno.* MUHER
äga-we mam^{w}ä-k'e bannä-ä-u
water-DEF good-thing AUX.PST-3SM-MVM
'The water was good.'

[53] See also Leslau (1979b:143–144) and Hetzron (1977:107) for a summary of other reconstructions.

The obligatory auxiliary in nominal clauses with past reference also affected the tense value of the copulas (c)–(f) in Table 9, and the existential auxiliary in Table 10 below, which new only occur in nominal clauses with non-past reference. Due to their complementary distribution with the past auxiliary, the copula and existential auxiliary eventually acquired non-past as inherent tense value. The Muher equative clauses in (27), for instance, only refer to the present or future, but not to the past, as the copula *n-* stands in complementary distribution with the past auxiliary *bannä*:

(27) a. *äga-we* *mam^{w}ä-ʔe-n.* MUHER
water-DEF good-thing-COP.3SM[NPST]
'The water is good.' [*'The water was good.']

b. *nägä* *ärob-ən.*
tomorrow Wednesday-COP.3SM[NPST]
'Tomorrow is/will be Wednesday.'

Accordingly, even the zero copula in Zay is tense-marked, as it only occurs in nominal clauses with non-past reference, as in (28).[54]

(28) *ʔihī-j* *giddir-ən* *gār-ø-u.* ZAY
PRX-DEF big-FOC house-COP[NPST]-MVM
'This is a big house.' [*'This was a big house.']

In contrast, the zero copula in Gəʿəz in (21) and (25) is unmarked for tense because Gəʿəz did not grammaticalize past marking as an obligatory grammatical features of nominal clauses.

The non-past copulas *ʔə(j)-* in Tigrinya (Leslau 1941:73), *t-* in Harari (Beniam 2013:223), and *n-* elsewhere (for further details, see Hetzron 1972:79–82; Goldenberg 1977:478–481; Meyer 2007:183–187) most probably originate from non-verbal deictic elements (Goldenberg 2007:169).[55] Similar to regular verbs, the copulas obligatory index their subject. According to Hetzron (1972:80), the form of the subject index follows a clear geographical distribution: In a northern group, which encompasses Tigrinya, Harari, Amharic and Argobba, the object suffix set

[54] Contrary to Meyer (2002; 2005:337–341; 2014:244–245), who analyzes the suffix *-u* as declarative clause marker, Goldenberg (2007:170) considers it to be a copula.

[55] Rundgren (1955:193–194) suggests that the Tigrinya copula *ʔə(j)-* stems from a reduplicated personal pronoun. The elements **n* and **t* also function as focus markers (see Meyer 2007:188–189; Crass et al. 2005).

functions as subject index, whereas the southern group with Silt'e, Wolane, Kistane, Mesqan, Muher, Chaha, and Inor uses the suffix subject index of perfective verbs.[56]

Similar to equative clauses, existential clauses in Modern ES distinguish obligatory between past and non-past reference. Past in nominal clauses is generally marked by the auxiliaries (g)–(i) in Table 9. Non-past existential clauses, however, have an auxiliary element as head, which differs from that of the equative copulas in Table 9, as shown in the following table:

Table 10 Existential verb/auxiliaries in affirmative main clauses

	VERB	**LANGUAGE**
	I. NO TENSE	
(a)	Regularly inflected root √*hlw* 'exist'	Gəʿəz
	II. NON-PAST/PRESENT TENSE	
(b)	**hlw*.PFV-SJ (< √*hlw* 'exist')	Tigre, Tigrinya, Amharic, Argobba, Harari, Zay, Silt'e, Wolane, Inor
(c)	*jinä*-SJ	Kistane, Muher (*ädi*-bet)
(d)	*nänä*-SJ	Mesqan, Muher (*anä*-bet)
(e)	*närä*-SJ	Chaha

According to Tropper (2002:59–62, 120), the existential verb in Gəʿəz is a fairly regular Type B verb with root √*hlw* 'exist', which still inflects in the perfective, imperfective and jussive conjugations, as shown in (29), and also productively participates in several derivations, as in (30):

(29) a. *hallo* — hälläw-ä — exist\PFV-3SM — 'there is/he exists'
b. *jəhellu* — j-hellw — 3SM-exist\IPFV — 'he will exist'
c. *jähallu* — j-hällw — 3SM-exist\JUSS — 'he may exist' GƎʿƎZ

(Tropper 2002:120)

(30) a. *hallawi* 'existent, substantial' GƎʿƎZ
b. *həllawe* 'being, essence'
c. *həlläw* 'existent'
d. *həlluna* 'being'

(Tropper 2002:59, 61–62)

The root √*hlw* also rarely inflects in the imperfective conjugation in the other two North ES languages Tigre and Tigrinya. In Tigre, the imperfective *jəhellu* may denote future situations, but the verb *gab?a* 'become, happen' is more frequent in this

[56] Note that some languages of the southern group attach the object suffix instead of the copula *n-* to the predicate complement with certain subjects in the 3rd person (cf. Meyer 2007:184).

function (Raz 1983:49). In Tigrinya, *jəhellu* conveys a modal nuance of restricted probability (Voigt 1977:115; Praetorius 1871:327). Derivations from the root √*hlw*, as in (30), however, do not exist in Modern ES languages.

The existential verb in the perfective conjugation is unmarked for tense in Gəʿəz. It frequently has a non-past interpretation, as in (a), but also conveys a past reading in (b) (cf. Goldenberg 2013:216–217; but also Tropper 2002:183):[57]

(31) a. *hallo* *wäld* *zəjj-ä.* GE'EZ
exist\PFV.3SM boy PRX-ACC
'There is a boy here.' [with non-past reference]

b. *wä-hallo* *ʔəgziʔabxer* *məslä* *josef.*
and-exist\PFV.3SM God COM Joseph
'And God was with Joseph.' [with past reference] (Tropper 2002:223)

The ambiguity between non-past and past readings, as in (31), is typical for stative verbs in the perfective aspect. They are predominantly interpreted as present situations, but may also refer to the past, if this is indicated by the context.[58] With the above mentioned exception in Tigre and Tigrinya, the existential verb √*hlw* grammaticalized into a functional element that invariably occurs in the perfective conjugation and exclusively refers to situations in the present or future in Modern ES languages.

Most Gunnän Gurage languages have other existential auxiliaries, as shown in (c)–(e) in Table 10. These auxiliaries only occur in main affirmative clauses, use the suffix set of the perfective conjugation as subject index, and can combine with markers of clausal status. The origin of these auxiliaries is still unclear,[59] but they clearly represent an innovation unique to Gunnän Gurage and Gafat (for which, cf. Leslau 1945b:61–62).

5 PRIMACY OF VIEWPOINT ASPECT

The binary opposition between the so-called suffix conjugation (i.e. the perfective template and the suffix subject index) and the prefix conjugation (i.e. the imperfective template and the circumfix subject index) is fundamental for every ES

[57] Note that the existential verb in the perfective conjugation is also analyzed as a past marker (e.g. Bombeck 1997; Tropper 2002:223–224), which is unlikely vis-à-vis examples like (31). See also Section 6.3.

[58] Cf. Section 5.3, in particular footnote 63.

[59] See Leslau (1979b:457; 1956:79–80) and Rundgren (1955:277–278) for possible etymologies. It is highly unlike that these auxiliaries stem from the roots √*hlw* 'exist' or √*nbr* 'reside, live'.

language. In order to decide whether this opposition encodes aspect or tense, the functions of the two conjugations will be analyzed based on the typological framework described in Section 3. First, a summary of their basic functions is provided in Section 5.1. Then, the combinability of verbs in the prefix and suffix conjugation with overt temporal adverbials is examined in Section 5.2, while Section 5.3 is primarily concerned with the semantic generalization of the suffix conjugation.

5.1 Basic functions of the suffix and prefix conjugations

Often a mixture of aspect and tense values is used to define the functions of the suffix and prefix conjugation in individual ES languages. The suffix conjugation denotes a completed situation in the past – regardless whether there is an overt past context (marked by the adverb 'yesterday' in (32), or the conjunction *wä-* that links the situation in (33) to the preceding discourse about past events), or not, as in (34).

(32) *tərama* *bərtʃ'ək'o* *säbbär-ä.* MESQAN
yesterday glass break\PFV-3SM
'He broke a glass yesterday.' (Meseret 2012:44)

(33) […] *wä-ħajw-ä* *ʔaddām* *200* *wä-30* *ʕāmät.* GƎʿƎZ
and-live\PFV-3SM Adam 200 and-30 year
'And Adam lived 230 years. (Gen. 5,3)' (Weninger 2001:74)

(34) *ləǯ-u* *ərsas* *wässäd-ä.* AMHARIC
child-DEF pencil take\PFV-3SM
'The boy took a pencil.' (Leslau 1995:290)

The prefix conjugation, in contrast, is referred to as a present/future tense denoting situations that are still ongoing at the moment of speech (like a general present or a progressive action), as well as future and habitual situations. Thus, the actual reading of a verb in the prefix conjugation depends on the context:

(35) *jə-bäla-all.* AMHARIC
3SM-eat\IPFV-AUX.EXIST/NPST
i. 'He eats (i.e. started to consume food).' / ii. 'He eats (usually).' / iii. 'He is eating.' /iv. 'He will eat.' (Demissie 1988:623)

(36) *zäjnu* *jə-ʃäkkət.* MESQAN
Zeynu 3SM-work\IPFV
i. 'Zeynu works (currently).' (i.e. he is not unemployed)
ii. 'Zeynu (usually) works.' / iii. 'Zeynu will work.' (Meseret 2012:45)

Specific readings of the prefix conjugation can be emphasized by adverbials, like the adverb ‘tomorrow’ for future situations:

(37) a. *gesäm-ä* *nə-mäwwət.* GƎʿƎZ
tomorrow-ACC 1P-die\IPFV
‘Tomorrow we will die.’ (Weninger 2001:143)

b. *nägä* *tä-gäbe* *j-ar.* MESQAN
tomorrow ABL-market.ADS 3SM-go\IPFV
‘He will go to the market tomorrow.’ (Meseret 2012:45)

The prefix conjugation can also refer to durative or habitual situations in the past. In this function, it is obligatorily accompanied by the past auxiliary in Modern ES languages, as shown in (42c) and (43b) (see Section 6.1 for Gəʿəz).

5.2 Combinability with temporal adverbials

Tense and aspect as grammatical categories of a verb often encode relatively broad or inaccurate temporal relations or phases, which can be further specified by time adverbials, i.e. adverbs, as well as adverbial phrases and clauses. However, the temporal specification of adverbials must be compatible with the temporal framework that was established by the verb inflection. In general terms, tense-marked verbs are sensitive to deictic time adverbials, whereas aspect-marked verbs interact with adverbials expressing duration or habituality.

In Modern ES, main-clause verbs in the suffix conjugation do not combine with future time adverbials, but verbs in the prefix conjugation do:

(38) a. **nägä* *arräs-ä.* AMHARIC
tomorrow plough\PFV.3SM
Intended: ‘[As a matter of fact:] He will plough tomorrow.’

b. *nägä* *j-ars-all.*
tomorrow 3SM-plough\IPFV-AUX.EXIST/NPST
‘He will plough tomorrow.’

The incompatibility in (38a) could indicate that the verb in the suffix conjugation is marked for past tense, but not for the perfective aspect. Such a conclusion is unjustified, as the perfective aspect of action verbs is often temporally situated in the past. In all ES languages, furthermore, verbs in the suffix conjugation may actually refer to non-past situations and even co-occur with future time adverbials in certain subordinate clauses, in particular in the protasis of real conditional clauses:

(39) *nägä* *kä-**arräs-ä*** *bä-lelit* *jə-nnässall.* AMHARIC
tomorrow CND-plough\PFV-3SM LOC-night 3SM-get_up\IPVF. AUX.EXIST/NPST

'If he ploughs tomorrow, he will get up early in the morning.'

(40) *gejs* *bä-**mät'ä*** *dinät* *j-ob-eŋŋ-an.* WOLANE
tomorrow CND-come\PFV.3SM money 3SM-give\IPFV-OJ.1S-AUX.NPST

'If he comes tomorrow, he will give me money' (Meyer 2006:262)

The subordinated verbs in the suffix conjugation in (39) and (40) obtain their non-past interpretation from the main verb in the apodosis, which is either in the prefix conjugation or the jussive mood. In Gəʿəz, verbs in the suffix conjugation can even convey a future reading in relative clauses, which is impossible in Modern ES:

(41) *zä* ***bälʕa*** *səgā-je* *wä-**sätj-ä*** *däm-əje* *jä-hallu* *məsle-je.* GƎʿƎZ
REL eat\PFV.3SM meat-POSS.1S and-drink\PFV-3SM[REL] blood-POSS.1S 3SM-exist\JUSS COM-POSS.1S

'Who eats my flesh and drinks my blood shall be with me. (Joh 6,56)'

(Getatchew 1962:17)

As the subordinate verbs in the suffix conjugation in (39)–(41) are compatible with future reference, it is highly unlikely that they are marked for past tense.[60]

Past adverbials, like 'yesterday', co-occur with verbs in the suffix conjugation (42a), but also with verbs in the prefix conjugation (42c), which are obligatorily marked by the past auxiliary in Modern ES when referring to past situation (see Section 6.1):

(42) a. *miʃ-i* *tatʃenä* *mät'ä.* WOLANE
man-DEF yesterday come\PFV.3SM

'The man came yesterday.' (Meyer 2006:116)

b. *jimmä* *bä-hed-ä* *gən* *zəlam* *zäläm-ä.*
Jimma LOC-go\PFV-3SM[REL] time rain rain\PFV-3SM

'At the time he went to Jimma, it rained.' (Meyer 2006:277)

c. *tatʃenä* *tä-gäbet* *tə-l-hed* *zəlam* *jə-zälm* *när.*
yesterday ABL-market.ADS SUB-1S-go\IPFV rain 3SM-rain\IPFV AUX.PST

'Yesterday, when I was going to the market, it was raining.'

(Meyer 2006:262)

[60] Cross-linguistically, past-marked verbs frequently occur in irreal expressions, including hypothetical conditions referring to imagined situations in the future (cf., e.g. Dancygier & Sweetser 2005:56). The situation in ES, however, is different because the discussed constructions are real conditional clauses.

Verbs in the suffix conjugation describe past situations from a different point of view as compared to verbs in the prefix conjugation. The suffix conjugation in the Wolane example (42b), for instance, presents the raining as a matter of fact, while the prefix conjugation in (42c) emphasizes that the rain was lasting for some time.

Viewpoint differences can also be observed with adverbials denoting duration, as *läguddär wäʔət* 'for a long time' in Wolane, or *xʷett säʔatahi* 'about two hours' in Muher, which also combine with verbs in the suffix and prefix conjugation:

(43) a. *lä-guddär wäʔət bä-gondär k'er-ä.* WOLANE
DAT-long period LOC-Gondar stay\PFV-3SM

'He (as a matter of fact) stayed for a long time in Gondar.'

b. *lä-guddär wäʔət bä-gondär jə-ʔer när.*
DAT-long period LOC-Gondar 3SM-stay\IPFV AUX.PST

'He stayed for a long time in Gondar.' (Meyer 2006:116)

(44) a. *xʷett säʔat-ahi tägäddɛ-ä-m.* MUHER
two hour-AMOUNT sleep\PFV-3SM-CNV[PRS.PRF]

'He (as a matter of fact) slept for about two hours.'

b. *jə-bäʔa-nnə-tt.* *nəsa-nn!*
3SM-be_enough\IPFV-OJ.3SM-MVM raise\JUSS.2SM-OJ.3SM

'He slept for about two hours. It is enough for him. Wake him up!'

Even if modified by duration adverbials, the verbs in the suffix conjugation in (43a) and (44a) still present the situation in its entirety without internal structure. Such constructions often function as topic sentence, like (44a), which provides the background information for the subsequent assessment and order in (44b). The prefix conjugation in (43b), in contrast, emphasizes the continuity of the situation over a period of time. Such constructions are often followed by descriptions of events which occurred during that period.

Adverbials denoting habituality, i.e. the repetition of an action or state at various occasions,[61] only co-occur with verbs in the prefix conjugation, regardless whether they refer to situations in the past (45), or present (46). The respective phrase for *all time* is frequently used as habitual adverbial 'always' in ES, but also the repetition of temporal expressions, as in (46):

[61] This definition excludes repetition of an action at the same occasion, i.e. the iterative or frequentative. In ES, the iterative/frequentative are derived stems, in which verbs regularly inflect in the suffix and prefix conjuation.

(45) *hulläm-gi* *jä-tämäsgän-ən* *gār* *jə-hīd-ən* *nār-uhu.* */ *hīd-hu-n-u* ZAY
all-time GEN-Temesgen-ACC house 1S-go\IPFV-FOC AUX.PST-1S.MVM go\PFV-1S-FOC-MVM

'I always went to Temesgen's house.' (Meyer 2005:183)

(46) *asfa* *ənnən-ge* *barbätt* *barbätt* *sä?at* *jə-dgädde-w.* */ *tägäddɛ-ä-m* MUHER
Asfa all-time LOC.four LOC.four hour 3SM-sleep\IPFV-MCM sleep\PFV-3M-CNV[PRS.PRF]

'Asfa always sleeps at four o'clock (i.e. at 10 pm).'

The exclusion of the suffix conjugation from habitual constructions is a strong indicator for an aspect system, as only verbs in the perfective aspect – but not in the past tense – are incompatible with habituality.

5.3 Semantic generalization of the suffix and prefix conjugations

Stative and dynamic verbs in the suffix conjugation have different temporal implications in all ES languages. A past reading is only typical for action verbs in the suffix conjugation, as in (32)–(34), while stative verbs have predominately a present reading:

(47) *t'äggäb-ku.* AMHARIC
be_satisfied\PFV-1S

'I am satisfied.' (Leslau 1995:290)

(48) *nässāħ-ku* *ʔəsmä* *ʔangäś-kəwo* *lä-sāʔol.* GƎʿƎZ
regret\PFV-1S because make_king\PFV-SJ.1S.OJ.3SM DAT-Saul

'I regret that I made Saul king.' (Reg 15,11) (Weninger 2001:75)

Stative verbs in the suffix conjugation can also have a past interpretation, but usually only in overtly marked past contexts, as with the medio-passive verb in (49b):

(49) a. *ədʤ-e* *täsäbbär-ä.* AMHARIC
hand-POSS.1S be_broken\PFV-3SM

i. 'My hand is broken.' (ii. 'My hand was broken.')

b. *ja* *gize* *ədʤ-e* *täsäbbär-ä.*
DST time hand-POSS.1S be_broken\PFV-3SM

'That time, my hand was broken.'

Stativity can be defined through the lexical aspect of a simplex or derived verb, i.e. it is inherent part of its semantics. As can be seen in (47)–(49), these verbs index their subject with the regular suffix or circumfix sets. Moreover, stativity can be expressed through a morphosyntactic construction from stative and dynamic verbs with two obligatorily argument indexes. Their expletive subject is invariably marked by the 3SM subject index, which is followed by a variable object index to encode the respective experiencer of the verbal situation, as in (50):

(50) *gäbba-ɲɲ.* AMHARIC
enter\PFV.SJ.3SM-OJ.1S
'I understand [lit. It entered me].' (Leslau 1995:290)

Muher and Amharic (and probably also other ES languages) have (at least) two semantically and morphologically peculiar stative verbs, namely √*brd* 'be(come) cold' and √*mwk'* 'be(come) hot'. When denoting the air or weather condition, i.e. 'be cold' or 'be hot', they are total-stative verbs whose semantics does not including a beginning or an ending phase. These weather verbs are odd morphologically because they are exclusively indexed with an expletive 3SM subject, and only inflect in the prefix conjugation, but not in the suffix conjugation:[62]

(51) a. *jə-bärd-u.*
3SM-be_cold\IPFV-MVM
'It is cold.'

b. *jə-bärd* *banno.*
3SM-be_cold\IPFV AUX.PST.3SM.MVM
'It was cold.'

c. **bärräd-ä-m.*
be_cold\PFV-3SG.M-CNV[PRS.PRF]

(52) a. *jə-m^{w}ä?-u.* MUHER
3SM-be_hot\IPFV-MVM
'It is hot.'

b. *jə-m^{w}ä?ə* *banno.*
3SM-be_hot\IPFV AUX.PST.3SM.MVM
'It was hot.'

c. **m^{w}ä?-ä-m.*
be_hot\PFV-3SG.M-CNV[PRS.PRF]

The total-stative weather verbs may also function as inchoative-stative verbs denoting a temperature change of entities other than the weather. In this case, the roots √*brd* 'be(come) cold' and √*mwk'* 'be(come) hot' can be inflected in the suffix conjugation, but are either accompanied by an overt subject, as in (53a), or used in an experiencer construction, as in (53b):

[62] Another most probably total/inchoative-stative verb in ES is the respective verb for 'seem, appear', e.g. *mässälä* in Amharic. In contrast to the weather verbs, its inflectional constraints are less clear so that further research is essential.

(53) a. *ʤisma-ʷhta* *bärräd-ä-m.* MUHER
body-POSS.3SM become_cold\PFV-3SM-CNV[PRS.PRF]

'His body has cooled down/is cold [after a fever attack].'

b. *mʷä?em.*
mʷäk'-ä-j-m
become_hot\PFV-SJ.3SM-OJ.1S-CNV[PRS.PRF]

'I feel hot [lit. It became hot to me].'

In examples (51) and (53), a single root encodes two different lexical aspects, namely total-stative (weather condition verb), as well as inchoative-stative (verb denoting a temperature change). These two lexical aspects are formally distinguished from each other: Total-stative verbs only inflect in the prefix conjugation, but inchoative-stative verbs in the prefix and suffix conjugations.[63] Such a constraint in verb inflection is characteristic for languages with viewpoint aspect (cf. Sasse 1991:12; but also Bybee, Perkins & Pagliuca 1994:93) – but not for tense, which is indifferent to the lexical aspect of a verb. As total-stative verbs denote a situation that is devoid of any possible boundary, they are incompatible with the perfective aspect whose function it is to emphasize just the inherent boundary of a situation. Inchoative-stative verbs, in contrast, include an inherent starting point, which demarcates the state denoted by the verb semantics from the preceding situation. Consequently, inchoative-stative verbs do inflect in the perfective aspect, which then emphasizes the transformation phase at their initial boundary.

Furthermore, the time implications of total- and inchoative-stative verb differ in the prefix conjugation. While total-stative verbs, as in (51a) and (52a), have a present

[63] It seems that the lack of any core argument, i.e. subject and object as well, is the most characteristic feature of total-stative verbs. As the subject index is an obligatory morphological part of verb inflection, total-stative verbs are invariably indexed for a 3SM subject – the default form for expletive subjects. Inchoative-stative verbs with such an expletive subject, in contrast, obligatorily mark an additional experiencer by the object index. Furthermore, a non-explitive subject is incompatible with total-stative verbs. If a subject has an actual non-default referent, as, e.g. in (53a), total-stative verbs change mechanically into verbs with the inchoative-stative lexical aspect. As a result, the lexical aspect of the the existential (auxiliary) verb √*hlw* must be inchoative-stative – such as 'get into existence' – because its subject is mandatorily an actual entity in discourse. Only copulas or related elements of non-verbal origin (see Section 4.5), which express a total-stative relation between subject and predicate complement, may inflect with the subject index of verbs in the suffix conjugation. Thus, if the lexical aspect of the existential root √*hlw* is not inchoative-stative, it could represent an element of non-verbal origin, which first was grammaticalized as existential construction by combining it with the suffix subject index. Then, it was reinterpreted as a triliteral verb in the suffix conjugation, and subsequently treated like a regular triliteral root, which can also inflect in other conjugations, or serve as input for derivation.

(i.e. non-future) reading, inchoative-stative verbs refer to a future (i.e. non-present) state:

(54) *ədʒ-e* *jə-ssäbbär-all.* AMHARIC
hand-POSS.1S 3SM-be_broken\IPFV-AUX.NPST
'My hand will break.' (but not: *'My hand is broken.')

As with the dynamic verbs in (35) and (36), stative verbs in the prefix conjugation can also be interpreted with a habitual reading.

In specific pragmatic contexts, which are not fully identical in all ES languages, a main-clause verb in the suffix conjugation may refer to absolutely certain actions in the near future. Most frequently, the verbs for 'come' and 'go' may convey such an optional meaning in the suffix conjugation, i.e. they may express that the respective action is about to be realized immediately, as in the following Amharic examples:[64]

(55) a. *mätt'a-hu* AMHARIC
come\PFV-1S
i. 'I came.' [default meaning]
ii. 'Here I am!' [said while just meeting the addressee]
iii. 'I will be back in a minute!' [said while just leaving the addressee]
iv. 'I will be right there!' [said while talking to the addressee on phone]
(cf. Leslau 1995:290)

b. *jih-äw* *awtobus* *mätt'a!*
PRX-OJ.3SM bus come\PFV.3SM
'Here comes the bus!' [said while pointing at the approaching bus]
(cf. Leslau 1995:290)

(56) *hed-ku* AMHARIC
go\PFV-1S
i. 'I went (away).' [default meaning]
ii. 'I am leaving!' [said immediately before departure] (cf. Leslau 1995:290)

In Amharic, verbs in the suffix conjugation are also sporadically used to indicate that a certain situation in the immediate future is absolutely inevitable (cf. Hartmann 1980:189):[65]

---

[64] These two verbs also have the same connotations in Transversal South ES, Mesqan, Kistane, and Muher. For the remaining ES languages, no data are available.

[65] Poláček (1972:218) calls this function of the suffix conjugation "futurum instans", and Getatchew (1962:17) "definite future".

(57) *wajjo-ll-əh* *zare* *mot-əh!* AMHARIC
INTJ.woe-DAT-OJ.2SM today die\PFV-2SM

'Woe to you, you will die today!' (Getatchew 1962:17)

Weninger (2001:96–97) provides examples for a similar use of the suffix conjugation in Gəʿəz, which he considers a stylistic feature of prophetic speech ("perfectum propheticum"), or a rhetoric device to refer to future situations with certainty:

(58) *zäʔənbälä* *tə-läd* *ʔəntä_wəstä* *māḥməm* ***wä-wäläd-ät*** *täbāʕt-ä.* GƎʿƎZ
without 3SF-give_birth\JUSS through labor_pain and-give_birth\PFV-3SF male-ACC

'Before she shall give birth through labor pain, she will have borne a male child. (Isa 66,7)' (Weninger 2001:97)

Gəʿəz also employs the suffix conjugation in wishes, which refer to future situations:

(59) ***räkäb-ku*** *s'äggā* *bä-k'ədme-kəmu* *wä-kʷəllo* *zä-tə-bəl-u* *ʔə-hub.* GƎʿƎZ
find\PFV-1S grace LOC-in_front-POSS.2PM and-all REL-2PM-say\IPFV-PM 1S-give\IPFV

'Let me find grace from you, and all what you shall say (to me) I will give. (Gen 34,11)' (Weninger 2001:100)

Moreover, the suffix conjugation of performative verbs is interpreted with present time reference in Gəʿəz (Weninger 2001:76):[66]

(60) *wä-**wähab**-ku-kəmu* *kʷəllo* *wəstä* *ʔəde-kəmu!* GƎʿƎZ
and-give\PFV-SJ.1S-OJ.2PM all into hand-POSS.2PM

'Everything I give into your hands! (Gen 9,2)' (Weninger 2001:79)

In conclusion, the time inference of a verb in the prefix or suffix conjugation clearly depends on its lexical aspect. In particular, stative and dynamic verbs have systematically varying time implications in the two conjugations. This type of variation is untypical for languages with tense as primary inflectional category of verbs, but common to aspect languages. Hence, the primary function of the prefix and suffix conjugations is to mark viewpoint aspect. The prefix conjugation

[66] The preferred conjugation of performative verbs and their temporal interpretation still needs to be researched in other ES.

encompasses several sub-readings, like duration, progressivity, continuity, or habituality, which are typical for the imperfective aspect. As the prefix conjugation expresses these readings for past and in non-past contexts, it is unmarked for a specific time reference. Although the suffix conjugation is tightly associated with past contexts, it cannot refer to progressive or habitual situations in the past. Thus, it does not stand in a tense opposition to the prefix conjugation, but marks a contrastive viewpoint, i.e. the perfective aspect. Moreover, the suffix conjugation may optionally express the speaker's certainty that a situation will be realized in the near future.

6 TENSE IN VERBAL CLAUSES

Inflected verbs combine with tense-marked copulas and auxiliaries (cf. Section 4.5) into complex constructions, in which aspectual information is specified with an explicit time reference. In Modern ES, tense marking most commonly occurs in main clauses, in which it became an obligatory part in the inflection of imperfective verbs, or of grammaticalized constructions for a specific phasal aspect, e.g. the continuous, as well as the perfect.

6.1 Tense in main-clause imperfective verbs

Main clauses with a plain imperfective verb are unmarked for tense in Gəʿəz. Depending on the context, they can have a non-past reading, like (61a), or a past interpretation, as in (61b):

(61) a. *ʔəmənnä* *ʕəs'* *zä-jə-färri* *zä-wəstä* *gännät* ***nə-bälläʕ.*** GƎʿƎZ
ABL plant REL-3SM-flourish\IPFV GEN-inside garden 1P-eat\IPFV

'We eat from the trees which flourish in the garden.' (Weninger 2001:135)

b. *lä-zati* *wälätt-əjä* *ʔastäwāsəb-kəw-ā* *lä-säbʕat-u* *ʕəd-äw* –
DAT-PRX.SF girl-POSS.1S give_in_marriage\PFV-SJ.1S-OJ.3SF DAT-seven-POSS.3SM man-PL

wä-ʔəmkämä *boʔ-u* *xabe-hā* ***jə-mäwwət-u*** *bä-lelit.*
and-when enter\PFV-3PM ALL-POSS.3SF 3PM-die\IPFV-PM LOC-night

'This daughter of mine, I gave her in marriage to seven men; and when they went to her they died just in the night.' (Weninger 2001:112)

The past reading of imperfective verbs in Gəʿəz can optionally be emphasized through an additional auxiliary. Originally, only the past auxiliary of nominal clauses, i.e. *kon-*, fulfilled this function, but later also *näbär-* occurred in verbal clauses:

(62) a. *wä-ʔanä* *henok* ***kon-ku*** ***ʔə-barrək-o*** GEʿEZ
and-1S Henok be(come)\PFV/AUX.PST-1S SJ.1S-praise.IPFV-OJ.3SM
lä-ʔəgziʔ *ʕābij* *wä-lä-nəguś-ä* *ʕaläm.*
DAT-lord big and-DAT-king-LIN world
'I, Henok, used to praise the great lord and king of the world. (Hen 1,3)'
(Tropper 2002:197)

b. *wä-ʔəm-həjjä* *ħor-ä* *wəstä* *gädam* *wä-**näbär-ä***
and-ABL-DST go\IPFV-3SM inside wilderness and-reside\PFV/AUX.PST-3SM
jə-ssessäj *ʔahmalat-ä.*
3SM-feed_on\IPFV herb.PL-ACC
'From there, he went into the wilderness and (used to) fed on herbs.'
(Weninger 2001:303)

A form of **nbr* is the most frequent past auxiliary in Modern ES (cf. Table 9), but it is only attested in relatively recent Gəʿəz texts. Weninger (2001:334–335), therefore, assumes that the use of *näbär-* as past auxiliary is the result of language contact through bilingual scribes in Gəʿəz.

Contrary to Gəʿəz, tense marking is compulsory on imperfective main-clause verbs in Modern ES. If an imperfective verb refers to a past situation in these languages, it must co-occur with the respective past auxiliary of nominal clauses (cf. Section 4.5), as in the following examples:

(63) a. *k'äs* *ʔilom* *jə-səħəx'-u* *näbär-u.* TIGRINYA
IDPH.quiet say\CNV.3PM 3PM-laugh\IPFV-PM AUX.PST-3PM
'They laughed quietly (for some time).' (Voigt 1977:368)

b. *wa-ʔälli* *ʔəb* *zaban* *badir* *kəl* *ʔəwān* TIGRE
and-PRX LOC time old all time
ø-wadd-wo *ʕal-aw.*
SJ.3PM-do\IPFV-PM-OJ.3SM AUX.PST-3PM
'And they always used to do this in the old times.' (Raz 1983:71)

c. *(dərä)* *nabdi* *sin* *jəsäbrəm^{w}* *banno.* MUHER
dərä *nä-abdi* *sin* *j-säbr-m^{w}* *bannä-u*
in_the_past APL-Abdi demitasse 3PM-break\IPFV-PM AUX.PST.3SM-MVM
'(In the past) Abdi and his companions used to break small coffee cups.'

The subjects of the imperfective verb and the past auxiliary are co-referential in North ES, as in (63a–b), in which both verbs inflect with the 3PM subject index. In most South ES languages, however, the past auxiliary totally lost the subject index, as in the Wolane example (42c), or is indexed for an invariable 3SM subject, as in (63c). The past auxiliary is commonly formed form the perfective base. In Tigrinya, however, it may occur in the converb base, i.e. *näjr-u* AUX.PST\CNV-3SM, or in the

perfective base, as found in (63a) (Voigt 1977:368). Despite differences in details, the past imperfective in Modern ES is marked through the same formal construction.

Moreover, imperfective main-clause verbs in Modern ES are also obligatory marked for non-past reference. Transversal South ES, i.e. Amharic, Argobba, Harari and Eastern Gurage, overtly marks non-past reference by the existential auxiliary (see Section 4.5) on affirmative imperfective verbs in main clauses:

(64) a. *zuhur* *ø-əsseggäd-äll.* ARGOBBA
midday_prayer 3SM-be_prayed\IPFV-AUX.EXIST/NPST
'One is praying the midday prayer.' (Wetter 2010:157)

b. *ʔahu* *ʔēnä-ā* *jə-bälə-n-ā-hu.* ZAY
now lunch-POSS.1S 1S-eat\IPFV-FOC-AUX.EXIST/NPST-1S.MVM
'Now, I eat my lunch.' (Meyer 2005:184)

The existential auxiliary is uniformly derived from the perfective conjugation of the root √*hlw* 'exist' in Transversal South ES. Due to language-specific historical developments including phonetic reduction, the form of the auxiliary may differ between individual languages, as in (64) between Argobba and Zay, or between nominal and verbal clauses of the same language. Its grammaticalization into a tense marker also triggers the gradual loss of subject indexing, which commonly starts with 3SM subjects, as in (64a), but is retained with other subjects, in particular with the 1S, as in (64b) or (65a).[67] It seems that the existential auxiliary originally emphasized the continuous reading of the imperfective aspect, as in Gəʿəz. Later it also was associated with present time reference, as in Tigre and Tigrinya, so that the combination of imperfective verb and existential auxiliary grammaticalized into a construction for the present-continuous (see Section 6.2). In Transversal South ES, the semantics of this construction was generalized to the marker of the non-past imperfective by disassociating it from the continuous phasal aspect.[68]

The overt marking of non-past reference is restricted to affirmative imperfective verbs in main clauses; negated imperfective verbs lack such an overt marker:[69]

---

[67] See Hetzron (1972:39–40) for details, but also Voigt (1977:338–341).

[68] See Meyer (2005:150 fn. 100) for details of such a grammaticalization in Amharic.

[69] In most subordinate clauses, imperfective verbs also lack an overt tense marker – with the exception of relative clauses. In Eastern Gurage (i.e. Zay, Silte, and Wolane) and Harari, affirmative imperfective verbs are always accompanied by a time auxiliary in relative clauses (Meyer 2005:176–177; 2006:126–127; Gutt 1997:929; Beniam 2013:239–240). In other Modern ES languages, imperfective verbs optionally co-occur with the past auxiliary in relative clauses.

(65) a. *al-ə-kk'emmät' –* *ø-ʃakk'əl-əllä-w.* ARGOBBA
NEG-1S-sit_down\IPFV[NPST] 1S-be_in_a_hurry\IPFV-AUX.EXIST/NPST-1S
'I do not sit down, I am in a hurry.' (Wetter 2010:156)

b. *ʔējä* *bunä* *bäk'är* *ʃāj* *ʔa-l-sätʃ-u.* ZAY
1S coffee except tea NEG-1S-drink\IPFV[NPST]-MVM
'I drink coffee but not tea.' (Meyer 2005:281)

Despite the lack of the existential auxiliary as non-past marker, the negated imperfective verbs in (65) cannot refer to past situations in main clauses, as shown in the following example:

(66) a. *(hulle / ahun)* *ənʤära* *bä-wät'* *a-j-wädd-əmm.* AMHARIC
(always now) injera LOC-sauce NEG-3SM-love\IPFV[NPST]-FOC
'He does not like injera with sauce (all the time / now).'

b. **balläf-ä-w* *gize* *ənʤära* *bä-wät'* *a-j-wädd-əmm.*
LOC.[REL]pass\PFV-3SM-DEF time injera LOC-sauce NEG-3SM-love\IPFV[NPST]-FOC
Intended: 'He did not like injera last time.'

c. *balläf-ä-w* *gize* *ənʤära* *bä-wät'* *a-j-wädd-əmm* *näbbär.*
LOC.[REL]pass\PFV-3SM-DEF time injera LOC-sauce NEG-3SM-love\IPFV-FOC AUX.PST
'He did not like injera last time.'

Without context, the negated imperfective in (66a) only refers to a present situation. The respective reading can optionally be emphasized through temporal adverbials. The combination of the negated imperfective verb and the past adverbial in (66b), however, is ungrammatical, unless the verb is overtly marked by the auxiliary *näbbär* for past reference, as shown in (66c). Such a distribution suggests that non-past is a covert tense feature of negated imperfective verbs in main clauses, which is marked by a zero morpheme as functional counterpart to the overt past auxiliary. Similar to the zero copula in Zay (cf. Section 4.5), the obligatory use of a past auxiliary caused the exclusive non-past reference of imperfective verbs without it, i.e. the functional opposition past vs. non-past imperfective is formally manifested in the opposition past auxiliary vs. non-past zero morpheme.

In a similar way, even affirmative imperfective main-clause verbs are covertly marked for non-past reference in Tigre, Tigrinya, and in Gunnän Gurage, as shown in the following Muher data:

(67) a. *abdi* *sin* *jə-säbr-u.* MUHER
Abdi demitasse 3SM-break\IPFV[NPST]-MVM

'Abdi breaks/will break/is breaking/usually breaks small coffee cups.'

b. **dərä* *abdi* *sin* *jə-säbr-u.*
in_the_past Abdi demitasse 3SM-break\IPFV[NPST]-MVM

Intended: 'In the past, Abdi used to break small coffee cups.'

The verb in (67a) conveys several readings associated with the imperfective aspect, but exclusively in the non-past, as can be deduced from (67b), in which the additional time adverb renders an ungrammatical sentence. However, (67b) becomes grammatical if the imperfective verb is accompanied by the past auxiliary, as shown in (63c) above.[70]

In Modern ES, covert non-past marking is a typical feature of imperfective verbs in main clauses, but less common in subordination. In circumstantial adverbial clauses, for instance, the subordinated imperfective verb is devoid of any time reference:

(68) a. *käbbädä* *nägä* *t-i-bäsa* *mäto* *bərr* *t-eb-ənn-ətt.* MUHER
Kebede tomorrow when-3SM-come\IPFV hundred birr 2SM-give\IPFV-OJ.3SM[NPST]-MVM

'When Kebede comes tomorrow, you will give him hundred birr.'

b. *käbbädä* *tamaŋŋa* *t-i-bäsa* *säddäb-hu-nn-əm.*
Kebede yesterday when-3SM-come\IPFV insult\PFV-SJ.1S-OJ.3SM-CNV[PRS.PRF]

'When Kebede came yesterday, I insulted him.'

The imperfective verb *tibäsa* in (68) has a non-past reading in (a), but a past reading in (b). Thus, it is not restricted to a specific time reference, but adjusts its tense interpretation to the context provided by the verb in the main clause. That means this type of subordinate imperfective verbs in Modern ES is functionally identical to main-clause imperfective verbs in Gəʿəz. Main-clause imperfective verbs in Modern ES, however, differ from Gəʿəz because they are obligatorily marked for past or non-past reference, i.e. they acquired tense as an additional grammatical category.

6.2 Tense and the continuous phasal aspect

Following Comrie (1976:12), the term *continuous* designates grammatical constructions that mark situations denoted by stative and dynamic verbs as uninterrupted and ongoing. If such a construction is restricted to dynamic verbs, it is

[70] The clausal status marker *-u* does not function as tense marker in (67), as it also occurs with the past auxiliary in (63c) (cf. Meyer 2014:242–244 for details).

called *progressive*. Basically, the continuous is one of the readings associated with the imperfective aspect (see, e.g. (67) for Muher). When expressed through a separate periphrastic construction, the continuous phasal aspect becomes an independent grammatical category, which often is an optional variant to the regular imperfective verb, as in the Amharic example (35), but may also suppress the continuous reading with an imperfective verb, as in the Mesqan example (36).

The continuous phasal aspect is marked by a variety of morphosyntactic constructions in ES. In Gəʿəz, the existential verb in the perfective aspect, i.e. *hallo*~*halläw-*, can be combined with an imperfective verb to emphasize the continuous reading. This construction does not have a specific time reference, as shown in (69) (cf. Weninger 2001:267–270; Tropper 2002:197–198):

(69) a. *hallo* *johannəs* *j-āt'ämmək'* *bä-gädām.* GƎʿƎZ
AUX.EXIST.3SM John 3SM-baptize\IPFV LOC-desert
'John used to baptize in the desert. (Mk 1,4)' (Tropper 2002:198)

b. *jə-s'əħəf-u* *halläw-u* *kʷəllo* *xāt'iʔat-ä-kəmu* *bä-kʷəllo* *ʕəlät.*
3PM-write\IPFV-PM AUX.EXIST-3PM all sin.PL-ACC-POSS.2PM LOC-all day
'One writes down all your sins (in heaven) at each day. (Hen 104,7)' (Tropper 2002:198)

In Tigre and Tigrinya, a main-clause imperfective verb can also be modified by the existential auxiliary:

(70) a. *wa-ʔəb* *la-gədʔo* *ʔasək* *jom* *tə-majət* *hallət.* TIGRE
and-GEN DEF-Ged'o until today 3SF-die\IPFV AUX.EXIST/NPST.3SF
'And until today they [lit. she] die of the Gədʔo [disease].' (Raz 1983:71)

b. *maj* *jə-harrəm* *ʔallo.* Tigrinya
water 3SM-rain\IPFV AUX.EXIST/NPST.3SM
'It is raining (now).' (Voigt 1977:344)

As in Gəʿəz, the Tigre and Tigrinya constructions in (70) emphasize the continuous phasal aspect of the imperfective verbs, but – unlike Gəʿəz – they also convey a non-past reading, i.e. they specifically denote the present continuous (Raz 1983:71; Voigt 1977:337–338). There is no formal equivalent for the past continuous in Tigre and Tigrinya; it is only one possible reading of the past imperfective.

The North ES present continuous grammaticalizes into a general non-past imperfective in Transversal South ES (see Section 6.1). Consequently, the continuous is not expressed by uniformly in these languages. In Eastern Gurage, for instance,

Silt'e has no formal continuous construction, but Zay marks the progressive by combining the existential auxiliary with a circumstantial clause headed by an imperfective verb (Meyer 2005:186–187), as in (71a). In Wolane, another Eastern Gurage language, the progressive is marked through an equative clause containing a verbal noun in a locative phrase as copula complement, as in (71b), to which optionally a relative clause with the existential auxiliary can be added (Meyer 2006:121–122). Amharic also expresses the progressive through an equative clause, as in (71c), but here the copula complement is a circumstantial adverbial formed from a perfective verb marked by the distributive prefix *əjjä-* (Leslau 1995:664–665, 148):

(71) a. *tī-l-bälə-n* *ʔalohu.* ZAY
ti-l-bälə-n ʔalä-h^{w}-u
SUB-1S-eat\IPFV-FOC AUX.EXIST/NPST-1S-MVM
'I am eating (lit. while I eat, I exist).' (Meyer 2005:186)

b. *bä-t'af-ot* *där-ən* – *(jalä).* WOLANE
LOC-write\JUSS-VN top-COP.3SM REL-AUX.EXIST/NPST.3SM
'He is writing (lit. He is at the topside of writing – the he exists).'
(Meyer 2006:122)

c. *əjjä-bälla-h^{w}* *n-äw.* AMHARIC
DIST-[REL]eat\PFV-1S COP-3SM
'I am eating.' (Leslau 1995:664)

The Amharic-type progressive is also found in Argobba and Harari. These two languages have an additional progressive construction based on the existential clause. In Argobba, the existential auxiliary is accompanied by a verbal noun, which denotes the ongoing situation (Wetter 2010:161–162), whereas in Harari it is a verbal noun or a locative expression based on a relative clause (Beniam 2013:200, 204). Transversal South ES can also refer to a past progressive by substituting the existential auxiliary or the copula by the past auxiliary.

In Outer South ES, the continuous/progressive is simply a sub-reading of the imperfective aspect in Muher, Chaha and Inor. Only Kistane and Mesqan grammaticalized a construction for the progressive (Bedilu 2010:112; Meseret 2012:55),[71] which is formally identical to Wolane (cf. (71b) above). That means it is marked through an equative clause with a locative expression as copula complement in which the verbal noun denotes the progressing situation, as in (72):

[71] Actually, Bedilu (2010:112) calls it progressive/continuous, but only provides an example with an action verb. Therefore, I opt for Elizabeth's (2012:45) analysis as a progressive.

(72) a. *bä-wä-mt'a* *lalä-n.* KISTANE
LOC-VN-come\JUSS top-COP.3SM
'He is coming (at the moment).' (Bedilu 2010:112)

b. *zäjnu* *bä-wä-säkkət* *fʷär-u.* MESQAN
Zeynu LOC-VN-work\JUSS top-COP.3SM
'Zeynu is working.' (Meseret 2012:55)

In past progressive situations, the copula in (72) is substituted by the past auxiliary.

Mesqan has an additional progressive construction, which exclusively refers to non-past situations (cf. Meseret 2012:53–54):

(73) *huti* *ambässa* *jə-k'ät'r-u.* MESQAN
3SM lion 3SM-kill\IPFV-COP.3SM
'He is killing a lion.' (Meseret 2012:53)

Formally, the progressive in (73) is an equative clause consisting of the invariable 3SM copula *-u* and its complement, which is either a relative clause headed by an imperfective verb, or a plain imperfective verb. Imperfective verbs in main and relative clauses are formally identical in Mesqan. Only their position in a clause can distinguish between the two functions, i.e. main verbs in Mesqan always occur clause-finally, while relative clauses are usually followed by a head noun. On the other hand, Tigrinya (North ES) has a structurally similar construction, in which the copula clearly co-occurs with a plain imperfective verb, not with a relative clause. However, the Tigrinya construction is used to express something like a general present, which functionally and formally contrasts with the continuous (Voigt 1977:337). Thus, the structure of the Mesqan construction in (73) remains vague. Its restriction to non-past situations seems to have a structural reason. If the copula is replaced by the past auxiliary, the construction becomes homonymous with the regular past imperfective.

Generally, the tense-marked continuous constructions only occur in main clauses, which are usually in the affirmative. In other clause types, the continuous remains a sub-reading of the plain imperfective verb.

6.3 Perfect

In addition to viewpoint aspect, all ES languages have a perfect as additional aspectual category in affirmative main clauses.[72] In negation (or in subordination),

[72] For a definition, see Section 3. Note that the experiential perfect is formed by another construction in ES.

the perfect tends to be substituted by a verb in the perfective aspect. Notable exceptions to this constraint are the Gojjam variety of Amharic,[73] the negated perfect in Zay (Meyer 2005:158–159), and the subordinated perfect in Tigrinya (Voigt 1977:166–169) and Gəʿəz (cf. Weninger 2001:333–335). Similar exceptions in other languages (or varieties of them) cannot be ruled out.

The perfect in ES is not marked by verb inflection, but through a periphrastic construction consisting of an inflected verb and an obligatorily time auxiliary including a zero marker for non-past reference (see Section 4.5 and 6.1). Most frequently, the perfect is based on the inflected converb or its functional equivalent (see Section 4.4). All converb-based perfect constructions make a formal distinction between present and past perfect, as shown in (74)–(75) for the inflected converb in Amharic and Tigrinya, and in (78)–(79) for the functional converb equivalent in Zay and Muher.[74]

(74) a. *wändəmm-e* *addis abäba* *därs^{w}-all.* AMHARIC
brother-POSS.1S Addis_Ababa arrive.CNV.3SM-AUX.EXIST/NPST
'My brother has arrived in Addis Ababa (and is still there).'
(Leslau 1995:389)

b. *bet-u* *s-ə-därs* *məsa-wə-n* *bälto* *näbbär.*
house-POSS.3SM when-1S-arrive\IPFV lunch-POSS.3SM-ACC eat\CNV.3SM AUX.PST
'When I arrived at his house, he had already eaten his lunch.'
(Leslau 1995:374)

(75) a. *ħadä* *mäsʾħaf* *hib-u-nni.* TIGRINYA
one book give\CNV-SJ.3SM-BEN.OJ.1S
'He has given/gave me a book.' (Leslau 1941:85)

b. *təʔzaz* *täʔazziz-u* *näbär-ä.*
order obey\CNV-3SM AUX.PST-3SM
'He had obeyed the order.' (Leslau 1941:87)

---

[73] The use of bare (affirmative or even negated) converbs in the function of an independent main-clause verb is a unique dialect feature of Gojjam Amharic. However, nothing is known about its relationship vis-à-vis the perfective verb, or its grammatical function. Bare converbs without a reference verb also occur in other Amharic dialects, but only in specific pragmatic contexts, in which they could be part of an elliptic sentence. Apparently, this is not the case in Gojjam Amharic (cf. Meyer 2012:171 fn. 9, for a summary and refences).

[74] Instead of time auxiliaries, the converb-based perfect may also co-occur with a modal auxiliary, based on the root √*kwn* 'be(come)' in the imperfective (cf., e.g. Voigt 1977:178–182 for Tigrinya). These constructions will not be considered here.

The perfect in (74) and (75) has a resultative reading, which emphasizes the inherent endpoint of the dynamic verbs ‘arrive’ and ‘give’ and the subsequent state. The past perfect, as in (74b) or (75b), is always overtly marked for tense by the past auxiliary. In contrast, in the Amharic present perfect (74a), the existential auxiliary overtly refers to the moment of speech, but such an overt tense marker is lacking in the Tigrinya present perfect (75a). Although the Tigrinya present perfect resembles a plain converb, they differ functionally. The plain converb is unmarked for tense and, thus, can convey past, present and future readings (cf. Voigt 1977:150–155), whereas the present perfect, i.e. the plain converb in main clauses, always has the moment of speech as reference point (cf. Voigt 1977:143–147). Thus, as with the imperfective in main clauses (see Section 6.1), the present perfect in Tigrinya is inherently marked for present tense by a zero morpheme, which stands in opposition to the temporal auxiliary of the past perfect.

Furthermore, the Tigrinya present perfect can optionally combine with the existential/non-past auxiliary as tense marker (cf. Voigt 1977:183–184):[75]

(76) *färih-e* *ʔallo-ku.* TIGRINYA
fear\CNV-1S AUX.EXIST/NPST-1S
‘I am afraid (now).’ (Voigt 1977:185)

The two present perfect constructions in Tigrinya, i.e. with zero or the existential auxiliary as present tense marker, probably support an ongoing change in the verbal system. According to Voigt (1977:142), the plain converb should not be very frequent as main verb, i.e. present perfect, in Tigrinya. Today, however, it is so common that it almost replaced verbs in the perfective aspect from affirmative main clauses (cf. Rubin 2010:50) – therefore the two optional translations in (75a).[76] Due to the existential verb as an optional auxiliary for the present perfect, however, the two functions – perfective and present perfect – can still be formally distinguished from each other in Tigrinya.

The perfect in Argobba and Gəʿəz is also based on an inflected converb. The Argobba perfect is formally and functionally almost identical to Amharic. As for Gəʿəz, Weniger (2001:279–286, 306–307, 333–335) shows that the perfect can be expressed by formally different but functionally similar constructions, which, however, are only rarely found in texts from a period when Gəʿəz most probably ceased to be a spoken native language. Therefore, Weninger (2001:307) argues that

[75] In addition, the present perfect in Tigrinya may consist of the converb and the copula as non-past marker. In contrast to the converb plus existential/non-past auxiliary, this construction seems to express certainty or assertion, i.e. a kind of episthemic modality (cf. Voigt 1977:170).

[76] Beside Gojjam Amharic (recall fn. 73), a similar process also occurs in certain Gunnän Gurage languages (see below).

the perfect is not a genuine grammatical category in Gəʿəz, but emerged due to linguistic interference through Arabic- or Amharic-speaking bilingual scribes (cf. also Tropper 2002:208).

Three distinct morphosyntactic perfect constructions are found in Gəʿəz, which all refer to a past situation, i.e. Gəʿəz only marks the past perfect:

(77) a. *wä-mätəħt-ä* *wəʔətu* *däbr* *halläw-u* GƎʿƎZ
and-base-ACC 3SM mountain (AUX).exist\PFV-3PM
ħəzb *kʷəllomu* *tägābiʔomu.*
people all.POSS.3PM gather\CNV.3PM
'And at the base of that mountain all people had gathered.'
(Weninger 2001:279)

b. *wä-nəguś-ä* *nägäśt-əssä* *śəltʾān* *sägäd* *näbär-ä* *ʔakʾdimo*
and-king-LNK king\PL-EMPH Sultan Sagad AUX.PST-3SM do_first\CNV.3SM
fännəwot-ä *mälʔəkt* *xabä* *kʾäbʔa* *krəstos.*
send\VN-LNK message ALL Qabʔa Krəstos
'And as to the king of kings Sultan Sagad, he had already sent a message [lit. he had first done the sending of the message] to Qabʔa Krəstos.'
(Weninger 2001:306)

c. *wa-kon-ä* *kʾəddus* *ʔanbäb-ä* *mäsʾāħəft-ä* *bəzuxāt-ä.*
and-AUX.PST-3SM saint read\PFV-3SM book\PL-ACC many\PL-ACC
'And the saint had (also) read many books.' (Weninger 2001:283)

In (77a–b), the past perfect consists of the inflected converb and an auxiliary, but of a perfective verb and an auxiliary in (77c). The latter construction might be influenced by Arabic, while the construction in (77b) should have an Amharic origin due to the past auxiliary *näbär-* (cf. Section 6.1, in particular example (62)). Although the perfect construction in (77a) is structurally similar to Amharic (or Tigrinya), Weninger (2001:282) doubts an Amharic/Tigrinya influence because the existential verb/auxiliary in Gəʿəz exclusively marks the past, whereas it refers to present situations in Amharic and Tigrinya.

Perfect constructions based on a functional converb equivalent are found in Zay and in all Gunnän Gurage languages, but not in Wolane and Siltʾe, which like Zay belong to Eastern Gurage, nor in Harari. Among the various converb equivalents, only a perfective verb marked by the linker *-m* (see Section 4.4) occurs in the perfect, as shown in (78) for Zay, or in (79) for Muher as a representative of Gunnän Gurage:

(78) a. *ʔābbā-ɲä* *gäräd-ä-n* *näkʾäl-ä-m-älo.* ZAY
father-POSS.1P girl-ACC-FOC take\PFV-3SM-CNV-AUX.EXIST/NPST.3SM.MVM
'Our father has married [lit. taken] a girl.' (Meyer 2005:397)

b. *ʔējā-mmā* *lōmt'at-ən* *fātʃ'ī-hu-m* *nār-o.*
1S-EMPH DAT.come\VN-FOC want\PFV-1S-CNV AUX.PST-3SM.MVM
'As to me, I had liked to come.' (Meyer 2005:301)

(79) a. *kubra* *taməɲŋa* *(*nägä)* *əga* *gäddat-əm.* MUHER
Kubra yesterday (tomorrow) water pour\PFV.3SF-CNV[PRS.PRF]
i. 'Kubra has fetched water yesterday [and it is still available].'
(ii. 'Kubra fetched water yesterday [as a matter of fact].')

b. *asfa* *taməɲŋa* *əga* *gädda-m* *banno.*
Asfa yesterday water pour\PFV.3SM-CNV AUX.PST.3SM.MVM
'Asfa had fetched water yesterday [but it is gone now].'

The perfect in Zay and Gunnän Gurage distinguishes between present and past time. While past reference is always overtly marked by the respective past auxiliary, only Zay overtly indicates present tense through the existential/non-past auxiliary. In Gunnän Gurage, present tense is a covert feature of the perfect construction, as was the case in Tigrinya. Converb and present perfect in Gunnän Gurage are formally identical, but differ functionally. The present perfect can only refer to a present situation, as shown by the ungrammaticality of the time adverb *nägä* 'tomorrow' in (79a), while the linker converb does not have a specific time implication, i.e. it can also occur in future contexts:

(80) *kubra* *nägä* *əga* *gäddat-əm* *t-abäse.* MUHER
Kubra tomorrow water pour\PFV.3SF-CNV 3SF-bring\IPFV.MVM
'Kubra will fetch water and bring it tomorrow.'

Furthermore, converbs and the present perfect have a complementary syntactic distribution, i.e. converbs occur clause-medially, but the present perfect clause-finally.

In Muher, but also in Chaha and Inor, the present perfect totally replaced the perfective in affirmative main clauses. Consequently, the two aspectual functions of the perfect and the perfective are now merged in a single construction, as indicated by the two translations of example (79a), in which the reading in (i) represents the present perfect, while (ii) stands for the perfective. These two functions are still formally distinguished in Mesqan and Kistane, which also belong to Gunnän Gurage:

(81) a. *tägäddär-ä.* MESQAN
sleep\PFV-3SM
i. 'He slept.' / ii. 'He is sleeping.' (Meseret 2012:38)

b. *zäjnu* *tägäddär-ä-m.*
Zeynu sleep\PFV-3SM-CNV[PRS.PRF]

‘Zeynu is sleeping.’ (Meseret 2012:57)

Example (81) is formed from the inchoative-stative verb ‘sleep, lay down’, whose semantics includes a starting point (‘move into a horizontal position’) and the subsequent state (‘remain in that position’). The present perfect in (81b) emphasizes both phases which yields a present continuous reading, in contrast to the resultative reading with the dynamic verbs in (74)–(75) or (78)–(79). Without context, the perfective in (81a) is also interpreted as a present continuous, as shown in the translation (ii), but it can also be used for general statements with a past implication, as in (i). This functional overlap between the present perfect and the perfective aspects of inchoative-stative verbs probably facilitates the extrusion of the perfective aspect from affirmative main clauses, as found in the closely related languages Muher, Chaha and Inor, but also in the more distant Tigrinya.[77]

Similar to the Gəʿəz example (77c), the perfect construction in the Transversal South ES languages Wolane, Silt’e and Harari is based on a full verb in the perfective aspect to which a time auxiliary is juxtaposed, although these languages also have a functional converb equivalent.

Wolane and Silt’e have identical perfect constructions, in which the present perfect is marked by the existential/non-past auxiliary, but the past perfect by the past auxiliary (Meyer 2006:120–121; Gutt 1997:920):

(82) a. *ʔahu-mä* *jä-käʃe-ʃ-i* *räxäb-ʃ-an.* WOLANE
now-EMPH REL-want\PFV-SJ.2SF-OJ.3SM get\PFV-SJ.2SF-AUX.EXIST > NPST
‘(Just) now you have gotten what you wanted.’ (Meyer 2006:211)

b. *läfurt’et* *säbär-k^{w}-i* *när.*
almost break\PFV-SJ.1S-OJ.3SM AUX.PST
‘I had almost broken it.’ (Meyer 2006:194)

Harari, in contrast, only has a past perfect, in which the past auxiliary is juxtaposed to a perfective verb, as in (83b), whereas a perfective main clause verb also conveys the present prefect reading (Beniam 2013:194–197), as in (83a):

(83) a. *bäläxxu.* HARARI
bälä?-xu
eat\PFV-1S

[77] Such a replacement of aspectual forms is not unique to ES. Historically, it already occurred in early Semitic, when the original Proto-Semitic perfective conjugation was replaced by the stative conjugation (which is functionally similar to the present perfect) in West Semitic (cf. Porkhomovsky 1997).

i. ‘I ate.’ / ii. ‘I have eaten [and am satisfied now].’ (Beniam 2013:195)

b. *ēmädʃiɲ* *nār –* *lākin* *räsäxxu.*
ēmäd-ʃi-ɲ nār lākin räsä?-xu
tell\PFV-SJ.2SF-OJ.1S AUX.PST but forget\PFV-1S
‘You had told (it) to me – but I have forgotten (it).’ (Beniam 2013:197)

According to Raz (1983:73–75), Tigre has three optional constructions for the perfect, but there is no information about their productivity or interrelationship. All constructions are obligatorily marked for tense either by the past auxiliary, or the existential auxiliary for the present. In two perfect constructions, a verb in the perfective aspect is combined with one of the time auxiliaries:

(84) a. … *tarf-at* *ka-hallat.* TIGRE
remain\PFV-3SF and-AUX.EXIST.3SF
‘… it has remained.’ (Raz 1983:73)

b. *baʔas-aw* *ka-ʕal-aw.*
quarrel\PFV-3PM and-AUX.PST-3PM
‘They had quarreled.’ (Raz 1983:74)

(85) *wa-ʔət* *dəwār* *la-ʕela-hu* *ʔak’ərnat* *ʕat’al* TIGRE
and-ALL circle DEF-well-POSS.3SM horn\PL GEN.goat\PL
ʔəndo *sāk’ak’-a* *ʕal-a.*
after stick\PFV-3SM AUX.PST-3SM
‘And he had stuck [in the ground] horns of goats around the well.’
(Raz 1983:73)

In the perfect construction (85), the perfective verb and the conjunction *ʔəndo* ‘after’ form a subordinate clause, which is obligatorily followed by the past auxiliary, i.e. this construction can only express the past perfect. The other perfect in (84) is a coordinating construction in which the conjunction *ka-* ‘and’ connects the perfective verb with the respective past or present auxiliary. This construction is structurally similar to the perfect based on linker converbs, specifically to that in Zay (see example (78)), as the linker is also used as coordinating conjunction (cf. Section 4.4).

The third perfect construction is based on a subordinate clause headed by a participle, and the respective auxiliary for past or present time reference:

(86) a. *nəgus* *kabasa* *mās’əʔ* *halla.* TIGRE
king Kabasa comer AUX.EXIST.3SM
‘The King of Kabasa has arrived.’ (Raz 1983:74)

b. *k'adam* *bəzuħ* *ʕāmotāt* *ʔət* *ʔətjopja* *māsʼəʔ* *ʕal-ko.*
before many year.PL ALL Ethiopia comer AUX.PST-1SG
'I had come to Ethiopia many years ago.' (Raz 1983:75)

As the participle in (86) is not marked for a specific person, the respective subject is only indicated at the auxiliary verb.

7 SUMMARY AND CONCLUSIONS

The starting point in this paper was the assumption that ES languages are all descended from a common ancestor, which provided them with an essential stock of lexical and grammatical traits, as well as conceptual principles. More specifically, it is presumed that the ES languages share the basic formal and functional features of the core categories in verb inflection, although they might have been modified, changed, or extended in certain language groups or individual languages due to internal developments (e.g. grammaticalization, leveling), or language-contact.

A peculiar feature of the verb inflection in ES is the non-concatenative morphology, which – in combination with the form of the inflectional morphemes – is a clear reflex of its Proto-Semitic ancestry. A regular verb in ES consists of two compulsory morphological parts: a base formed by interdigitating a lexical root with a given template to depict an inflectional category, and an affix that primarily indexes the person, number and gender of the subject. Every ES language has at least two complementarily distributed subject indexes (a suffix and a circumfix set), which consequently serve as secondary, but often determining, exponents for a specific inflectional category. That means the same template may occur in several inflectional categories, which then are disambiguated by the respective subject index. Moreover, an inflectional category can be divided into lexical or morphosyntactic sub-classes, which are represented by distinct templates. Therefore, each inflectional verb category is defined through a combination of a subject index and a template (or a range of templates).

The two subject indexes in ES are of common Semitic origin, but also became subject to modifications in individual languages and language groups, like the replacement of the 3rd person subject prefix *j-* by *l-* in Tigre, the transformation of the 1P prefix *n-* to the circumfix *n-…-nä* in Eastern and Gunnän Gurage, except Kistane, or the loss of the gender distinction with plural subjects in Transversal South ES. The main reason for the various modifications in the circumfix subject index might be a tendency to increase the contrast between the imperfective and jussive conjugations in affirmative main clauses. Accordingly, the Gunnän Gurage languages use a unique prefix for 1S subjects on affirmative imperfective verbs in main clauses to set them apart from negated or subordinated imperfective verbs, for which the subject prefix of the jussive conjugation is used instead. Wolane and Silt'e, in contrast, lay stress on negated imperfective verbs in main clauses through a

unique subject affix set not found in other clause types or conjugations. Moreover, Eastern and Gunnän Gurage, as well as Harari augment the 3rd person subject prefix *j-* by the vowel *ä* in the affirmative jussive; in Eastern Gurage, the vowel augment was extend to all subject prefixes in the affirmative jussive. Tigre, Argobba, and a southern Tigrinya dialect, in contrast, omit the prefix of the subject index on affirmative imperfective verbs in main clauses, but not on verbs in the jussive. Although some modifications are specific to clusters of genetically closely related languages within ES, there is also a strong areal component involved, which could have facilitated their spread to adjacent languages.

Three basic inflectional patterns are found in all ES languages with triliteral Type A verbs, which consequently were considered the core conjugations:

Table 11 Core and secondary conjugations of triliteral Type A verbs in ES

Template	Conjugation	Basic function
Core		
*$C_1äC_2äC_3$	*$C_1äC_2äC_3$-SSJ	Perfective
*$C_1äC_2C_3$	*CSJ-$C_1äC_2C_3$-CSJ	Imperfective
*$C_1C_2(ä)C_3$	*CSJ-$C_1C_2(ä)C_3$-CSJ	Jussive
Extension		
*$C_1äC_2iC_3$-ä	*$C_1äC_2iC_3ä$-POSS	Converb (Gəʿəz, Tigrinya, Amharic, Argobba)
*$C_1C_2(ä)C_3$-^{j}tä	*$C_1C_2(ä)C_3^j$tä-SSJ	Converb (Chaha, Inor)

The three core conjugations formally distinguish between perfective and imperfective in the indicative mood, as well as the jussive in the imperative mood. The two indicative conjugations are marked by separate templates and subject indexes. The jussive and imperfective conjugations, in contrast, both index their subject by the circumfix set, and differ only in their templates. The formal distinction between imperfective and jussive through templates is a peculiar feature of ES and Modern South Arabian, which originates from Proto-Semitic (cf. Weninger 2011a:1116). The templates of the core conjugations in Table 11 only contain single, i.e. non-geminated, consonants. As Proto-Semitic has two imperfective templates, from which only the template of the pluractional imperfective contains a geminated C_2, gemination need not be part of the Proto-ES imperfective. As such it is only found in North ES, where its occurrence is phonologically conditioned in the modern languages, which is a sign that it is not a prominent feature of the imperfective template, i.e. it could also be a secondary development. In South ES, gemination clearly represents a secondary feature of the perfective, as it is still lacking in the negative perfective in most Gunnän Gurage languages, and throughout Eastern Gurage. The gemination of C_2 in the perfective template seems to be a specific feature of Amharic and Argobba. From there, it probably spread through language

contact to Gunnän Gurage, in which it became a secondary exponent for affirmative perfective verbs due to its lack in the negative counterparts. Therefore, the perfective and imperfective templates with single C_2, as in Eastern Gurage, represents most probably the original ES pattern, which then was modified in North and Transversal South ES.

The Eastern Gurage language Zay but also Argobba might have preserved another archaic Semitic pattern in the perfective inflection. While affirmative perfective verbs in these two languages are conjugated with the regular perfective template, negated perfective verbs inflect in the actual jussive template, which in Proto-Semitic was used for the conjugation of perfective and jussive/subjunctive verbs. Beside the regular jussive conjugation, scattered remnants of the multifunctional perfective-jussive/subjunctive template from Proto-Semitic are found in various ES languages, among which the negated perfective in Zay and Argobba, the specialized converb conjugation in Chaha and Inor (cf. Table 11), the subjunctive in Gəʿəz and Tigrinya, and probably the perfective conjugation of the verb 'say' with the circumfix subject index in Gəʿəz and Tigre are the most prominent.

The jussive conjugation in ES bears evidence for another Proto-Semitic feature, namely the formal distinction between transitive or active verbs with an agent-subject vs. intransitive or stative verbs with a theme-subject, which is conserved in the templates *$C_1C_2C_3$ vs. *$C_1C_2äC_3$, or more precisely in the alternation of the template vowels, i.e. no vowel for transitive verbs vs. vowel *ä* for intransitive verbs. The actual function of this vowel alternation remains rather vague in ES. In the languages, which still have the two alternative jussive templates, i.e. Gəʿəz in the north and Gunnän Gurage in the south, the use of either template is lexically determined. Based on their frequency in Gunnän Gurage, it seems that the rarely used intransitive template *$C_1C_2äC_3$ is functionally more marked, as it predominates with inchoative-stative verbs with a non-animate subject. The very frequent transitive template *$C_1C_2C_3$, in contrast, is found with all semantic types of verbs. In Gəʿəz, the semantic restrictions of the two templates are less transparent. As their frequency distribution also appears to be more uniform in Gəʿəz, it seems that there is a tendency towards the transitive template *$C_1C_2C_3$ as preferred general pattern for the jussive. Therefore, it is surprising that the remaining ES languages with only one jussive template exclusively use just the intransitive pattern *$C_1C_2äC_3$. Given that the association between transitivity and template vowel also alters in other Semitic languages, as well as the merger of the two templates into a single jussive conjugation in Kistane, definitely more research is needed. This also applies to the additional "intransitive" perfective template *$C_1äC_2C_3$ in Gəʿəz and Tigre. The occurrence of two perfective templates in Tigre seems to be phonologically conditioned, i.e. they represent two allomorphs of the same conjugation in complementary distribution (i.e. with 3rd person subjects *$C_1äC_2C_3$, elsewhere *$C_1äC_2äC_3$), but not two different semantic verb classes. All other Modern ES languages underwent a leveling process, in which the template *$C_1äC_2C_3$ vanished from the perfective conjugation. Such a leveling process, in which the template

*C_1äC_2äC_3 was extended to 3rd person subjects, could still be ongoing in Gəʿəz. In analogy to the jussive, the co-occurrence of the two perfective templates could have been associated with transitivity to a certain extent, but not rigorously, as evidenced by numerous verbs, which optionally occur in either template, or the inconsistency between the perfective and jussive conjugation of a single verb.

The secondary converb conjugation in Table 11, i.e. the inflected converb, is a peculiarity of two geographically opposite language clusters in ES, namely Gəʿəz, Tigrinya, Amharic and Argobba in the north vs. Chaha and Inor in the south. Although a verb in the converb conjugation obligatorily indexes its subject, it is not marked for a specific aspect or modality, but only for a subordinate syntactic status, i.e. converbs are intrinsically dependent verbs that are unable to serve as a main-clause verb on their own. Accordingly, the northern converb functions as general adverbial modifier to a verb in the core conjugations, or is used in clause-chaining constructions to denote a sequence of connected situations. In Gəʿəz, the inflected converb transparently grammaticalized from a verbal noun in the adverbial accusative to which a possessive suffix was attached as subject index. Despite a few modifications, the converbs in Tigrinya, Amharic and Argobba are apparently of the same origin as the Gəʿəz converb. A common genetic origin is not plausible. Amharic and Argobba do not belong to North ES, whereas the third North ES language, Tigre, lacks a converb at all. A Proto-ES origin is also very as this converb is only found in four languages, which are spoken in geographically adjacent areas. The southern converb in Chaha and Inor is formed from the jussive template and, thus, not directly related to the northern converb.

Functionally, the southern converb only serves as adverbial modifier to non-indicative or negated verbs, i.e. it is a specialized converb with a restricted distribution. Instead of the inflected converb, Chaha and Inor use a linker converb as functional equivalent to the general northern converb. Such a linker converb, which consists of a regularly inflected verb and an additional linking element, is also found in the other Gunnän Gurage languages, as well as in Eastern Gurage and Harari. In Tigre, which is neither genetically nor geographically closely related, a coordinating construction can also optionally indicate a kind of adverbial modification so that there is probably a common grammaticalization path in ES from coordination to linker converb. However, Tigre has not grammaticalized a specific converb construction but still uses various syntactic constructions for adverbial modification and clause chaining. Southern Gunnän Gurage, in contrast, marks the linker converb in clause-chaining function by an augment so that it can be formally distinguished from the converb in adverbial function. This modification further spread to the adjacent Northern Gurage language Kistane (which has another augment), and to the Eastern Gurage languages Wolane and Silt'e, but is lacking in Zay. On the other hand, Silt'e and Wolane are characterized through a peculiar linker, which is not found elsewhere.

In addition to the core conjugations, all Modern ES languages grammaticalized the tense opposition past vs. non-past as a grammatical feature of nominal sentences,

and with imperfective verbs in main clauses. Eventually, tense became an obligatory part in the inflection of all main-clause verbs, except for perfective verbs. Tense is indicated through auxiliaries and copulas, i.e. lexical elements. While past tense is always overtly marked by an auxiliary, non-past can also be expressed by a zero morpheme. Based on the obligatory tense markers with imperfective verbs, three language clusters can be distinguished in ES:

Table 12 Tense with affirmative imperfective verbs in main clauses

	NON-PAST	PAST	LANGUAGE
(a)		IPFV (IPFV + AUX.PST)	Gəʿəz
(b)	IPFV + Ø	IPFV + AUX.PST	Tigre, Tigrinya, Gunnän Gurage
(c)	IPFV + AUX.EXIST	IPFV + AUX.PST	Transversal South ES

As tense marking on imperfective verbs is optional in Gəʿəz, and as such not a typical feature for a Semitic language, its occurrence in ES is clearly an innovation based on the pattern (b) in Table 12. The obligatory marking of past tense through an auxiliary delimits the function of plain imperfective verbs. Consequently, they are inherently marked for non-past reference by a zero morpheme in main clauses. The overt marking of non-past in (c) is a more recent development, as the languages of this group still retain a zero-marked imperfective verb with non-past reference in negation. The non-past imperfective in Transversal South ES grammaticalized from the periphrastic present-continuous/progressive construction in North ES, in which an imperfective verb is combined with the existential auxiliary. As a result, Transversal South ES either includes the progressive/continuous as sub-reading of the imperfective conjugation without a formal marker, or grammaticalized a number of periphrastic constructions for the progressive. The same also applies for Gunnän Gurage, in which no uniform construction is used to mark the progressive as a specific phasal aspect. Thus, this phasal aspect is clearly a secondary development in ES, but with an intriguing genetic/geographic divide: North ES languages have a continuous construction for stative and dynamic verbs, whereas South ES only grammaticalized constructions for the progressive, which is restricted to dynamic verbs.

All ES languages have an existential verb or auxiliary that stems from the perfective base of the root √*hlw* ‘exist’. In addition to existence, this auxiliary acquired an inherent tense specification for non-past or present time reference, which is lacking in Gəʿəz. Moreover, all Gunnän Gurage languages, except Inor, replaced the existential auxiliary in affirmative main clauses by other elements (of unclear origin) in the same function. Past tense is most frequently marked by an auxiliary that grammaticalized from the root √*nbr* ‘reside, live’ in the perfective conjugation. Similar to the existential auxiliary, Gunnän Gurage languages (except Kistane)

replaced it in affirmative main clauses by the element **bannä*. In addition, Gəʿəz and Tigre (North ES) grammaticalized their past auxiliary from other roots, namely √*kwn* 'be(come)' and √*wʕl* 'spend the day', respectively. These formal differences indicate that tense is a secondary development in ES, which, however, resulted in an identical functional bipartite division in Modern ES. Originally, only past was the marked tense value. When its optional marking (as in Gəʿəz) became obligatory in main clauses, its absence, i.e. formally a zero marker, was straightforwardly associated with non-past reference. Later, the non-past value was formally enforced by replacing the zero marker by the existential auxiliary:

Table 13 Common bipartite tense system in Modern ES

PAST	**VS.**	**NON-PAST**
PST.AUX		Ø > AUX.EXIST/NPST

The importance of overt past marking can also be seen in the perfect construction, which grammaticalized as additional aspectual category in all Modern ES languages. As for Gəʿəz, it is commonly assumed that the perfect represents a late construction, most probably due to the influence of bilingual scribes. Formally, the perfect is a construction, which is exclusively occurs in main clauses, usually with an affirmative verb. Most commonly, the perfect is based on a converb, less frequently on a perfective verb and only once on a participle, which are marked for past or non-past tense. The following basic patterns are found in ES:

Table 14 Perfect constructions in ES

	PRESENT PERFECT	**PAST PERFECT**	**LANGUAGE**
	Inflected converb		
(a)	CNV + Ø	CNV + AUX.PST	Tigrinya
(b)	CNV + AUX.EXIST	CNV + AUX.PST	Amharic, Argobba
(c)	——	CNV + AUX.PST / CNV + AUX.EXIST	Gəʿəz
	Linker converb		
(d)	[PFV.CNV] + Ø	[PFV.CNV] + AUX.PST	Gunnän Gurage
(e)	[PFV.CNV] + AUX.EXIST	[PFV.CNV] + AUX.PST	Zay
	Perfective verb		
(f)	PFV + AUX.EXIST	PFV + AUX.PST	Wolane, Silt'e
(g)	——	PFV + AUX.PST	Harari, Gəʿəz
(h)	PFV + CNJ-AUX.EXIST	PFV + CNJ-AUX.PST	Tigre
(i)	——	SUB-PFV + AUX.PST	Tigre

	PRESENT PERFECT	PAST PERFECT	LANGUAGE
	Participle		
(j)	PARTICIPLE + AUX.EXIST	PARTICIPLE + AUX.PST	Tigre

Regardless of the perfect construction, a past perfect is consistently marked by the past auxiliary, except for Gəʿəz, in which the existential auxiliary might also be used. As three languages, Gəʿəz, Harari and Tigre, have a construction which only denotes the past perfect without a present counterpart, i.e. (c), (g), and (i), it can be assumed that the past perfect is the primary construction, from which a present perfect could develop, which is either marked by zero for non-past (Tigrinya and Gunnän Gurage) or by the existential auxiliary (Eastern Gurage and Tigre). The various perfect constructions in Tigre and Gəʿəz, probably show that this category is still in the process of grammaticalization (Tigre, Gəʿəz) or borrowing (Gəʿəz). In all other languages, only a single perfect construction exist, in which tense is marked according to the pattern of the respective imperfective verbs.

Semantically, the perfect is very similar to the perfective because both focus on the transformational phase of a situation. Accordingly, inchoative-stative verbs have a default present-perfect interpretation in the perfective aspect, whereas a past reading needs further indications through the context – or through a past perfect construction, in which the perfective verb is overtly marked for past tense, as in the construction (g) in Table 14 for Gəʿəz and Harari. In the same way, a dynamic verb in the perfective conjugation has a default past reading, but is hardly interpreted as a resultative, i.e. as an anterior situation which is still relevant at the moment of speech. This meaning is clearly denoted by the present perfect. Eventually, the present perfect became so productive that it extruded the perfective from affirmative main clauses in Gunnän Gurage (except Kistane and Mesqan); a parallel process can also be observed in Tigrinya.

Thus, with the introduction of tense as a secondary grammatical category in main clauses various new options to denote a specific phasal aspect through a periphrastic construction emerged, which then started to interact with the core and extended inflectional categories. As a result, the conventionalized aspectual and temporal expressions and their functional conceptualizations started to diverge in ES. Such a process has already occurred at an earlier stage of ES. In Gəʿəz, the imperfective is totally independent of tense so that the perfective and imperfective core conjugations represent simply a binary aspect opposition. In Modern ES, however, an imperfective main clause verb is obligatorily marked for either past or non-past tense resulting in a tripartite system in main clauses, in which the tenseless perfective conjugation contrasts with a past and a non-past imperfective. The tenseless binary aspect opposition from Gəʿəz only survived in certain subordinate clauses, whereas it developed into a tense-sensitive aspect system, past perfective vs. non-past imperfective, in relative clauses. Perfective verbs in main clauses are still

unmarked for tense, as their temporal interpretation depends on the lexical aspect of the verb, i.e. inchoative-stative verbs have a default present perfect reading, whereas dynamic verbs imply a past reference. If the perfective conjugation were inherently marked for past tense, such an interaction would have been impossible. Other indicators for the primacy of aspect over tense, is the exceptional use of the perfective conjugation to refer to situations in the immediate future whose realization is considered as absolutely certain, and its inability to denote habitual situations in the past. As these constraints are reported for all ES languages – including Gəʿəz – there is no doubt that the two core conjugations in the indicative mood denote viewpoint aspect, but not tense nor relative tense.

8 ABBREVIATIONS

1, 2, 3	First, second, third person; first, second, third consonant in a root
°	Bound or dependent base
*	Ungrammatical, reconstructed or abstract form, expression
√	Root
ABL	Ablative
ACC	Accusative
ADS	Adessive
APL	Associative plural
AUG	Augment
AUX	Auxiliary verb/element
BEN	Benefactive applicative
C	Consonant
CND	Conditional clause
CNJ	Coordinating conjunction
CNV	Converb
COM	Comitative
COP	Copula
CPL	Complementizer
CSJ	Circumfix subject index
DAT	Dative
DEF	Definite
DST	Distal
EMPH	Emphasis
ES	Ethiosemitic
EXIST	Existential verb/auxiliary
FOC	Focus
FUT	Future
GEN	Genitive
IDPH	Ideophone
INTJ	Interjection
IPFV	Imperfective
ITR	Intransitive
JUSS	Jussive
LNK	Linking element
LOC	Locative
MVM	Main verb marker
NEG	Negation
NPST	Non-past
OJ	Object
P	Plural
PF	Plural-feminine
PFV	Perfective
PL	Plural
PM	Plural-masculine
POSS	Possessive
PRF	Perfect
PRS	Present
PRX	Proximal
PST	Past
REL	Relative clause
S	Singular
SF	Singular-feminine
SJ	Subject
SM	Singular-masculine
SSJ	Suffix subject index
SUB	Subordinating conjunction
TR	Transitive
VN	Verbal noun

9 REFERENCES

Appleyard, David. 2002. The morphology of main and subordinate verb forms in Ethiopian Semitic and Agaw. *Afrikanistische Arbeitspapiere* 71. 9–31.

Azeb, Amha & Gerrit Dimmendaal. 2006. Converbs in an African perspective. In Felix K. Ameka, Alan Dench & Nicholas Evans (eds.), *Catching language: The standing challenge of grammar writing*, 393–440. Berlin & New York: Mouton de Gruyter.

Bedilu, Wakjira Debela. 2001. Verbal extension and argument structure in Kistaninya. Trondheim: Norwegian University of Science and Technology MPhil Thesis.

Bedilu, Wakjira Debela. 2010. *Morphology and verb construction types of Kistaniniya*. Trondheim: NTNU.

Beniam, Mitiku Cherinet. 2013. Harari: A descriptive grammar. Addis Ababa: Addis Ababa University PhD Dissertation.

Berhanu, Chamora & Robert Hetzron. 2000. *Inor*. München: Lincom Europa.

Bhat, D.N.S. 1999. *The prominence of tense, aspect and mood*. Amsterdam & Philadelphia: John Benjamins.

Binnick, Robert I. 1991. *Time and the verb: A guide to tense and aspect*. New York: Oxford University Press.

Binnick, Robert I. 2001. Temporality and aspectuality. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals: An international handbook. Volume 1*, 557–567. Berlin & New York: Walter de Gruyter.

Bombeck, Stefan. 1997. hallo und kona im altäthiopischen Markusevangelium. *Biblical Notes* 87. 5–12.

Bulakh, Maria & Leonid Kogan. 2010. The genealogical position of Tigre and the problem of North Ethio-Semitic unity. *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 160. 273–302.

Bybee, Joan L. 1985. *Morphology: A study of the relation between meaning and form*. Amsterdam & Philadelphia: John Benjamins.

Bybee, Joan L. & Östen Dahl. 1989. The creation of tense and aspect systems in the languages of the world. *Studies in Language* 13(1). 51–103.

Bybee, Joan, Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago & London: The University of Chicago Press.

Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.

Comrie, Bernard. 1985. *Tense*. Cambridge: Cambridge University Press.

Crass, Joachim, Girma A. Demeke, Ronny Meyer & Andreas Wetter. 2005. *Copula and focus constructions in selected Ethiopian languages*. (University of Leipzig Papers on Africa/Languages and Literatures 25). Leipzig: Institut für Afrikanistik.

Crass, Joachim & Ronny Meyer. 2008. Ethiopia. In Bernd Heine & Derek Nurse (eds.), *A linguistic geography of Africa*, 228–249. Cambridge: Cambridge University Press.

Dahl, Östen. 1985. *Tense and aspect systems*. Oxford: Blackwell.

Dancygier, Barbara & Eve Sweetser. 2005. *Mental spaces in grammar: Conditional constructions*. Cambridge: Cambridge University Press.

Demissie, Manahlot. 1988. Some notes on Amharic performative verbs. In Beyene Taddese (ed.), *Proceedings of the 8th International Congress of Ethiopian Studies, University of Addis Ababa, 1984*, 623–627. Addis Ababa: Institute of Ethiopian Studies.

Ebert, Karen H. 2008. Forms and functions of converbs. In Karen H. Ebert, Johanna Mattissen & Rafael Suter (eds.), *From Siberia to Ethiopia: Converbs in a cross-linguistic perspective*, 7–33. Zurich: ASAS.

Edzard, Lutz. 2012. Introduction: Semitic and Afroasiatic. In Lutz Edzard (ed.), *Semitic and Afroasiatic: Challenges and opportunities*, 23–58. Wiesbaden: Harrassowitz.

Elias, David Lyndon. 2005. Tigre of Habab. Short grammar and texts from the Rigbat people. Cambridge, MA: Harvard University Unpublished PhD Thesis.

Elizabeth, Minase. 2012. Tempus, aspect and mood in Kəstanəññа. Addis Ababa: Addis Ababa University Unpublished MA Thesis.

Faber, Alice. 1997. Genetic subgrouping of the Semitic languages. In Robert Hetzron (ed.), *The Semitic languages*, 3–15. London & New York: Routledge.

Faust, Noam & Ya 'ar Hever. 2010. Empirical and theoretical arguments in favor of the discontinuous root in Semitic languages. *BAALL – Brill's Annual of Afroasiatic Languages and Linguistics* 2. 80–118.

Ferguson, Charles A. 1970. The Ethiopian language area. *Journal of Ethiopian Studies* 8(2). 67–80.

Filip, Hana. 2012. Lexical aspect. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, 721–751. Oxford: Oxford University Press.

Gensler, Orin. 1997. Reconstructing quadriliteral verb inflection: Ethiopic, Akkadian, Proto-Semitic. *Journal of Semitic Studies* 42(2). 229–257.

Gensler, Orin. 2011. Morphological typology of Semitic. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 270–293. Berlin: De Gruyter Mouton.

Getatchew, Haile. 1962. Das Verbalsystem im Äthiopischen: Ein morphologischer Vergleich mit den orientalischen semitischen Sprachen. Tübingen: Eberhard-Karls-University PhD Dissertation.

Girma, Awgichew Demeke. 2003. The clausal syntax of Ethio-Semitic. Tromsø: University of Tromsø.

Girma, Awgichew Demeke & Ronny Meyer. 2001. A reexamination of tense and aspect in Amharic. *Afrikanistische Arbeitspapiere* 65. 143–155.

Goldenberg, Gideon. 1968. Kəstanəññа: Studies in a Northern Gurage language of Christians. *Orientalia Suecana* 17. 61–102.

Goldenberg, Gideon. 1977. The Semitic languages of Ethiopia and their classification. *Bulletin of the School of Oriental and African Studies* 40. 461–507.

Goldenberg, Gideon. 2007. Linguistic treatment of syntactical relations, the predicative bond and Gurage. In Joachim Crass & Ronny Meyer (eds.), *Deictics, copula and focus in the Ethiopian convergence area*, 167–175. Köln: Köppe.

Goldenberg, Gideon. 2013. *Semitic languages: Features, structures, relations, processes*. Oxford: Oxford University Press.

Gragg, Gene & Robert Hoberman. 2012. Semitic. In Zygmunt Frajzyngier & Erin Shay (eds.), *The Afroasiatic languages*, 145–235. Cambridge: Cambridge University Press.

Gutt, Ernst-August. 1997. Concise grammar of Silt'e. In Eeva H. M. Gutt & Mohammed Mussa Hussein (eds.), *Silt'e-Amharic-English dictionary (with concise grammar by Ernst-August Gutt)*, 896–957. Addis Ababa: Addis Ababa University Press.

Hartmann, Josef. 1980. *Amharische Grammatik*. Wiesbaden: Steiner.

Haspelmath, Martin. 1995. The converb as a cross-linguistically valid category. In Martin Haspelmath & Ekkehard König (eds.), *Converbs in cross-linguistic perspective: Structure and meaning of adverbial verb forms – adverbial participles, gerunds*, 1–55. Berlin: Mouton de Gruyter.

Haspelmath, Martin. 2013. Argument indexing: A conceptual framework for the syntactic status of bound person forms. In Dik Bakker & Martin Haspelmath (eds.), *Languages across boundaries: Studies in memory of Anna Siewierska*, 197–226. Berlin: De Gruyter Mouton.

Hetzron, Robert. 1972. *Ethiopian Semitic: Studies in classification*. Manchester: Manchester University Press.

Hetzron, Robert. 1975. The t-converb in Western Gurage. *Afroasiatic Linguistics* 2(2). 15–26.

Hetzron, Robert. 1977. *The Gunnän-Gurage languages*. Napoli: Istituto Orientale di Napoli.

Hetzron, Robert. 1996. The two futures in Central and Peripheral Western Gurage. In Grover Hudson (ed.), *Essays on Gurage language and culture, dedicated to Wolf Leslau on the occasion of his 90th birthday*, 101–109. Wiesbaden: Harrassowitz.

Hever, Ya'ar. 2010. "Sentence converters" in Chaha (Ethiopian Semitic) in comparison with Coptic. In Sergio Baldi (ed.), *VIII Afro-Asiatic congress (Naples, 2008), Studi Magrebini, Volume VI*, 125–136. Naples: Università degli Studi di Napoli.

Hudson, Grover. 1977. Language classification and the Semitic prehistory of Ethiopia. *Folia Orientalia* 18. 119–166.

Hudson, Grover. 1991. A and B-Type verbs in Ethiopian and Proto-Semitic. In Alan S. Kaye (ed.), *Semitic studies: In honor of Wolf Leslau on the occasion of his eighty-fifth birthday Novemver 14th, 1991. Vol. 1*, 679–689. Wiesbaden: Harrassowitz.

Hudson, Grover. 1994. A neglected Ethiopian contribution to Semitic and Afroasiatic reconstruction. *Proceedings of the 20th annual meeting of the Berkeley Linguistic Society*, 47–56.

Hudson, Grover. 2000. Ethiopian Semitic overview. *Journal of Ethiopian Studies* 33(2). 75–86.

Hudson, Grover. 2005. Ethiopian Semitic nonpast C2 length. *Quaderni Semitistica* 25. 195–213.

Hudson, Grover. 2007. North and South Ethiopian Semitic. In Rainer M. Voigt (ed.), *From Beyond the Mediterranean: Akten des 7. Internationalen Semitohamitistenkongresses, Berlin 13-15 September 2004*, 539–348. Aachen: Shaker.

Hudson, Grover. 2008. Ergative-active features of the Ethiopian Semitic type. In Zygmunt Frajzyngier & Erin Shay (eds.), *Interaction of morphology and syntax: Case studies in Afroasiatic*, 107–135. Amsterdam & Philadelphia: John Benjamins.

Hudson, Grover. 2013. *Northeast African Semitic: Lexical comparisons and analysis*. Wiesbaden: Harrassowitz.

Huehnergard, John & Aaron D. Rubin. 2011. Phyla and waves: Models of classification of the Semitic languages. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 259–278. Berlin: De Gruyter Mouton.

Kapeliuk, Olga. 1997. Reflections on the Ethio-Semitic gerund. In Katsuyoshi Fukui, Eisei Kurimoto & Masayoshi Shigeta (eds.), *Ethiopia in a broader perspective: Papers of the 13th International Conference of Ethiopian Studies, Kyoto, 12–17 December 1997*, vol. I, 492–498. Kyoto: Shokado Book Sellers.

Kogan, Leonid. 1997. Tigrinya. In Robert Hetzron (ed.), *The Semitic languages*, 424–445. London & New York: Routledge.

Kogan, Leonid. 2005. Observations on Proto-Semitic vocalism. *Aula Orientalis* 23. 131–167.

Kouwenberg, N. J. C. 2010. *The Akkadan verb and its Semitic background*. Winona Lake, Indiana: Eisenbrauns.

Lambdin, Thomas. 1978. *Introduction to Classical Ethiopic (Geʿez)*. Harvard/Missoula: Scholars Press.

Leslau, Wolf. 1941. *Documents Tigrigna (Éthiopien septentrional): Grammaire et textes*. Paris: C. Klincksieck.

Leslau, Wolf. 1945a. *Short grammar of Tigré*. New Haven, Connecticut: American Oriental Society.

Leslau, Wolf. 1945b. *Gafat documents: Records of a South Ethiopic language – Grammar, text and comparative vocabulary*. New York: American Oriental Society.

Leslau, Wolf. 1956. *Étude descriptive et comparative du Gafat (Éthiopien méridional)*. Paris: C. Klincksieck.

Leslau, Wolf. 1967. Hypothesis on a Proto-Semitic marker of the imperfect in Gurage. *Journal of Near Eastern Studies* 26(2). 121–125.

Leslau, Wolf. 1968. *Ethiopians speak: Studies in cultural background. Part III. Soddo*. Berkeley and Los Angeles: University of California Press.

Leslau, Wolf. 1979a. *Etymological dictionary of Gurage (Ethiopic). Vol. II: English-Gurage index*. Wiesbaden: Harrassowitz.

Leslau, Wolf. 1979b. *Etymological dictionary of Gurage (Ethiopic). Vol. III: Etymological section*. Wiesbaden: Harrassowitz.

Leslau, Wolf. 1981. *Ethiopians speak: Studies in cultural background part IV – Muher*. Wiesbaden: Harrassowitz.

Leslau, Wolf. 1983. *Ethiopians speak: Studies in cultural background. Part V: Chaha Ennemor*. Wiesbaden: Steiner.

Leslau, Wolf. 1991. *Comparative dictionary of Gəʿəz: Gəʿəz-English / English-Gəʿəz with an index of the Semitic roots*. Wiesbaden: Harrassowitz.

Leslau, Wolf. 1995. *Reference grammar of Amharic*. Wiesbaden: Harrassowitz.

Lindstedt, Jouko. 2001. Tense and aspect. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals: An international handbook. Volume 1*, 768–783. Berlin & New York: Walter de Gruyter.

Lipiński, Edward. 1997. *Semitic languages: Outline of a comparative grammar*. Leuven: Peeters and Departement Oosterse Studies.

Meseret Eshetu. 2012. Tense, aspect and mood in Mesqan. Addis Ababa: Addis Ababa University, Unpublished MA Thesis.

Meyer, Ronny. 2002. “To be or not to be” - Is there a copula in Zay? In Baye Yimam, Richard Pankhurst, David Chapple, Yonas Admasu, Alula Pankhurst & Birhanu Teferra (eds.), *Proceedings of the 14th International Conference of Ethiopian Studies, 6 – 11 November 2000*, 1798–1808. Addis Ababa: Institute of Ethiopian Studies.

Meyer, Ronny. 2005. *Das Zay: Deskriptive Grammatik einer Ostguragesprache (Äthiosemitisch)*. Köln: Köppe.

Meyer, Ronny. 2006. *Wolane: Descriptive grammar of an East Gurage language (Ethiosemitic)*. Cologne: Köppe.

Meyer, Ronny. 2007. Non-verbal predication in East and Gunnän Gurage languages. In Joachim Crass & Ronny Meyer (eds.), *Deictics, copula and focus in the Ethiopian convergence area*, 177–194. Cologne: Köppe.

Meyer, Ronny. 2011a. Gurage. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 1220–1257. Berlin and New York: De Gruyter Mouton.

Meyer, Ronny. 2011b. The role of Amharic as a national language and an African lingua franca. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 1212–1220. Berlin: De Gruyter Mouton.

Meyer, Ronny. 2012. The converb in Amharic. In Domenyk Eades (ed.), *Grammaticalization in Semitic*, 165–192. Oxford: Oxford University Press.

Meyer, Ronny. 2014. Finiteness in Gurage languages. In Ronny Meyer, Yvonne Treis & Azeb Amha (eds.), *Explorations in Ethiopian linguistics: Complex predicates, finiteness and interrogativity*, 225–258. Wiesbaden: Harrassowitz.

Motomichi, Wakasa. 2001. Gerund in Amharic. *Tokyo University Linguistic Papers (TULIP)* 20. 425–451.

Poláček, Zdeněk. 1972. Some problems of tense and aspect in Amharic. *Archiv Orientální* 40. 206–237.

Polotsky, Hans Jürgen. 1951. *Notes on Gurage grammar*. Jerusalem: Israel Oriental Society.

Porkhomovsky, Victor. 1997. Modern South Arabian languages from a Semitic and Hamito-Semitic perspective. *Proceedings of the Seminar for Arabian Studies* 27. 219–223.

Praetorius, Franz. 1871. *Grammatik der Tigriñasprache in Abessinien*. Halle: Verlag der Buchhandlung des Waisenhauses.

Raz, Shlomo. 1983. *Tigre grammar and texts*. Malibu: Undena Publications.

Raz, Shlomo. 1997. Tigré. In Robert Hetzron (ed.), *The Semitic languages*, 446–456. London & New York: Routledge.

Rose, Sharon. 2006. Durational conditions on Endegeň gemination. In Siegbert Uhlig (ed.), *Proceedings of the 15th International Conference of Ethiopian Studies, Hamburg July 20–25, 2003*, 843–850. Wiesbaden: Harrassowitz.

Rose, Sharon. 2007. Chaha (Gurage) morphology. In Alan S. Kaye (ed.), *Morphologies of Asia and Africa. Volume 1*, 403–427. Winona Lake, Indiana: Eisenbrauns.

Rubin, Aaron D. 2010. *A brief introduction to the Semitic languages*. Piscataway, NJ: Gorgias Press.

Rundgren, Frithiof. 1955. *Über Bildungen mit š- und n-t-Demonstrativen im Semitischen: Beiträge zur vergleichenden Grammatik der semitischen Sprachen*. Uppsala: Almqvist & Wlksells.

Rundgren, Frithiof. 1959. *Intensiv und Aspektkorrelation: Studien zur äthiopischen und akkadischen Verbalsammbildung*. Wiesbaden: Harrassowitz.

Sasse, Hans-Jürgen. 1991. Aspekttheorie. In Hans-Jürgen Sasse (ed.), *Aspektsysteme*, 1–35. (Arbeitspapier Nr. 14 (Neue Folge)). Colgne: Colgne University, Institute of Linguistics.

Sasse, Hans-Jürgen. 2006. Aspect and aktionsart. In Keith Brown (ed.), *Encyclopedia of language and linguistics. Volume 1: A–Bi*, 535–538. Amsterdam: Elsevier.

Shimron, Joseph. 2003. Semitic languages: Are they really root-based? In Joseph Shimron (ed.), *Language processing and acquisition in languages of Semitic, root-based, morphology*, 1–28. Amsterdam & Philadelphia: John Benjamins.

Suter, Rafael. 2008. Converbs in Inor. In Karen H. Ebert, Johanna Mattissen & Rafael Suter (eds.), *From Siberia to Ethiopia: Converbs in a cross-linguistic perspective*, 185–220. Zurich: ASAS.

Timberlake, Alan. 2007. Aspect, tense, mood. In Timothy Shopen (ed.), *Language typology and syntactic description. Volume III: Grammatical categories and the lexicon*, 280–333. Cambridge: Cambridge University Press.

Tropper, Josef. 2002. *Altäthiopisch. Grammatik des Geʿez mit Übungstexten und Glossar*. Münster: Ugarit.

Voigt, Rainer M. 1977. *Das tigrinische Verbalsystem*. Berlin: Reimer.

Voigt, Rainer M. 1990. The gemination of the present-imperfect forms in Old Ethiopia. *Journal of Semitic Studies* 35(1). 1–18.

Voigt, Rainer M. 2000. On the irregular form yəbe in Classical Ethiopic. *Aethiopica* 3. 120–131.

Voigt, Rainer M. 2004a. Der Wegfall der Personalelemente in den Präfixkonjugationen des Semitischen. In Verena Böll, Denis Nosnitsin, Thomas Rave, Wolbert Smidt & Evgenia Sokolinskaia (eds.), *Studia Aethiopica: In honour of Siegbert Uhlig on the occasion of his 65th birthday*. Wiesbaden: Harrassowitz.

Voigt, Rainer M. 2004b. Die Entwicklung des Aspektsystems vom Ursemitischen zum Hebräischen. *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 154. 35–55.

Voigt, Rainer M. 2009a. North vs. South Ethiopian Semitic. In Sven Ege, Harald Aspen, Tefera Birhanu & Bekele Shiferaw (eds.), *Proceedings of the 16th International Conference of Ethiopian Studies*, vol. 4, 1375–1387. Trondheim: Department of Social Anthropology (NUST).

Voigt, Rainer M. 2009b. Das Präsens im Tigre. *Aethiopica* 12. 155–163.

Völlmin, Sascha. 2010. On the notion “converb” in Gumer (Gurage). *Frankfurter Afrikanistische Blätter* 19.

Wagner, Ewald. 1997. Harari. In Robert Hetzron (ed.), *The Semitic languages*, 486–508. London & New York: Routledge.

Weninger, Stefan. 2001. *Das Verbalsystem des Altäthiopischen: Eine Untersuchung seiner Verwendung und Funktion unter Berücksichtigung des Interferenzproblems*. Wiesbaden: Harrassowitz.

Weninger, Stefan. 2011a. Ethio-Semitic in general. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 1114–1123. Berlin: De Gruyter Mouton.

Weninger, Stefan. 2011b. Old Ethiopic. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 1124–1142. Berlin: De Gruyter Mouton.

Weninger, Stefan. 2011c. Reconstructive morphology. In Stefan Weninger (ed.), *The Semitic languages: An international handbook*, 151–178. Berlin: De Gruyter Mouton.

Weninger, Stefan. 2014. Wandering along the border of finiteness: The Gəʿəz and Tigrinya converb(s) in diachronic perspective. In Ronny Meyer, Yvonne Treis & Azeb Amha (eds.), *Explorations in Ethiopian linguistics: Complex predicates, finiteness and interrogativity*, 283–295. Wiesbaden: Harrassowitz.

Wetter, Andreas. 2007. Converbs in Argobba. *Frankfurter Afrikanistische Blätter* 19. 99–113.

Wetter, Andreas. 2010. *Das Argobba: Eine deskriptive Grammatik der Varietät von Shonke und T'ollaha (Zentraläthiopien)*. Köln: Köppe.