

**FULL-LENGTH ARTICLE****Typology and Structure of Basic-level Activities in Afaan Oromoo**Eba Teresa Garoma<sup>1\*</sup> and Baye Yimam<sup>2</sup><sup>1</sup>Department of English Language and Literature, Jimma University, Ethiopia<sup>2</sup>Department of Linguistics and Philology, Addis Ababa University, Ethiopia**\*Corresponding Author:** [ebateresa@gmail.com](mailto:ebateresa@gmail.com)**ABSTRACT**

In this study, we examined the typology and structure of basic-level activity, which is one of the five eventuality types (the others being stative, achievement, semelfactive and accomplishment) in Afaan Oromoo. Accordingly, we use the three temporal features (dynamicity, durativity and atelicity) and verb constellations of clauses to identify and describe each subclass of the situation aspect. These are claimed to denote the state-of-affair based on perceptual and cognitive abilities. Purposive sampling technique was used to collect data from written web corpora of different genres. These corpora were developed by The HaBit Project and Ethiopian Language Technology Group in 2016. Afaan Oromoo textbooks of grades 9-12 were also used as data sources. On the assumption that activities are dynamic, durative and atelic which imply no inherent final points, we have identified five subcategories: motion, emission, consumption, creation and active perception. The verbs in these subtypes of activities co-occur with agentive, non-agentive and self-agentive arguments to show various semantic readings. Regarding logical structure, we have proposed [DO' (x, [Pred' (x) or (x, y)])] as the general logical structure of the situation. In the structure, the prime DO' represents the logical operator, Pred' is to any activity verb, 'x' is agent, effector or experiencer, and 'y' is a theme, patient or stimulus. However, 'x' is the theme for one-place predicates. From the findings, we suggest that the computational aspect of logical and argument structures should be formulated to advance Afaan Oromoo a step towards natural language processing technology.

**Keywords:** Activity; Afaan Oromoo; Eventuality; Logical Structure; Situation Aspect**INTRODUCTION**

Afaan Oromoo is one of the major indigenous languages spoken in Africa. Its speakers constitute the highest proportion (34.4%) in Ethiopia (CSA, 2013; Mous, 2012, p.343). The language belongs to Lowland East Cushitic branch under Afroasiatic phylum (Grieffenow-Mewis, 2001, p.9; Baxter *et al.*, 1996; Bartels, 1989, p.13; Bender *et al.*, 1976, p.130). The main dialect clusters of Afaan Oromoo spoken in Ethiopia are Macha (Wallaga, Jimma, Illubabor, West Shewa/Shoa: Western), Tulama (North and East, and some parts of West Shewa: Central), Wallo-Rayya (Wallo and Southern Tigray: Northern), Arsi (Arsi and Bale: Southeastern), Hararge/Barentu (East and West Hararge: Eastern) and Borana (Borana and Guji: Southern). So far, there is no officially assigned or selected dialect to be the representative standard form in Afaan Oromoo. However, Macha variety has the largest number of speakers, and standardization is roughly tended to be built on this variety. Currently, the language serves in public media, education, social issues, religion, political affairs and technology (Negesse, 2015, p.7; Goshu, 2010, pp.4-6; Appleyard, 2009, p. 809; Hordofa, 2009, pp.1-5).

As regards communication, every individual in any speech community requires language to interact with others for personal life, business, education, and any for other situation. Whatever happens or occurs in encyclopedic world to be described by language is termed as eventuality or state-of-affair in linguistics and philosophy. In denoting or expressing eventuality, we need to categorize it into stative, achievement, activity, accomplishment and semelfactive on the basis of the temporal features, such as

dynamicity, telicity and durativity. Semantically, these features form three contrastives: static versus dynamic, telic versus atelic and durative versus instantaneous. Despite these contrasts, the temporal features can be expressed by using a plus or minus signs as  $\pm$ static,  $\pm$ telic,  $\pm$ durative or  $\pm$ dynamic,  $\pm$ atelic,  $\pm$ instantaneous (Rothstein, 2004, p.44; Smith, 1997; Dowty, 1976).

Activities are one of the five eventuality types. Linguistically, they involve categories like verbs, verb phrases or clauses which are of atelic, dynamic and durative processes that involve physical or mental actions. They are processes that can be analyzed into stages. They require expressions like “walk in the park”, “laugh”, “revolve”, “read books”, “eat oranges”, etc., which terminate or stop, but they do not finish as the notion of completion is irrelevant to such processes. They have arbitrary endpoints, which are bounded temporally since their endpoints do not follow from the structure of the eventuality. Within activities, there are sub-activities which are in part-whole relations of cumulative activities, i.e., any sub-activity has the same nature as the main activity. For example, if “John runs for 5 minutes”, his running on each of the temporal line (at first, second, fifth minute), his running either alone or with friends, and the speed of his running within the time frame are asserted as the activity of “run” cumulatively; any part of the process is of the same nature as the whole, hence homogeneous (Rothstein, 2004; Vendler, 1967, p.133). In activities, the terminal points involve a change to and from a state of rest.

Basic-level activities are eventuality types which are not morphologically or syntactically derived from any other structure but are semantically prototypical. Smith (1997, p.14) classified basic-level activities into two sub-classes. The first involves processes which are unlimited in principle. For example, in “sleeping, pushing a table or laughing”, despite the homogeneity of the sub-activities, the actions are continuous up to their temporal terminal points. The second class has several internal stages. In “eating oranges”, there are repetitions of actions of eating the oranges till the last temporal point. Hence, activities have terminal points, but not inherent endpoints. In this paper, thus, we treat all conceptual notes elaborated so far to describe the typology and structure of activities in Afaan Oromoo. In the description of basic-level activities in Afaan Oromoo, the basic theoretical models and principles of Role and Reference Grammar (RRG) are adopted because of their relevance to the semantic properties of verbs and other predicating elements in the description of the typology of eventuality (state-of-affair) (Van Valin and LaPolla, 1997; Van Valin, 1986, 1993, 2004, 2005). In RRG, language is a system of communication, so it should be approached in terms of communicative functions of grammatical structures. The model considers grammar as a system which is only understood and described with reference to its semantic roles. Thus, it is the structural-functional theory of grammar.

In the RRG model, there are theoretical concepts, such as logical structure, semantic macrorole, thematic relation, etc. to represent semantic-syntactic structures of any language. The logical structure is a systematic way of representing the meanings of syntactic structures and interpretation of their lexical items. Thus, it is a means of reducing similar and bulky linguistic expressions into a simple structure. It also shows the logical relationship between constituent elements. On the other hand, semantic macroroles link logical structures and syntactic repetitions. The name macrorole is given to the semantic role because several thematic relations are subsumed under actor and undergoer. Hence, there is Actor-Undergoer Hierarchy to systematize the subordinate thematic relations of each semantic macrorole. Thematic relations (often called thematic roles) are roles of arguments of verbs in eventuality or state-of-affairs. They are generalizations made across verb-specific semantic roles. RRG uses thematic relations and their generalized counterparts called semantic macroroles to show the syntax-semantics interface (Van Valin, 2005, p.58; Van Valin and LaPolla, 1997). In this study of Basic-level activities in Afaan Oromoo, thus, we employ these representations to show the typology and structure of eventuality.

Several scholars, such as Negesse (2015), Girma (2014), Olani (2014), Blažek (2010), Yabe (2007), Goshu and Meyer (2003, 2006), Griefenow-Mewis (2001), Hordofa (1996, 2005, 2007, 2009), Nefa (1988), Llorett (1987, 1989, 1997), Owens (1985), Stroomer (1984, 1995), Heine (1981), Yimam (1981, 1986, 1987, 1988), Gragg (1976) and many more have conducted linguistic studies on Afaan Oromoo. These have contributed to the structural and typological aspects of the language, such as phonology, morphology, syntax, grammar and dialectology. In addition, there have been some studies on the semantics of adpositions, the constructions of motion eventuality and aspect/tense of the

language (Mazengia, 2016; Goshu and Meyer, 2008; Adola, 2007; Goshu, 2006, 2007, 2010). Except for Goshu (2010), which is a thorough investigation of the semantics of frontal adpositions, the semantics and semantics-syntax interface of the language have not been investigated. Therefore, this study fills in the gaps identified in the semantic classification of verbs. Accordingly, the typology and structure of basic-level activities in Afaan Oromoo are examined in this study. Thus, the main objective of this study is describing the typology of basic-level activities encoded in Afaan Oromoo and determining their structure. The specific objectives of the study are identifying the subtypes of basic-level activities in Afaan Oromoo, and formulating the logical structure of basic-level activities in the language.

## MATERIALS AND METHODS

This study is purely qualitative. It is based on corpus-driven data as one of its sources. It utilizes relevant clauses (sentences) which were collected and elicited from Afaan Oromoo written web corpora. Afaan Oromoo written web corpus has been crawled and developed by The HaBit Project and Ethiopian Language Technology Group in 2016 and displayed on the Internet (<http://tekstlab.uio.no/ethiopia/>). In the corpus, there are many genres, such as political texts, literary prose, religious issues, social and economic discussions, sport and others. Clauses having verbs with their schematic meanings for each situation aspect/type were excerpted and categorized under the relevant class of situation aspects in Afaan Oromoo. These sample clauses were selected based on the relevance of their verbs to the basic-level activities of eventuality. For this purpose, we employ a purposive sampling technique. The samples, thus, provided enough information to identify the types and structures of eventuality, including derived-level situation aspects. For viewpoint aspects, clauses with verbs referring to each viewpoint aspect (perfective and imperfective) were taken as samples for analysis. Afaan Oromoo textbooks of grades 9-12 were the other data sources. The four textbooks were prepared by the Ministry of Education (MOE) and Oromia Education Bureau in 2013. They are organized incorporating several chapters under which there are lessons related to language skills, literature, vocabulary and grammar. As the main objective of this study is the investigation of the typology and structure of eventuality, grammar contents are selected from each textbook for elicitation and description using purposive sampling.

The data extracted from the corpora and the textbooks were supported by conducting group discussions (informant tests or judgments) and introspections. Accordingly, native speakers of Macha (Western) dialect of Afaan Oromoo were provided with sample clauses for interpretation and crosschecking, including judging the intelligibility and acceptability of the structures among speakers of the language. Besides, the resource persons were requested to differentiate the meanings of clauses with similar verbs through the addition of constituents, such as adverbials, arguments, etc. Because of this, 12 Afaan Oromoo native speakers from Ambo, Jimma and Nekemt areas with an equal number of representations participated as resource persons. From these, 6 are non-educated and another 6 are college and university graduates. The selection of the two groups minimizes the influence of second/foreign language and lexical/syntactic borrowing. To triangulate the data obtained from the corpora, textbooks and the native speakers, we used introspections and added more information for better development of the discussion. In the process of crosschecking, we have made significant modifications of the data (clauses) from the textbooks and the web corpora based on informants' judgment, intuitions and mutual intelligibility.

Elicitation and group discussions were used as they are highly useful for getting the expected results of the linguistic descriptions of the selected texts. Accordingly, the elicited sample clauses were categorized into situation aspects/types, so the key informants (native speakers) discussed on them. Also, native speakers were provided with sample clauses for detail, and further elicitation and description of meanings of eventuality in the language. The refined data of the sample structures were grouped into different subcategories of basic-level activities. These were presented and analyzed categorically for ease of presentation, description and interpretation. In the study, the clauses/utterances which describe similar types of activity were categorized based on prototypes and domains of their verbs. Then, the clauses were presented and described by using appropriate

morphological annotations, glossing and translation. In addition, the structure of activity is indicated by using logical structures of lexical representation proposed by RRG theory.

The following are acronyms of the metalinguistic expressions which are used in the data presentation and interpretation under results and discussion section.

### List of Acronyms

1PL	First person plural
3FS	Third person feminine
3PL	Third person plural
ABL	Ablative
CVB	Converb
DAT	Dative
DEF	Definitive
FOC	Focus
FS	Feminine singular
IMPF	Imperfective
LOC	Locative
LS	Logical structure
LSC	Layered structure of clause
MID	Middle
M-intransitive	Macrorole intransitive
M-transitive	Macrorole transitive
M-transitivity	Macrorole transitivity
NOM	Nominative
PFV	Perfective
PL	Plural
POSS	Possessive
PRED'/Pred'	Predicate
RDP	Reduplication
RRG	Role and Reference Grammar
SG	Singulative

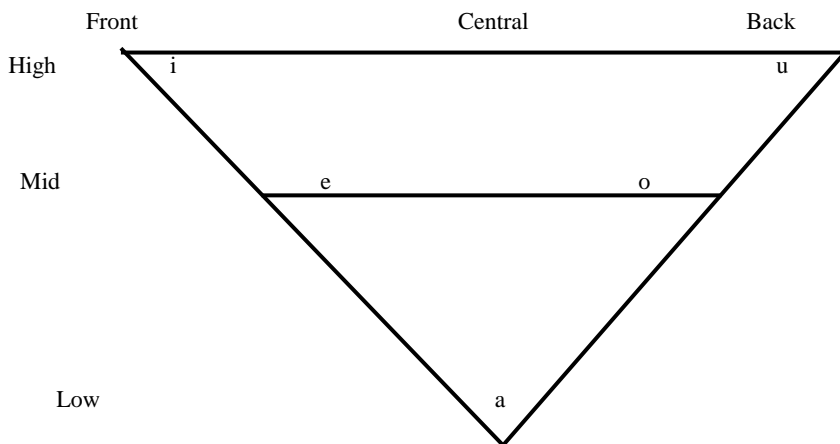
### Phonemic Inventory of Afaan Oromoo

Table 1 shows that Afaan Oromoo has twenty-seven consonant sounds. Those in brackets occur in loan words. The symbols in the left corner show voiceless consonants, and those in the right corner show voiced ones.

**Table 1.** The consonants phonemes in Afaan Oromoo

Manner of Articulation	Place of Articulation											
	Bilabial		Labio-dental		Alveolar		Alveo-palatal	Palatal		Velar	Glottal	
Plosive	(p)	b			t	d				k	g	ʔ
Implosive						ɗ						
Fricative			f	(v)	s	(z)	ʃ					h
Affricate								ʧ	ʤ			
Ejective	pʼ				tʼ			ʧʼ		kʼ		
Nasal		m				n			ɲ			
Lateral						l						
Trill						r						
Approximant		w							j			

Fig. 1 represents the five vowel phonemes in Afaan Oromoo. All of them have long counterparts which can be indicated by doubling the symbols.



**Fig. 1.** The five vowel phonemes in Afaan Oromoo

## RESULTS AND DISCUSSION

### Typology of Basic-level Activities

Activities express dynamic, atelic and durative state-of-affairs. They are cumulative and uncountable and thus show non-finite termination. They have affected themes or patients in internal argument positions. The predicates involve stretched time in which a process comes to exit. The initial boundary is either known or unknown, but the inherent endpoint is never indicated. Activities intuitively require force/energy with temporal duration to cause them. They are either undertaken intentionally and volitionally by human agents (agentive) or are expressed by non-agentive verbs which require non-human entities as their causers. Despite occurring over time, activities have no temporally marked boundaries or inherent endpoints (Van Valin and LaPolla, 1997, p.153). In Afaan Oromoo, examples of activities are given below.

- (1) a. seenaa-n            dirree            keessa            fiig-t-e [fiigde]<sup>1</sup>  
 Sena-NOM            field            in            run-3FS-PFV  
 ‘Sena ran in the field.’
- b. daawwit            burtukaanii            jaat-e  
 Dawit.NOM            orange            eat-PFV  
 ‘Dawit ate an orange.’
- c. kitaaba            k’ulk’ulluu            lallabuu            deem-n-e  
 book            holy            to\_preach            go-1PL-PFV  
 ‘We went to preach the Bible.’
- d. barii-n            teessoo            diib-e  
 Bari-NOM            chair            push-PFV  
 ‘Bari pushed a chair.’
- e. ?onesmoos            kitaaba            barress-ee            tur-e  
 Onesmos            book            write-CVB            was-PFV  
 ‘Onesmos had written book.’

The first example, (1a), describes that the argument, “seenaa” ‘Sena’<sup>2</sup> did the act of running in the field. This activity requires time and energy as it refers to movement from one position to another. However, except running, the destination is not identified; hence, the movement is atelic. Correspondingly, (1c-d) describe situations where the destinations or endpoints of movements of “deem-” ‘go’ and “diib-” ‘push’ are not indicated. On the other hand, in (1b&e), the verbs are “jaat-” ‘eat’ and “barreess-” ‘write’. However, the internal arguments “burtukaanii” ‘orange’ and “kitaaba” ‘book’ are bare (generic) plurals which are not numerically quantified. Since such internal arguments refer to non-quantified entities, the situations are indefinite to these extents. Thus, situations/activities have no end, goal or result. On the M-transitivity and agentivity properties of verbs in the cores of the Layered Structure of Clauses (LSCs), there are different types in Afaan Oromoo, which we discuss in the next subsection.

### Motion Activities

Verbs constitute the core of LSCs in motion activities. They denote activities in particular directions or locations (Ramchand, 2007; Levin and Rappaport-Hovav, 1995, p.91). In Afaan Oromoo, motion activities are of three types according to the semantic natures of their verbs: non-agentive, self-agentive and agentive. Non-agentive and self-agentive motion activities have predicates with M-

<sup>1</sup> The data are presented using International Phonetic Alphabet (IPA) which is appended as table and figure in this study.

<sup>2</sup> In data presentation throughout this paper, double quotation (“ ”) denotes the target language whereas single quotation (‘ ’) encloses equivalent English translation/version.

intransitive self-propelled verbs, whereas agentive activities have M-transitive verbs. The semantic features of these motion activities are presented in the examples below.

In non-agentive motion activities, the external arguments undergo movements non-volitionally and unintentionally since they are non-humans, such as “raammoo” ‘worm’, “loon” ‘cattle’, “k’illeensa” ‘wind’, “laga” ‘river’, “kubbaa” ‘ball’, etc., as in (2) below.

- (2) a. raammoo-n            dök’k’ee            keessa-a            mujjuuk’-t-i [mujjuuk’t’i]  
 worm-NOM            mud            in-ABL            wriggle-3FS-IMPF  
 ‘Worm wriggles in mud.’
- b. loon                    jaa?-an-i  
 cattle.NOM            flow-3PL-PFV  
 ‘Cattle streamed/moved out of their herd.’ Lit. ‘Cattle flew.’
- c. k’illeens-i            bubbis-e  
 wind-NOM            blow-PFV  
 ‘Wind blew.’
- d. lag-ni                    ni-jaa?-a  
 river-NOM            FOC-flow-IMPF  
 ‘River flows.’
- e. kubbaa-n            konkolaat-e  
 ball-NOM            roll-PFV  
 ‘A ball rolled.’

The verbs in (2) are “mujjuuk’-” ‘wiggle’ (2a), “jaa?-” ‘flow’ (2b&d), “bubbis-” ‘blow’ (2c) and “konkolaat-” ‘roll’ (2e). They do not require volitional arguments because the causes of the activities are not formally manifested in the structures. Besides, the LSCs do not refer to any endpoints of the arguments except that they show processes of moving in temporal space. Hence, situations are infinite in the temporal world. Other verbs, such as “rom?-” ‘tremble’, “guluf-” ‘gallop’, “sussuk-” ‘trot’, “barris-” ‘fly’ and “muŋ’uŋ’aat-” ‘slide’ mainly encode non-agentive motion activities in the language.

The activities in (2a-e) above do not imply inherent goals of the arguments, but they express movement in temporal spaces. Besides, the starting point is not known in some verbs, such as “mujjuuk’-” ‘wiggle’ and “bubbis-” ‘blow’. As the verbs express the displacement of arguments, the theme is assigned as the only thematic relation. However, the noun “dök’k’ee” ‘mud’ in (2a) serves as locative. In semantic macrorole assignment, undergoer is the assigned macrorole.

On the other hand, the external arguments in LSCs act with volition to express self-agentive motion activities as shown below.

- (3) a. gurb-ijjif-i                      karra              ba?-e  
 boy-SG.DEF-NOM                  gate              go\_out-PFV  
 ‘The boy went through the gate.’
- b. dargagg-oot-ni                  mana              bira              darb-an-i  
 youth-PL-NOM                  house              side              pass-3PL-PFV  
 ‘Youths passed beside the house.’
- c. lol(t)-oot-ni                      diina-tti                  naanna?-an-i  
 soldier-PL-NOM                  enemy-LOC              encircle-3PL-PFV  
 ‘Soldiers encircled the enemy.’ Lit. ‘Fighters encircled the enemy.’
- d. ?isaan              ?ergaa              ?orma(a)-f              k’ofa              fiig-an-i  
 they              message              other-DAT              alone              run-3PL-PFV  
 ‘They only served others.’  
 Lit. ‘They ran only to get the message for others.’

The situations in (3) signify that the external arguments undergo movement in a particular direction. The arguments are “gurbaa” ‘boy’ (3a), “dargaggoota” ‘youths’ (3b), “loltota” ‘soldiers’ (3c) and “?isaan” ‘they’ (3d). They participate in the activities with intention and volition. The self-agentive verbs are “ba?-” ‘go out’, “darb-” ‘pass’, “naanna?-” ‘encircle’ and “fiig-” ‘run’ in that order.

Since the predicates do not show any final temporal points, the semantics of the activities excludes the goals of the motions. Similar to non-agentives, self-agentive activities have themes in core arguments. However, there are peripheral arguments (non-arguments) which show the direction or location of arguments, as in (3a&c). In addition, the undergoer is the only semantic macrorole of the self-agentive activities. Contrary to LSCs in (3), there are agentive activities in which causers/initiators of the motions engage, as shown in (4) below.

- (4) a. boruu-n                      ?eeboo                  darb-at-e  
 Boru-NOM                      spear                  pass-MID-PFV  
 ‘Boru threw spear.’
- b. mootummaa-n                  bijja-a                      dɜara                  ?ari?-e  
 government-NOM                  country-ABL              them                  deport-PFV  
 ‘Government deported them out of the country.’
- c. jooaas                      konkolaataa                  ?oof-a  
 Yonas.NOM                      car                      drive-IMPF  
 ‘Yonas drives a car.’
- d. ?isaan                      ?ansaada                  diib-an-i  
 they                      shelf                      push-3PL-PFV  
 ‘They pushed the shelf.’

The activities in (4) are carried out by the external arguments, “boruu” ‘Boru’ (4a), “mootummaa” ‘government’ (4b), “jooaas” ‘Yonas’ (4c) and “?isaan” ‘they’ (4d), who participate with intention and volition. They act on the internal arguments, “?eeboo” ‘spear’, “dɜara” ‘them’, “konkolaataa” ‘car’ and “?ansaada” ‘shelf’, respectively. The internal arguments are caused to move in a certain direction across temporal space. However, the goals or destinations of the movements are not inherently identified. The verbs are M-transitive, so they assign agent to the external and theme to the internal arguments. The actor and undergoer are assigned macroroles of agent and theme in that order.



### Emission Activities

In this subsection, we present activities which involve emission verbs in their LSCs. Emission activities engage external arguments to release certain entities, such as sound, light, smell or substance (Levin and Rappaport-Hovav, 2005, p.91; Perlmutter, 1978, p.163). Such activities are non-agentives or self-agentives and are seldom called internally-caused activities. The semantic classes of the arguments in LSCs are four in Afaan Oromoo: sound, light, smell and substance.

### Sound emission

Sound emission involves M-intransitive verbs. They can be used in the sense of manner-of-motion, and are unaccusatives due to their non-occurrence in counter-passive constructions. In most cases, they involve animate or inanimate emitters as the only core arguments (Levin and Rappaport-Hovav, 2005). Such arguments do not change. The examples below express self-agentive sound emission activities.

- (5) a. hirmaat(t)-ot-ni                      walgah-iffja-a                      ni-waſʼ-an-i  
 participant-PL-NOM                      meeting-SG.DEF-POSS                      FOC-yell-3PL-PFV  
 ‘Participants of the meeting yelled.’
- b. haad-ni [haati]                      koo                      hed-tuu                      ʔijj-(i)t-e  
 mother                      my                      much-FS                      shout-3FS-PFV  
 ‘My mother shouted a lot.’
- c. daaʔim-ni                      kun                      halkan                      halkan                      ni-booh-a  
 baby-NOM                      this                      night                      night                      FOC-cry-IMPF  
 ‘This baby cries every night.’
- d. geetuu-n                      halkan                      guutuu                      ni-kurruuf-a  
 Getu-NOM                      night                      entire                      FOC-snore-IMPF  
 ‘Getu snores all night.’ ‘Lit. Getu snores the entire night.’

The LSCs in (5) express sound emission. The external arguments intentionally emit sounds in (5a-c), but unintentionally in (5d). So, one can “waſʼ-” ‘yell’, “ʔijj-” ‘shout’ and “booh-” ‘cry’ volitionally, while one “kurruuf-” ‘snore’ non-volitionally since the emitter is in a state of unconsciousness during (sound) emission. The sound emission verbs are unaccusatives. In Afaan Oromoo, their counter-passive constructions are ungrammatical. Given that the LSCs have a single core argument, they have also a single thematic role of the effector. In Actor-Undergoer Hierarchy of RRG theory, the effector is found in the left-most edge, so it is inclined to the actor.

In contrast, there are non-agentive activities of non-humans (such as animals) that produce sounds. These are illustrated below.

- (6) a. korommii-n                      bookkis-an-i  
       bull.PL-NOM                    bellow-3PL-PFV  
       ‘Bulls bellowed.’
- b. harr-oot-ni                    halaak-an-i  
       donkey-PL-NOM                bray-3PL-PFV  
       ‘Donkeys brayed.’
- c. saa-wwan                    marʔat-an-i  
       cow-PL                        moo-3PL-PFV  
       ‘Cows moored.’
- d. leenɣ̣-i                        bosona-a                    barood-e  
       lion-NOM                    forest-ABL                roar-PFV  
       ‘Lion roared in/from forest.’

In (6a-d), the verbs of sound emission take animal emitters as their core arguments. The emission is done by instinct since the emitters are non-volitional. Similar to self-agentive verbs presented in (5), the verbs in (6) are unaccusatives and have no counter-passives. The external arguments are effectors in their thematic roles and actor in their semantic macroroles.

There are some other verbs which express similar activities, such as “juus-” ‘laugh’, “dut-” ‘bark’ and “korris-” ‘chatter, gibber’. The emitters (effectors) are animals, such as “waraabessa” ‘hyena’, “saree” ‘dog’, “weennii” ‘colobus monkey’, “korma” ‘bull’, “harree” ‘donkey’, “saʔa” ‘cow’ and “leenɣ̣a” ‘lion’. They emit sounds instinctly; hence, the emission activities are non-agentive. The verbs are restricted in their preferences to the above arguments.

In RRG theory, verbs of sound emission have no temporal inherent endpoints. They have self-agentive and non-agentive variants which bear an effector thematic role. The verbs in (6) do not allow agentive and passive counterparts. Generally, sound emission verbs take human and animal agents to express activity situations.

### Light emission

Verbs of light emission prefer inanimate external arguments. Like verbs of sound emission, these show restrictions in their arguments. While sound emission verbs allow self-agentive variants, light emission verbs are restricted to non-agentive variants in a small number of verbs (Levin and Rappaport-Hovav, 2005). There are a few light emission verbs in Afaan Oromoo.

The following are LSCs with such verbs.

- (7) a. daawwitii-n      ʃʼalak'k'is-e  
mirror-NOM      sparkle-PFV  
'Mirror reflected.'
- b. ʔibsaa-n      ʔif-e  
light-NOM      shine-PFV  
'Light shined.'
- c. ʔabidd-i      bobaʔ-e  
fire-NOM      blaze-PFV  
'Fire blazed.'
- d. boson-ni      baalee      gub-at-e  
forest-NOM      Bale      burn-MID-PFV  
'Forest of Bale burnt.'

Verbs of light emission describe intrinsic properties of external arguments which are the only arguments in the LSCs of (7a-d). These verbs show inchoative readings. They have internally caused properties, so they are M-intransitive which prefer inanimate entities as their arguments. The thematic roles are effectors. Actors neutralize effectors in the Actor-Undergoer Hierarchy. As the occurrence of the situations is temporally unbounded or unrestricted, light emission activities reveal atelic features.

#### Smell emission

In the third category of emission verbs, we have LSCs with smell emission verbs. These are two categories: good smell ("ʔurgaaʔ-" 'scent') and bad smell ("t'iraaʔ-" 'stink'). The verbs describe the result of the internal characteristics of the entities. The following examples show smell emission.

- (8) a. ʔittoo-n      ʔurgaaʔ-e  
stew-NOM      scent-PFV  
'Stew scented.'
- b. rak'-ni      t'iraaʔ-e  
dead\_body-NOM      stink-PFV  
'A dead body stank.'

Like sound and light emission, smell emission verbs in (8a&b) have the same LSCs regardless of the nature of the emitters. The LSCs have a single external argument, which is the source of the properties encoded in the verbs (nucleus). The argument has the thematic role effector. A single semantic macrorole of an actor is assigned to smell emission activities.

#### Substance emission

The fourth category of emission verbs relates to substance emission. Such verbs are different from sound, light and smell emission. They have variants of agentive, self-agentive and non-agentive readings as indicated in 9(a-d).

- (9) a. daaʔim-ni                      finʃʔaan                      finʃʔaaʔ-e  
 baby-NOM                      urine                      urinate-PFV  
 ‘A baby urinated.’
- b. ballatʔaa-n                      gorora                      tuf-e  
 Belete-NOM                      saliva                      spit-PFV  
 ‘Belete spat saliva.’
- c. gurb-iʃʃ-i    ni-balakʔkʔam-e  
 boy-SG.DEF-NOM    FOC-vomit-PFV  
 ‘The boy vomited.’
- d. saʔa-ni [saani]                      keeɲna                      dʒabbii                      ɗal-t-e  
 cow-NOM                      our                      calf                      give\_birth-3FS-PFV  
 ‘Our cow gave birth to calf.’

LSCs in (9) express substance emission activities. The verbs “finʃʔaaʔ-” ‘urinate’, “tuf-” ‘spit’, “balakʔkʔam-” ‘vomit’ and “ɗal-” ‘give birth’ are M-transitive, and hence involve emitter and emitted entities. The external arguments are “daaʔima” ‘baby’, “ballatʔaa” ‘Belete’, “gurb-iʃʃa” ‘the boy’ and “saʔa” ‘cow’, whereas the internal arguments are “finʃʔaan” ‘urine’, “gorora” ‘saliva’, “hookʔkʔisa” ‘vomit’ and “dʒabbii” ‘calf’ parallel to the verbs. The argument “hookʔkʔisa” ‘vomit’ is inferred from the nature of the verb and external argument of the LSCs in (9c). In substance emission, the thematic role of the external argument is effector, and that of the internal argument is a theme for (9a&b), and patient for (9c&d). These thematic relations have actor and undergoer macroroles.

### Consumption Activities

Consumption involves the intake of entities/objects through the opening of the mouth into bounded space, such as the stomach. The verbs are M-transitive and hence require two participants (core arguments): the consumer and the consumed. In the activity, the verbs trigger non-quantified internal arguments (Levin and Rappaport-Hovav, 2005). The LSCs in such situations express events and sub-events simultaneously. Thus, consumption activities show the atelic features of eventuality. Afaan Oromoo has the following examples of such activities.

- (10) a. loon                                      biʃaan                                      ɗug-an-i  
 cattle.NOM                                      water                                      drink-3PL-PFV  
 ‘Cattle drank water.’
- b. gaangee-n                                      marga                                      ɗeed-a  
 mule-NOM                                      grass                                      feed-IMPF  
 ‘Mule feeds on grass.’
- c. tulluu-n                                      daabboo                                      jaat-e  
 Tullu-NOM                                      bread                                      eat-PFV  
 ‘Tullu ate bread.’
- d. ʔadurree-n                                      ʔaannan                                      ɗug-t-e [ɗugde]  
 cat-NOM                                      milk                                      drink-3FS-PFV  
 ‘The cat drank milk.’

The M-transitive verbs “ɗug-” ‘drink’ (10a&d), “ɗeed-” ‘feed’ (10b) and “jaat-” ‘eat’ (10c), along with their external and internal arguments, constitute the cores in their LSCs. The events and sub-events indicate a change in state-of-affairs of at least the internal arguments. For example, the external arguments “loon” ‘cattle’ and “ʔadurree” ‘cat’ “ɗug-” ‘drink’ the internal arguments “biʃaan” ‘water’ and “ʔaannan” ‘milk’ in (10a&d). There is a state of increase in the size of the stomach of the consumers (“loon” ‘cattle’ and “ʔadurree” ‘cat’) and state of decrease in the amount of the consumed (“biʃaan” ‘water’ and “ʔaannan” ‘milk’). However, since the quantity of the internal arguments, that is,

the water and the milk is not specified, the act of drinking them is temporally infinite, which designates an atelic feature. In the LSCs, the internal arguments “biḵaan” ‘water’, “marga” ‘grass’, “daabboo” ‘bread’ and “ʔaannan” ‘milk’ are not determined quantitatively. They are generic, so they do not show inherent endpoints. The thematic roles of the external arguments are agents, and those of the internal arguments are patients. Hence, they correspond to the two semantic macroroles: actor and undergoer.

### Creation Activities

In temporal space, entities have their own life span of existence. They come at some time and go out at another time of expiry. However, there are a few abstract propositions which are universally true or eternal. The entities which live and perish in time are non-eternal, and those which exist at all times regardless of their temporal space are eternal. In both cases, the situations are expressed by verbs that denote new entities which come to exist in eventuality (Levin and Rappaport-Hovav, 2005).

The situations did not exist prior to their time of creation, which is a result of activities. In view of this, the participants are the causer and causee arguments (Levin and Rappaport-Hovav, 2005; Perlmutter, 1978). On the basis of the semantic nature of their internal core arguments, creation activities fall into two subclasses. They consist of the creation of physical objects and performances, which are illustrated below.

- (11) a. kumafii-n                      furraabii                      hodḏ-(i)t-i  
Kumashi-NOM                      sweater                      knit-3FS-IMPF  
‘Kumashi knits sweater.’
- b. namoo-n                      kitaaba                      barreess-a  
Namo-NOM                      book                      write-IMPF  
‘Namo writes book.’
- c. taammiruu-n                      man(n)-een                      ga(g)-gaarii                      ʔidḵaar-e  
Tamiru-NOM                      house-PL                      RDP-good                      build-PFV  
‘Tamiru built nice houses.’
- d. ʔitooop’ijaa-n                      konkolaataa                      ʔoomij-t-e  
Ethiopia-NOM                      car                      manufacture-3FS-PFV  
‘Ethiopia manufactured car.’

Broadly speaking, (11a-d) has LSCs with the M-transitive verbs “hodḏ-” ‘knit’, “barreess-” ‘write’, “ʔidḵaar-” ‘build’ and “ʔoomij-” ‘manufacture’, which require two arguments: causer and causee. The external arguments, such as “kumafii” ‘Kumashi’, “namoo” ‘Namo’, “taammiruu” ‘Tamiru’ and “ʔitooop’ijaa” ‘Ethiopia’ are initiators of the activities. The internal arguments “furraabii” ‘sweater’, “kitaaba” ‘book’, “manneen” ‘houses’ and “konkolaataa” ‘car’ describe non-delimited objects which are generic and quantitatively unspecified. Consequently, the activities are temporally infinite.

The thematic roles of the external and internal arguments are agent and patient, respectively. They are also assigned the macroroles, actor for agent, and undergoer for a patient. The generic nature of the undergoers indicates unbounded temporal space, which is the triggering factor for the activities. The verbs are M-transitive that involve the intentional and volitional participation of the external arguments and have passive counterparts. In sum, verbs of creation cause physical objects to come to exist at some temporal and spatial location.

On the other hand, performance verbs express the coming into existence of previously non-existing eventuality. They show the acts of initiators in different contexts, such as artistic and religious occasions as shown in 12(1-d).

- (12) a. Jaareed                      fakkii                      bojj'-e  
 Yared.NOM                      picture                      design-PFV  
 'Yared designed/painted picture.'
- b. Buruuk                      sirba                      sirb-e  
 Buruk.NOM                      song                      sing-PFV  
 'Buruk sang song.'
- c. dzaalannee-n                      walaloo                      kalak'-t-e                      [kalak't'e]  
 Jalane-NOM                      poem                      create-3FS-PFV  
 'Jalane created poem.'
- d. dargagg-oot-ni                      diijjijisa                      ragad-an-i  
 youth-PL-NOM                      dance                      perform-3PL-PFV  
 'Youths performed a dance.'

Similar to the verbs in (11), the verbs of creation in (12a-d), "bojj'-" 'design', "sirb-" 'sing', "kalak'-" 'create' and "ragad-" 'dance', express activities which are temporally unbounded (atelic). The verbs take "jaareed" 'Yared', "buruuk" 'Buruk', "dzaalannee" 'Jalane' and "dargaggoota" 'youths' as external arguments. They initiate the performance and act with intention/volition on internal arguments "fakkii" 'picture', "sirba" 'music', "walaloo" 'poem' and "diijjijisa" 'dance'. These arguments refer to abstract entities (performances) which are brought about through verbal acts. The thematic roles (agents and patients) and the semantic macroroles (actor and undergoer) are similar to those in (11).

### Active Perception Activities

Activities of active perception have agent arguments. The external argument participates actively in perceiving the internal argument which is a physical object in temporal location. The verbs in active perception are M-transitive and they require external and internal arguments (Rothmayr, 2009, p.101; Levin and Rappaport-Hovav, 1995, pp.249-250; Dowty, 1979, p.205).

There are four active perception verbs in Afaan Oromoo: "ʔarg-" 'see/look at', "daggeeffat-" 'listen to', "dandam-" 'taste' and "fuunfat-" 'smell'. The last two verbs express autobenefactive forms, but the pseudo-roots "daggeeff-" and "fuunf-" have no clearly identified meanings. The verbs encode activities which are dynamic and durative in their temporal features, as in the following.

- (13) a. tolasaa-n                      barat(t)-oota                      ʔarg-e  
 Tolasa-NOM                      student-PL                      see-PFV  
 'Tolasa saw students.'
- b. ʔabdiisaa-n                      jittoowwan                      ʔisaan-ii                      fuunfat-e  
 Abdisa-NOM                      perfume-PL                      they-POSS                      smell-PFV  
 'Abdisa smelled their perfumes.'
- c. soorettii-n                      dangaa                      ʔitt-ijjijaa-a                      dandam-t-e  
 Soreti-NOM                      flavor                      stew-SG.DEF-POSS                      taste-3FS-PFV  
 'Soreti tasted the flavor of the stew.'

The LSCs in (13) show situations which are unbounded. As long as the internal arguments are generic or non-quantified, the temporal features of the situations are infinite. For example, the act of "ʔarg-" 'see' by "tolasaa" 'Tolasa' in (13a) is volitionally directed to the bare plural nouns "barattoota" 'students'. Similarly, "jittoowwan" 'perfumes' in (13b) and "dangaa ʔittijjijaa" 'flavor of stew' in (13c) are all numerically unspecified internal arguments. In addition to the features of the internal arguments, the verbs "ʔarg-" 'see', "fuunfat-" 'smell' and "dandam-" 'taste' are inherently atelic because the act of perceiving terminates at some time, but not ended in temporal space.

The perceivers are animates with sense organs, such as "ʔidza" 'eye', "gurra" 'ear', "fuɓɓaan" 'nose' and "ʔarraba" 'tongue' to construct the schemes of the perceived entities in their world. The thematic



- (16)a. keessumm-oot-ni      deem-an-i  
 guest-PL-NOM          go-3PL-PFV  
 ‘The guests went.’
- b. k’illeens-i          bubbis-e  
 wind-NOM            blow-PFV  
 ‘The wind blew.’

The LSCs in (16a&b) have self-agentive verb “deem-” ‘go’ and non-agentive verb “bubbis-” ‘blow’, which are one-place motion predicates. The LS of these LSCs is the same, as shown in (17) below.

- (17)a. General LS for self-      **DO’ (x, [Pred’ (x)])**  
 /non-agentive                    x=Theme  
 Motion Activity:
- b. Clause-specific LS      DO’ (“keessummoota” ‘guests’, [“deem-” ‘go’  
 for (16a):                    (“keessummoota” ‘guests’)])  
 i. Thematic                    “keessummoota” ← Theme  
 relations:                    ‘guests’  
 ii. Semantic                  Undergoer ← Theme    1 Macrorole  
 macroroles:
- c. Clause-specific LS      DO’ (“k’illeensa” ‘wind’, [“bubbis-” ‘blow’ (“k’illeensa”  
 for (16b):                    ‘wind’)])  
 i. Thematic                    “k’illeensa” ← Theme  
 relations:                    ‘wind’  
 ii. Semantic                  Undergoer ← Theme    1 Macrorole  
 macroroles:

The general LS [DO’ (x, [Pred’ (x)])] in (17a) means, there is an activity situation denoted by DO’, where the argument ‘x’ participates, such that ‘x’ acts the predicate (Pred’). The argument is assigned theme as the only thematic role.

In (17b), the clause-specific LS has the self-agentive motion verb “deem-” ‘go’ with the argument “keessummoota” ‘guests’. The interpretation is that there is an activity situation denoted by DO’, where “keessummoota” ‘guests’ participate, such that “keessummoota” ‘guests’ “deem-” ‘go’. Similarly, (17c) has non-agentive motion verb “bubbis-” ‘blow’ with the argument “k’illeensa” ‘wind’. In both cases, the dynamic feature is represented by DO’, but there is no inherent endpoint for the change of the state, hence unbounded. As indicated in the LSs, the single argument ‘x’ of one-place activity predicate is a theme in RRG model since it brings a change in location of its state-of-affair. The general LS also applies to LSCs with sound, light and smell emission verbs, as illustrated in (18) below.

- (18)a. haad-ni [haati]          koo      hed-tuu          ?ijj-(i)t-e  
 mother-NOM            my      much-FS          shout-3FS-PFV  
 ‘My mother shouted too much.’
- b. ?abidd-i                  boba?-e  
 fire-NOM                blaze-PFV  
 ‘The fire blazed.’
- c. ?ittoo-n                  ?urgaa?-e  
 stew-NOM                scent-PFV  
 ‘The stew scented.’



In (18a-c), “ʔijj-” ‘shout’, “bobaʔ-” ‘blaze’ and “ʔurgaaʔ-” ‘scent’ are sound, light and smell emission activity verbs, respectively. They have single arguments, “haada koo” ‘my mother’, “ʔabidda” ‘fire’ and “ʔitto” ‘stew’ in that order. The LSs of these LSCs are given in (19).

- (19)a. General LS for Emission Activity: **DO’ (x, [Pred’ (x)])**  
x=Effector
- b. Clause-specific LS for (18a): DO’ (“haada koo” ‘my mother’, [“ʔijj-” ‘shout’ (“haada koo” ‘my mother’)])  
  - i. Thematic relations: “haada koo” ‘my mother’ ← Effector
  - ii. Semantic macroroles: Actor ← Effector 1 Macrorole
- c. Clause-specific LS for (18b): DO’ (“ʔabidda” ‘fire’, [“bobaʔ-” ‘blaze’ (“ʔabidda” ‘fire’)])  
  - i. Thematic relations: “ʔabidda” ‘fire’ ← Effector
  - ii. Semantic macroroles: Actor ← Effector 1 Macrorole
- d. Clause-specific LS for (18c): DO’ (“ʔitto” ‘stew’, [“ʔurgaaʔ-” ‘scent’ (“ʔitto” ‘stew’)])

The general LS for the emission verbs in (18a-c) is shown in (19a). In the LS, the logical operator DO’ indicates that the situation is activity. The argument ‘x’ has the effector role, and the Pred’ represents verbs of light, sound and smell emission. In the clause-specific LSs, (19b) has one-place predicate which takes “haada koo” ‘my mother’ as the effector. This LS is interpreted as, there is an activity situation represented by DO’, such that “haada koo” ‘my mother’ is the effector and “haada koo” ‘my mother’ “ʔijj-” ‘shout’. In (19c), the predicate is light emission verb “bobaʔ-” ‘blaze’, and the single argument is “ʔabidda” ‘fire’. The last clause-specific LS, (19d), has smell emission verb “ʔurgaaʔ-” ‘scent’, which assigns “ʔitto” ‘stew’.

The clause-specific LSs in (19b&c) are different from those in (17b&c) in that they have effector as their argument, whereas those in (17b&c) have a theme as the argument. This difference leads to variation in semantic macrorole assignment. While undergoer is the macrorole in (17), the actor is the macrorole in the latter. Contrary to LSs of activity situation with a single argument, there are LSs with two-place predicates. One of these is agentive motion activity, which involves the causing and the caused entities, as illustrated in (20) below.

- (20)a. lol(t)-oot-ni                      diina-tti                      naannaʔ-an-i  
 soldier-PL-NOM                      enemy-LOC                      encircle-3PL-PFV  
 ‘Soldiers encircled the enemy.’
- b. ʔisaan      ʔansaada                      diib-an-i  
 they          shelf                                  push-3PL-PFV  
 ‘They pushed the shelf.’

The motion verbs “naanna?” ‘encircle’ and “diib-” ‘push’ in (20a&B) necessarily require two arguments. The general and the clause-specific LSs of the clauses are described as follows.

- (21)a. General LS for Agentive Motion Activity:  
**DO' (x, [Pred' (x, y)])**  
 x=Agent/Effector, y=Theme
- b. Clause-specific LS for (20a):  
 DO' (“loltoota” ‘soldiers’, [“naanna?” ‘encircle’ (“loltoota” ‘soldiers’, “diina” ‘enemy’)])  
 i. Thematic relations:  
 “loltoota” ‘soldiers’ ← Agent  
 “diina” ‘enemy’ ← Theme  
 ii. Semantic macroroles:  
 Actor ← Agent 2 Macroroles  
 Undergoer ← Theme
- c. Clause-specific LS for (20b):  
 DO' (“?isaan” ‘they’, [“diib-” ‘push’ (“?isaan” ‘they’, “?ansaada” ‘shelf’)])  
 i. Thematic relations:  
 “?isaan” ‘they’ ← Agent  
 “?ansaada” ‘shelf’ ← Theme  
 ii. Semantic macroroles:  
 Actor ← Agent 2 Macroroles  
 Undergoer ← Theme

In the general LS above, (21a), ‘x’ refers to the agent (or often effector), and ‘y’ to the theme. The movement of the theme is caused by the agent. It means, there is an activity situation represented by DO’, such that ‘x’ moves ‘y’, or ‘x’ affects ‘y’ by moving towards it. In (21b), the motion verb “naanna?” ‘encircle’ is acted by “loltoota” ‘soldiers’ in order to control “diina” ‘enemy’. Likewise, the predicate “diib-” ‘push’ in (21c) links “?isaan” ‘they’, which is the causing argument (agent) and “?ansaada” ‘shelf’, which is the causee (theme). In both clause-specific LSs, the first argument is assigned as agent/effector and the second as theme.

In relation to agentive verbs of motion activity, there are substance emission, consumption, creation and active perception verbs, which are two-place predicates (Levin and Rappaport-Hovav, 2005). However, the thematic roles of the arguments in each subclass could vary slightly. In the examples below, we get activity situation with verbs of substance emission.

- (22) a. ballat’aa-n gorora tuf-e  
 Belete-NOM saliva spit-PFV  
 ‘Belete spitted gland.’
- b. sa?a-ni [saa-ni] kee?na d?abbii dal-t-e  
 cow-NOM our calf give\_birth-3FS-PFV  
 ‘Our cow gave birth to calf.’

The verbs “tuf-” ‘spit’ and “dal-” ‘give birth’ in (22) assign two arguments; “ballat’aa” ‘Belete’ and “gorora” ‘saliva’ to the first, and “sa?a” ‘cow’ and “d?abbii” ‘calf’ to the second. The general and clause-specific LSs for these clauses are shown in (23) below.

- (23)a. General LS for Substance Emission: **DO' (x, [Pred' (x, y)])**  
 x=Effector, y=Theme
- b. Clause-specific LS for (22a): **DO' ("ballat'aa" 'Belete', [{"tuf-" 'spit' ("ballat'aa" 'Belete', "gorora" 'gland')}]**  
 i. Thematic relations: "ballat'aa" 'Belete' ← Effector  
 "gorora" 'saliva' ← Theme  
 ii. Semantic macroroles: Actor ← Effector 2 Macroroles  
 Undergoer ← Theme
- c. Clause-specific LS for (22b): **DO' ("saʔa" 'cow', [{"dal-" 'give birth' ("saʔa" 'cow', "dʒabbii" 'calf')}]**  
 i. Thematic relations: "saʔa" 'cow' ← Effector  
 "dʒabbii" 'calf' ← Theme  
 ii. Semantic macroroles: Actor ← Effector 2 Macroroles  
 Undergoer ← Theme

The general LS in (23a) shows that the Pred' of substance emission represented by DO' assigns two core arguments; one is effector and the other is a theme. The effector is the emitter, and the theme is the emitted entity. In (23b), the predicate "tuf-" 'spit' takes "ballat'aa" 'Belete' as the effector, and "gorora" 'saliva' as the theme. Accordingly, for substance emission (DO'), there is the effector "ballat'aa" 'Belete', such that "ballat'aa" 'Belete' "tuf-" 'spit' "gorora" 'saliva'. The other LS, (23c), has "dal-" 'give birth' as its predicate, which links "saʔa" 'cow' and "dʒabbii" 'calf'. In both LSs, the effector is assigned actor, whereas the theme is undergoer. There are other activity situations with two-place predicates, such as those with consumption verbs, as in (24) below.

- (24)a. tulluu-n                      daabboo                      ʒaat-e  
 Tullu-NOM                      bread                      eat-PFV  
 'Tullu ate bread.'
- b. ʔadurree-n                      ʔaannan                      dʒug-t-e [dʒugde]  
 cat-NOM                      milk                      drink-3FS-PFV  
 'The cat drank milk.'

The verbs "ʒaat-" 'eat' in (24a) and "dʒug-" 'drink' in (24b) each assigns two core arguments. The general and clause-specific LSs of these clauses are illustrated as follows (25).

- (25)a. General LS for Consumption Activity: **DO' (x, [Pred' (x, y)])**  
 x=Agent, y=Patient
- b. Clause-specific LS for (24a): **DO' ("tulluu" 'Tulu', [{"ʒaat-" 'eat' ("tulluu" 'Tulu', "daabboo" 'bread')}]**  
 i. Thematic relations: "tulluu" 'Tulu' ← Agent  
 "daabboo" 'bread' ← Patient  
 ii. Semantic macroroles: Actor ← Agent 2 Macroroles  
 Undergoer ← Patient
- c. Clause-specific LS for (24b): **DO' ("ʔadurree" 'cat', [{"dʒug-" 'drink' ("ʔadurree" 'cat', "ʔaannan" 'milk')}]**  
 i. Thematic relations: "ʔadurree" 'cat' ← Agent  
 "ʔaannan" 'milk' ← Patient  
 ii. Semantic macroroles: Actor ← Agent 2 Macroroles  
 Undergoer ← Patient



- |         |  |                             |                             |
|---------|--|-----------------------------|-----------------------------|
| (28) a. | tolasaa-n<br>Tolasa-NOM<br>'Tolasa saw students.'      | barat(t-)oota<br>student-PL | ʔarg-e<br>see-PFV           |
| b.      | soorettii-n<br>Soreti-NOM<br>'Soreti tasted the stew.' | ʔitt-iffʃa<br>stew-SG.DEF   | dandam-t-e<br>taste-3FS-PFV |

The perception verbs “ʔarg-” ‘see’ and “dandam-” ‘taste’ in (28) refer to the intention of the perceivers towards the perceived entities. The LSs of these clauses are illustrated in (29).

- |        |                                      |  |
|--------|--------------------------------------|--|
| (29)a. | General LS for<br>Active Perception: | <b>DO’ (x, [Pred’ (x, y)])</b><br>x=Experiencer, y=Stimulus                                |
| b.     | Clause-specific LS for<br>(28a):     | DO’ (“tolasaa” ‘Tolasa’, [“ʔarg-” ‘see’ (“tolasaa” ‘Tolasa’,<br>“barattoota” ‘students’)]) |
|        | i. Thematic<br>relations:            | “tolasaa” ‘Tolasa’ ← Experiencer<br>“barattoota” ‘students’ ← Stimulus                     |
|        | ii. Semantic<br>macroroles:          | Actor ← Experiencer 2 Macroroles<br>Undergoer ← Stimulus                                   |
| c.     | Clause-specific LS<br>for (28b):     | DO’ (“soorettii” ‘Soreti’, [“dandam-” ‘taste’ (“soorettii”<br>‘Soreti’, “ʔittoo” ‘stew’)]) |
|        | i. Thematic<br>relations:            | “soorettii” ‘Soreti’ ← Experiencer<br>“ʔittoo” ‘stew’ ← Stimulus                           |
|        | ii. Semantic<br>macroroles:          | Actor ← Experiencer 2 Macroroles<br>Undergoer ← Stimulus                                   |

In (29a), the general LS of active perception is [DO’ (x, [Pred’ (x, y)])], where the operator DO’ refers to activity situation, the Pred’ to verbs of active perception, ‘x’ is the experiencer and ‘y’ is the stimulus. The clause-specific LS in (29b) has “ʔarg-” ‘see’ as its predicate to assign “tolasaa” ‘Tolasa’ as the perceiver (experiencer) and “barattoota” ‘students’ as the perceived (stimulus) roles. It is interpreted as, there is an activity, such that “tolasaa” Tolasa engages in it and “tolasaa” Tolasa “ʔarg-” ‘see’ “barattoota” ‘students’. Similarly, the predicate “dandam-” ‘taste’ in (29c) assigns “soorettii” ‘Soreti’ as its experiencer and “ʔittoo” ‘stew’ as the stimulus.

**CONCLUSION**

This study has examined the typology and structure of basic-level activities in Afaan Oromoo. In the discussion, it is revealed that activity situations involve either M-transitive or M-intransitive verbs according to their M-transitivity properties. If the LSCs of the situations have M-transitive verbs, the arguments in direct object positions must be non-quantified or mass nouns. In such contexts, the external arguments are agents while the internal arguments are themes or patients. However, if the predicates contain M-intransitive verbs, the external arguments are themes, patients or experiencers. On the bases of these semantic properties, we have five types of basic-level activities: motion, emission, consumption, creation and active perception, all of which are elaborated in the present study.

Afaan Oromoo has motion activities which involve three types of verbs: non-agentive, self-agentive and agentive. The non-agentives encode movements of the theme with no explicit volitional participation of the agent clearly identified. Contrarily, self-agentives involve the theme which undergoes the movement with volition. Agentives engage the agents that cause the themes to undergo motion. In all types, the core arguments are active in temporal space, but they do not encode any inherent endpoints of the movement activities. Most emission verbs have similar LSCs in the language with a slight difference in substance emission verbs. Verbs of sound, light and smell emission are self-agentive and non-agentive, and their external arguments are emitters, which are effectors in their thematic relations. Substance emission verbs are M-transitive to which effector and theme are assigned

as thematic roles. In all cases, the effectors have actor, and the themes and the patients have undergoer macroroles. Consumption activities involve two arguments in their LSCs. The first is the consumer and the other is the consumed. In thematic relation assignment, the consumers are agents, whereas the consumed are patients. The former is assigned actor and the latter undergoer in the Actor-Undergoer Hierarchy.

We have also presented verbs of creation activities which express the coming into existence of physical and abstract entities. The LSCs describe the situations brought about by the agents and patients which occur as external and internal arguments, respectively. With respect to the semantic macroroles of the situations, RRG assigns actor and undergoer to the two thematic roles. Besides, the clauses have counter-passive constructions since the verbs are M-transitive. Having presented verbs of creation thus far, we consider active perception activities in the next subsection.

Altogether, different subtypes of activities are presented with illustrations in Afaan Oromoo. Accordingly, motion, emission, consumption, creation and active perception are discussed along with their thematic relations/roles and semantic macroroles. On the other hand, the LS of activity situation has [DO' (x, [Pred' (x) or (x, y)])], where DO' is the logical operator of the type, Pred' represents any activity verb, 'x' is agent, effector or experiencer, and 'y' is a theme, patient or stimulus. However, 'x' is the theme for one-place predicates. In a strict sense, the LS of activity situation is formally derived from that of stative, which has [Pred' (x) or (x, y)]. The only added primitive is the operator DO' to show dynamicity.

In the main, Afaan Oromoo shows complex morphosyntactic features in the representation of basic-level activities. On the bases of the syntactic and semantic tests formulated, the language has LSCs which represent activity situations along with their subtypes. This work is a good response for the claim that syntactic and semantic analyses do not go side-by-side, or they do not interact. The study has shown direction for future works on eventuality in Ethiopian languages. Other researchers may take a lesson from the discussions in the study and conduct far more comprehensive works on the language as well as other languages. Evidently, theoreticians need to abstract syntax in showing the compatibility of semantic approach in order to offer comprehensive explanations for grammatical structure and natural language processing.

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