

## *The Benefactive Applicative in Temne*<sup>1</sup>

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### **Abstract**

The benefactive applicative, which is realized in Temne as the verb suffix *-a*, is typologically unusual for an applicative in that it has a variable, but regular syntactic effect on the valence of the verb. In this paper, I examine the syntactic and semantic effects of combining the benefactive applicative with a verb in Temne. Building upon Kanu (2016, 2012, 2009a), I show that the benefactive applicative combines with intransitive, transitive and ditransitive verbs, and has the syntactic effect of adding up to two applied objects to the argument structure of the verb. Semantically, I demonstrate, using Langacker's (1978) "network model of polysemy", that the benefactive applicative is a polysemous suffix combining with various schemas that are closely related to each other.

Keywords: benefactive applicative, Temne, Atlantic languages

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<sup>1</sup> Temne (ISO 639-3:tem) belongs to the Southern Atlantic Group of the Niger Congo language family (Blench, (2006); Childs, (2010)). It is predominantly spoken in the Northern Province of Sierra Leone, and has a population of about 1.5 million native speakers. It is a Subject-Verb-Object language, and has a rich verbal morphology. It is a tonal language and has both high and low tones (Kanu, S.M. & Tucker, B.V., (2010)). It also has a noun class system.

## Introduction

The benefactive applicative, which is realized as the verb suffix *-a* in Temne, is typologically unusual for an applicative in that it has a variable, but regular syntactic effect on the valence of the verb. It can add one event-participant, a beneficiary or an instrument, to the argument structure of the verb. Also, it can add two event-participants, a beneficiary and a substitutive or a beneficiary and an instrument, to the clause. The term beneficiary is defined here as an event-participant that benefits from the action described by the verb in the clause. Thus, the term beneficiary is synonymous to the “plain beneficiary” in the sense of Van Valin & LaPolla (1997). A substitutive, on the other hand, is the event-participant on whose behalf or instead of whom the event described by the verb is performed.

In this paper, I examine in detail the syntactic and semantic effects of the benefactive applicative in Temne. Building upon Kanu (2016, 2012, 2009a), I show that the benefactive applicative combines with intransitive, transitive and ditransitive verbs, and has the syntactic effect of adding up to two applied objects to the argument structure of the verb. Semantically, I demonstrate, using Langacker’s (1978) “network model of polysemy”, that the benefactive applicative is a polysemous suffix combining with various schemas that are closely related to each other.

### Syntactic effects of the benefactive applicative

The benefactive applicative is compatible with intransitive, transitive and ditransitive verbs in Temne. Cross-linguistically, the benefactive applicative generally adds one applied object to the argument structure of the verb. However, in Temne, when the benefactive applicative is combined with an intransitive or transitive verb, it adds up to two applied objects to the clause. In this section, I examine the syntactic effects of the benefactive applicative in the clause.

### Intransitive verbs

When the benefactive applicative is combined with an intransitive verb, it adds an applied object that is assigned the participant role of a beneficiary or an instrument, as examples (2) and (3) illustrate.

1. I            thom<sup>2</sup>  
   1SG.SUBJ dance  
   ‘I am dancing/dance/danced.’

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<sup>2</sup> 1. first person; 2. second person; 3. third person; A. causer argument; AGT. agent; ANIM. animate; BEN. benefactive suffix; CAUS. causative suffix; COM. comitative; DEF. definite article; GR. grammatical relations; EMPH. emphatic pronoun; I. applied object of the instrumental suffix; INANIM. inanimate; INDEF. indefinite article; INST. instrumental suffix; L. applied object of the locative suffix; LOC. locative suffix; NC. noun class; PO. primary object; QO. quaternary object; R. object of a ditransitive verb; REF. reflexive suffix; REL. relative pronoun; SG. singular; SO. secondary object; SUBJ. subject; TO. tertiary object; W. applied object of the benefactive suffix; Y. object of a transitive verb; X. subject of a basic sentence.

2. I            thəmɔ-ʌ        kɔ  
 1SG.SUBJ dance-BEN    NC1.OBJ  
 ‘I am dancing/dance/danced for (the benefit of) him/her.’
3. I            thəmɔ-ʌ        t-ə-gbərəkə  
 1SG.SUBJ dance-BEN    NC6-INDEF-stilt  
 ‘I am dancing/dance/danced with stilts.’

In example (1), which has a bare verb, there is no applied object. However, in (2), where the benefactive applicative is combined with the basic verb *thəmɔ* ‘dance’, the applied object, which is marked by the third person object marker *kɔ* ‘him/her’ is added to the argument structure of the verb. Similarly, in (3), the applied object *təgbərəkə* ‘stilts’ is added to the clause when the verb is combined with the benefactive applicative.

Combining the benefactive applicative with a verb also has the syntactic effect of adding two applied objects to the valence of the intransitive verb. These applied objects may be realized as the beneficiary and the substitutive or the beneficiary and the instrument, as illustrated in (5) and (6) respectively.

4. I            thəmɔ  
 1SG.SUBJ dance  
 ‘I am dancing/dance/danced.’
5. I            thəmɔ-ʌ        mu            kɔ  
 1SG.SUBJ dance-BEN    2SG.OBJ        NC1.OBJ  
 ‘I am dancing/dance/danced for (the benefit of) him/her on your behalf.’
6. I            thəmɔ-ʌ        kɔ            t-ə-gbərəkə  
 1SG.SUBJ dance-BEN    NC1.OBJ        NC6-INDEF-stilt  
 ‘I am dancing/dance/danced for (the benefit of) him/her with stilts.’

In example (5), the added objects are marked by the second person object marker *mu* ‘you’ and the third person object marker, *kɔ* ‘him/her’. In this example, the primary object *mu* ‘you’ (i.e. the argument immediately after the verb) is identified as the substitutive (i.e. the participant on whose behalf the event is carried out), while the secondary object, *kɔ* ‘him/her’ is identified as the beneficiary. In (6) the applied objects are the third person object marker *kɔ* ‘him/her’ and the instrument, *təgbərəkə* ‘stilts’. In this example, the beneficiary is the primary object and the instrument *təgbərəkə* ‘stilts’ is the secondary object.

The instrument occupies the rightmost argument position in the clause even when all the post-verbal arguments are realized as object markers or nouns, as examples (7) and (8) indicate.

7. I            thəmɔ-ʌ        kɔ            chi  
 1SG.SUBJ dance-BEN    NC1.OBJ        NC6:OBJ  
 ‘I am dancing/dance/danced for (the benefit of) him/her with them (stilts).’

8. I            thəmɔ-ʌ        ɔ-bɔkɔ        t-ə-gbərəka  
 1SG.SUBJ dance-BEN    NC1-woman    NC6-INDEF-stilt  
 ‘I am dancing/dance/danced with stilts for (the benefit of) the woman.’

The sentence is ungrammatical if the order of the beneficiary and instrument is reversed, as (9) and (10) indicates.

9. \*I            thəmɔ-ʌ        chi            kɔ  
 1SG.SUBJ dance-BEN    NC6:OBJ        NC1.OBJ  
 Intended meaning: ‘I am dancing/dance/danced for him/her with them (stilts).’

10. \*I            thəmɔ-ʌ        t-ə-gbərəka        ɔ-bɔkɔ  
 1SG.SUBJ dance-BEN    NC6-INDEF-stilt        NC1-woman  
 Intended meaning: ‘I am dancing/dance/danced with stilts for (the benefit of) the woman.’

As discussed in Kanu (2016, 2012), the order of post-verbal arguments in Temne is determined by three interacting hierarchies: the precedence hierarchy, participant hierarchy, and prominence hierarchy. The precedence hierarchy, OM » NOM, ranks objects expressed by object markers (OM) over those expressed by nominals (NOM), requiring that the former precedes the latter. Example (9) violates the prominence hierarchy, which requires post-verbal arguments that are expressed by object markers (OM) to occur in the order of precedence: 1/2 » 3ANIM » 3INANIM. In (9), the third person inanimate object marker *chi* ‘them (stilts)’ precede the animate object marker *kɔ* ‘him/her’, hence the ungrammaticality of the sentence.

Example (10), on the other hand, violates the participant hierarchy: A » X » S » W » {L, C} » R » Y » I, which provides a ranked ordering of event participants based on their participant roles. The participant hierarchy applies only to homogeneous object constructions, defined as constructions where two or more post-verbal arguments are expressed as nouns or nominal. Thus, in (10), where all the post-verbal objects are expressed as nominal, the instrument, *təgbərəka* ‘stilts’ which is represented by the variable I in the participant hierarchy, precedes the beneficiary, *ɔbɔkɔ* ‘the woman’ that is marked as W in the participant hierarchy. Thus, the ungrammaticality of (10) follows directly.

## Transitive verbs

The benefactive applicative also combines with transitive verbs in Temne. As with intransitive verbs, it can add a beneficiary or an instrument to the clause. This is illustrated in examples (12) and (13).

11. I            gbal    Λη-reka  
 1SG.SUBJ write NC3:DEF-letter  
 ‘I am writing/write/wrote the letter.’
12. I            gbal-Λ            kɔ            Λη-reka  
 1SG.SUBJ write-BEN NC1.OBJ NC3:DEF-letter  
 ‘I am writing/write/wrote the letter for (the benefit of) him/her’.
13. I            gbal-Λ            Λη-reka            k-ə-thanke    k-ə-yim  
 1SG.SUBJ write-BEN NC3:DEF-letter NC2-INDEF-pen NC2-INDEF-red  
 ‘I am writing/write/wrote the letter with a red pen.’

There is no applied object in (11) which has a bare verb. However, in (12) where the benefactive applicative is combined with the transitive verb *gbal* ‘write’, the applied object, which is marked by the third person object marker *kɔ* ‘him/her’, is added to the argument structure of the verb. Also, the applied object occupies the primary object position (i.e. the position immediately after the verb), while the object of the basic verb, *Ληreka* ‘the letter’ is demoted to the secondary object position. In (13), it is the instrument, *kəthanke kəyim* ‘red pen’ that is added to the clause, and is realized as the secondary object, while the object of the basic verb is the primary object.

As with intransitive verbs, the benefactive applicative can also add two applied objects to the argument structure of the transitive verb, as examples (15) and (16) illustrate.

14. I            gbal    Λη-reka  
 1SG.SUBJ write NC3:DEF-letter  
 ‘I am writing/write/wrote the letter.’
15. I            gbal-Λ            mu            kɔ            Λη-reka  
 1SG.SUBJ write-BEN 2SG.OBJ NC1.OBJ NC3:DEF-letter  
 ‘I am writing/write/wrote a letter for him/her on your behalf.’
16. I            gbal-Λ            kɔ            Λη-reka            k-ə-thanke  
 1SG.SUBJ write-BEN NC1.OBJ NC3:DEF-letter NC2-INDEF-pen  
  
                   k-ə-yim  
                   NC2-INDEF-red  
 ‘I am writing/write/wrote the letter for him/her with a red pen.’

In (15), the applied objects are marked by the second person object marker *mu* ‘you’ and the third person object marker *kɔ* ‘him/her’. As in (5), when the substitutive and the beneficiary co-occur, the substitutive is always closer to the verb. Thus, in (15) the substitutive *mu* ‘you’, is the primary object, while the beneficiary, *kɔ* ‘him/her’ is the

secondary object. In (16), there are two applied objects, *kə* ‘him/her’, which is the primary object, and *kəθanke kəyim* ‘red pen’, which is the tertiary object. The object of the basic verb *ɔpreka* ‘the letter’ is the secondary object. Example (16) also provides evidence for the participant hierarchy since the participant role of theme (represented as R in the participant hierarchy) that is assigned to the object of the basic verb, *ɔpreka* ‘the letter’, precedes the instrument, *kəθanke kəyim*.

### Ditransitive verbs

The benefactive applicative combines with ditransitive verbs in Temne. As with intransitive and transitive verbs, it can add a beneficiary or an instrument to the argument structure of the verb. The following examples illustrate this.

17. ɔ           nut    ɔ-wath        ʌ-nak  
 NC1.SUBJ feed NC1-child NC3:INDEF-rice  
 ‘He/She is feeding/feeds/fed the child some rice.’

18. ɔ           nut-ʌ        mu            ɔ-wath        ʌ-nak  
 NC1.SUBJ feed-BEN 2SG.OBJ NC1-child NC3:INDEF-rice  
 ‘He/She is feeding/feeds/fed the child some rice for you.’

19. ɔ           nut-ʌ        ɔ-wath        ʌ-nak        k-ə-bep  
 NC1.SUBJ feed-BEN NC1-child NC3:INDEF-rice NC2-INDEF-  
 spoon  
 ‘He/She is feeding/feeds/fed the child some rice with a spoon.’

In (17), which has a bare verb, only the objects of the ditransitive verb appear in the clause. In (18), where the benefactive applicative is combined with the ditransitive verb *nut* ‘feed’, a new object, marked by the second person object marker *mu* ‘you’, is added to the clause. This applied object is the primary object, while the objects of the basic verb, *ɔwath* ‘the child’ and *ʌnak* ‘rice’ are demoted to the secondary and tertiary object position respectively. In (19), the applied object is *kəbep* ‘a spoon’, and it is the oblique object, while the objects of the basic verb are the primary and secondary object.

Unlike intransitive and transitive verbs, the benefactive applicative cannot add a beneficiary and an instrument to the argument structure of the ditransitive verb, as the ungrammaticality of (20) indicates.

20. \*ɔ           nut-ʌ        mu            ɔ-wath        ʌ-nak  
 NC1.SUBJ feed-BEN 2SG.OBJ NC1-child NC3:DEF-rice  
  
 k-ə-bep  
 NC2-INDEF-spoon  
 Intended meaning: ‘He/She is feeding/feeds/fed the child some rice for you with a spoon.’

It is also impossible for the benefactive applicative to add both a substitutive and beneficiary to the valence of the ditransitive verb, as the ungrammaticality of (21) indicates.

21. \* $\text{ɔ}$              $\text{nut-}\Lambda$              $\text{mu}$              $\text{k}\text{ɔ}$              $\text{ɔ-wath}$   
           NC1.SUBJ    feed-BEN        2SG.OBJ        NC1.OBJ        NC1-child

$\Lambda$ -nak  
 NC3:INDEF-rice

Intended meaning: ‘He/She is feeding/feeds/fed the child some rice for you on behalf of him/her.’

Examples like (20) and (21) indicate that the benefactive applicative cannot add two applied objects to the argument structure of the ditransitive verb.

Thus, syntactically the benefactive applicative combines with intransitive, transitive and ditransitive verbs. When it is combined with an intransitive or transitive verb, it increases the valence of the verb by either one (a beneficiary or an instrument) or two applied objects (substitutive, beneficiary or beneficiary, instrument). However, it cannot add two applied objects to the argument structure of a ditransitive verb.

In addition, I showed that the order of the applied objects in a benefactive construction is not random. Rather, it is determined by the participant hierarchy, precedence hierarchy and the prominence hierarchy. Accordingly, since arguments assigned the participant role of beneficiary or substitutive are generally animates, they occupy a less oblique argument slot in the clause. On the other hand, since participants that are assigned the participant role of instrument are mostly inanimate, they occupy more oblique argument slots in the clause.

### **The semantics of the benefactive applicative**

Cross-linguistically, benefactive constructions are prone to a range of different semantic readings. As reported in Marten & Kula (2014:8), Peterson (2007) identified five of these readings as: “(a) contributing to X’s well-being (plain, benefactive), (b) detracting from X’s well-being (plain, benefactive), (c) involving something which ends up in the possession of X (recipient), (d) involving something which is directed towards X (direction/goal), and (e) doing something instead of/on behalf of/in place of X (substitutive)”. Three of these readings (a, b & e) are attested in Temne. In addition, Temne benefactive applicative has the instrumental reading, which is in fact the basic semantic reading of the instrumental applicative *-ane*.

In Kanu (2012), I divided the various readings of the benefactive applicative into five schemas: Schema B1, B2, B3, B4 and B5. Schema B1, which states: ‘[X performs E], involving Z’ is the super-schema. It is adapted from Mel’cuk (1993) who formulated the generalized applicative schema, ‘involving Z’. The variable Z does not represent any specific event participant. However, it is associated with the beneficiary/maleficiary, substitutive and instrumental participant roles. In what follows, I describe each of these schemas in detail.

### **Schema B2 of the benefactive applicative**

Schema B2 denotes the event schematized as ‘[X performs E], affecting the interests of W’, where W represents the beneficiary/maleficiary, and ‘affecting the interests of

W' represents the meaning of the benefactive applicative. Thus, the interests of W may be affected positively, as in a beneficiary reading or negatively as in a maleficiary reading. Examples (22) and (23) illustrate this schema.

22. I            way- $\Lambda$             mu             $\Lambda\eta$ -thaba  
 1SG.SUBJ buy-BEN            2SG.OBJ            NC5-tobacco  
 'I am buying/buy/bought tobacco for (the benefit of) you.'

23. I            dim- $\Lambda$             mu             $\Lambda\eta$ -thaba  
 1SG.SUBJ lost-BEN            2SG.OBJ            NC5-tobacco  
 'I lost (to your disadvantage) your tobacco.'

In both (22) and (23), the interests of W, represented by the second person singular object marker *mu* 'you', is affected by the event described by the verb in each sentence. The basic difference between (22) and (23) is that in (22) the interests of W are affected positively, hence the beneficiary reading. On the other hand, in (23), the interests of W are affected negatively, hence the maleficiary reading. Thus, the context determines whether the sentence has a beneficiary or a maleficiary reading. This schema (B2), which is the most frequent in Temne spoken discourse, patterns with Peterson (2007)'s "plain benefactive" readings: "contributing to X's well-being" and "detracting from X's well-being".

### Schema B3 of the benefactive applicative

Unlike schema B2, schema B3 involves two new participants, the beneficiary (W) and the substitutive (S), defined here as the event-participant 'on whose behalf' or 'instead of whom' the event described by the verb is carried out. Other terms used in the literature for the substitutive are the "deputative benefactive" (Marteen 2015) and "surrogation" (Zuñiga, 2010). Schema B3 denotes the event schematized as [X performs E] on behalf of S, affecting the interests of W. As with schema A, [X performs E] represents the meaning of the basic verb. Example (24) illustrates schema B3 of the benefactive applicative.

24. I            way- $\Lambda$             mu             $k\sigma$              $\Lambda$ -thaba  
 1SG.SUBJ buy-BEN            2SG.OBJ            NC1.OBJ            NC3:INDEF-tobacco  
 'I am buying/buy/bought tobacco for him/her on your behalf.'

In (24) where both the substitutive, marked by the object marker *mu* 'you' and the beneficiary, marked by the object marker *kσ* 'him/her' are added to the clause, the sentence has the meaning whereby an agent (X) performs an event (E), that would otherwise be performed by another participant (S). This event affects either positively or negatively the interests of a third participant (W). A substitutive reading of the benefactive applicative has recently been reported of the language, Bemba (Marten & Kula 2014). However, unlike Bemba, the substitutive reading in Temne is not marked on the verb by any morpheme different from the benefactive suffix - $\Lambda$ .

### Schema B4 of the benefactive applicative

In schema B4, only one event-participant is involved. It states: [X performs E], using I. Here the variable I represents the instrument. This reading of the benefactive



applicative is more productively realized when a verb is combined with the instrumental suffix *-ane*. Example (25) illustrates schema B4 of the benefactive applicative.

25. I	gbal- $\Lambda$	k-ə-th $\Lambda$ nkε	k-ə-yim
	1SG.SUBJ write-BEN	NC6-INDEF-pen	NC2-INDEF-red
	‘I am writing/write/wrote with a red pen’		

In example (25), the benefactive applicative adds the event participant, *kəth $\Lambda$ nkε kəyim* ‘red pen’ to the clause, and has the meaning which may be roughly expressed as an agent (X) performs an event (E), using an instrument (I). Note that [X performs E] represents the meaning of the basic verb, whereas ‘using I’ represents the meaning of the benefactive applicative.

### Schema B5 of the benefactive applicative

Schema B5 states [X performs E], using I, affecting the interests of W. With this schema, the benefactive applicative adds two event-participants to the clause. They are the beneficiary (W) and the instrument (I). This reading of the benefactive applicative is exemplified in (26) below.

26. I	gbal- $\Lambda$	mu	$\Lambda$ -reka	k-ə-th $\Lambda$ nkε
	1SG.SUBJ write-BEN	2SG.OBJ	NC3-INDEF-letter	NC1-INDEF-pen
	k-ə-yim			
	NC1-INDEF-red			
	‘I am writing/write/wrote a letter for you with a red pen.’			

In example (26), both a beneficiary, marked by the object marker *mu* ‘you’ and an instrument *kəth $\Lambda$ nkε kəyim* ‘red pen’ are added to the event participants in the clause. Thus, (26) has the meaning which may be roughly stated as an agent (X) performs an event (E), using an instrument (I). This event affects either positively or negatively the interests of another participant, (W).

### Schematic network of the benefactive applicative

As shown in the previous section, the benefactive applicative in Temne has various shades of related meanings that are defined by the event participant(s) involved in each event. Following Langacker (1987), I represent these meanings in a polysemous schematic network. However, I depart from Langacker’s pictorial diagrams conventions by representing each meaning as a lexical paraphrase in the light of Mel’cuk (1988). Event-participants are marked by the variables: X, W, S, I. In Langacker’s (1987) “network model of polysemy”, each meaning of a unit occupies a node and is connected on the horizontal axis to the meanings that are most similar to it. Also, I represent the relation of similarity with broken arrows. The vertical axis corresponds to abstractness or schematicity.

The meanings that are higher in the network are more schematic or less specific and are compatible with all of the meanings linked to it from below in the network. The meanings lower in the network are more specific, or elaborations of higher schemas.

The relation of schematicity is represented with solid arrows. Each of the schemata for the applicative also includes in brackets an abstract meaning for the verbal base, schematized as [X performs E]. The variable X represents the participant directing the action that is expressed by the predicate E, while W, S, I, represent the participant associated with the benefactive applicative. Figure 1 illustrates the schematic network of the benefactive applicative.

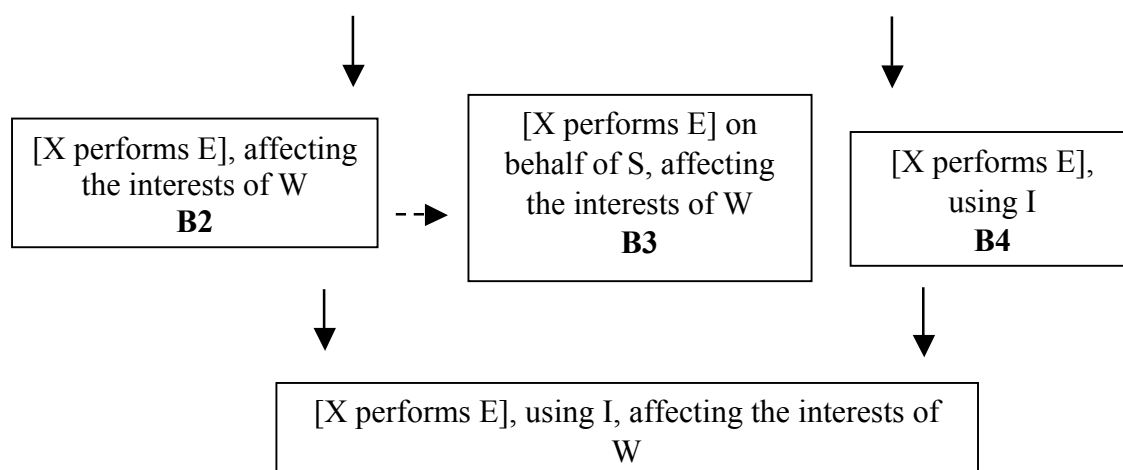


Figure 1. Schemas of the benefactive applicative (Adapted from Kanu 2012)

As mentioned earlier, schema B1 is the super-schema. The variable Z does not represent any specific event participant. However, it is associated with the beneficiary, substitutive and instrumental participant role. Schemas B2, B3, B4 and B5 are sub-schemas, and are expressed in the meaning of the derived verbs. Schemas B2 and B4 are elaborations of schema B1, as indicated by the boldface arrows. Schema B3 is an extension of schema B2, as indicated by the broken arrow. Schema B5 is a subgroup of schemas B2 and B4.

The difference between the events that each schema denotes defines the participant that is involved in each schema. In the case of schema B2, the new participant W is either a beneficiary or maleficiary, whereas with schema B4 the new participant is I, an instrument. In schema B5, both an instrument I and a beneficiary/maleficiary W are involved in the event, hence the difference between this schema and schema B2 or B4. Schema B3 also includes two new participants, the beneficiary W and the substitutive S. A corpus-based study of Temne spoken discourse in Kanu (2012) reveals that Schema B2 is the most productive schema of the benefactive applicative. This reading is also the most frequent across languages.

## Conclusion

In this paper, I discussed the syntactic and semantic effects of the benefactive applicative in Temne. I showed that the benefactive applicative combines with all syntactic verb types: intransitive, transitive and ditransitive verbs in Temne. When it is combined with an intransitive and a transitive verb, it can add either one (a benefactive or instrument) or two (benefactive and substitutive or benefactive and instrument) applied objects to the argument structure of the verb. However, with

ditransitive verbs, it can only add one applied object (the beneficiary/maleficiary or instrument) to the clause. Regarding the order of the applied objects in the clause, I showed that the order of post-verbal arguments in Temne is determined by three interacting hierarchies: the participant hierarchy, precedence hierarchy and prominence hierarchy. Thus, the substitutive and the beneficiary arguments which are generally realized as animate are less oblique than the instrument, which is mostly inanimate.

This paper also describes the various readings of the benefactive applicative. I showed that the benefactive applicative is a polysemous applicative combining with various schemas that are closely related to each other by a system of semantic network. I represented the various meanings of the benefactive applicative in five schemas. Schema B1, which is the most abstract meaning of the benefactive is schematized as: [X performs E] involving Z. Scheme B2, which is the most basic and frequent in Temne spoken discourse, is schematized as: [X performs E] affecting the interests of W. Schema B3 is an elaboration of schema B2 and it states: [X performs E] on behalf of S, affecting the interests of W. Schema B4, which is a basic reading of the instrumental applicative *-ane* in Temne states: [X performs E] using I. Finally, schema B5 states: [X performs E] using I, affecting the interests of W. In all these readings, [X performs E] represents the meaning of the basic verb.

## References

- Blench, R. M. (2006). *Archaeology, language, and the African past*. Lanham: AltaMira Press.
- Childs, G. T. (2010). Language contact in Africa: A selected review. In R. Hickey (Ed.), *Handbook of language contact* (pp. 695–713). Malden and Oxford: Wiley-Blackwell.
- Kanu, S. M. (2016). Grammatical Relations in Temne. *Presentation at the International Academic Forum, Dubai Conference Series 2016* (27-29 March 2016).
- Kanu S. M. and Tucker B. V. (2010). Illustrations of the IPA: Temne. *Journal of International Phonetic Association*, 40, 247–253.
- Kanu, S. M. (2004). *Verbal morphology of Temne*. Master's thesis, University of Tromsø, Norway.
- Kanu, S. M. (2009a). Suffix ordering in Temne: A case for morphotactics. In M. Matondo, F. McLaughlin and E. Potsdam. (Eds.), *Selected proceedings of the 38th Annual Conference on African Linguistics* (pp. 141–150). Somerville, MA: Cascadilla Proceedings Project.
- Kanu, S. M. (2009b). *Noun classes in Temne*. Paper presented at the 40<sup>th</sup> Annual Conference on African Linguistics. University of Illinois.
- Kanu, S. M. (2012). Valence-Increasing Morphology in Temne (doctoral dissertation, University of Alberta, retrievable from: <http://hdl.handle.net/10402/era.25351>)
- Kanu, S. M. (2016). Grammatical Relations in Temne. *Proceedings of the International Academic Forum, Dubai Conference Series 2016* (27-29 March 2016).
- Langacker, R. W. (1987). *Foundations of cognitive grammar. Volume 1: Theoretical prerequisites*. Stanford: Stanford University Press.
- Lewis, M. P. (Ed.). (2009). *Ethnologue: Languages of the world* (16<sup>th</sup> ed.). Dallas, TX: SIL International. <http://www.ethnologue.com>.
- Marten, L. & Kula, N. (2014). Benefactive and substitutive applicatives in Bemba. *Journal of African Languages and Linguistics*, 35(1), pp. 1-44. Retrieved 3 Apr. 2017, from doi:10.1515/jall-2014-0001
- Mel'cuk, I. (1988). *Dependency syntax: Theory and practice*, Albany, NY: The SUNY Press.
- Mel'cuk, I. (1993–2000). *Cours de morphologie générale*. Montréal: Presses de l'Université de Montréal.
- Van Valin, R. D. & LaPolla, R. J. (1997). *Syntax: Structure, meaning and function*. Cambridge: Cambridge University Press.

Zuñiga, F. (2010). The grammar of benefaction: A cross-linguistic study.  
Habilitation Dissertation, University of Zürich.

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