3.1   GENERAL INFORMATION ABOUT PROJECT B03

3.1.1   Project title: Syntactic and morphological interactions of negation – a crosslinguistic study

3.1.2   Research areas

104-01 Comparative Linguistics, Semantics, Syntax

3.2   SUMMARY

The main goal of this project is to investigate the interaction of negation with other functional elements in the clause in representative languages of two distinct language families of the Niger-Congo phylum, the Mabia and the Bantu languages. The central theoretical hypothesis is that morpho-syntactic interactions are found with most of the central functional projections along the sentential spine, especially at the phase edges, with formal and functional variation at their respective peripheries. The project mainly focuses on interactions of sentential negation and the expressions of tense, aspect (vP periphery), as well as focus, and imperatives (both CP periphery). The languages to be investigated in this project all show a very rich inventory of elements for the expression of the various functional domains. For this reason, we consider that the Mabia and Bantu languages are ideal for the investigation of negation and its different possible interactions

and that the expected results will reveal properties of negation that cannot be investigated in better-studied languages to the same extent, given the absence of such effects in these languages. In addition, despite the many differences that exist between these two only distantly related language families, the interactions between negation and the respective functional projections exhibit striking similarities between the Mabia and Bantu languages. We believe that these similarities are mostly due to the more general properties of negation and its components, and are not just due to a common proto-language.

Thus, the project represents an ideal testing ground for the evaluation of negation between the two opposing central hypotheses of the CRC, the Neg-Plus and the Neg-Only hypothesis, given the rich array of overtly visible interactions at different syntactic levels. The project directly investigates the general question of area B of the CRC (and all of its subquestions):

QB: How can we explain similarities and interactions between negation and other grammatical categories?

In the second and third funding periods of the CRC, we plan to extend our data base building on the hypotheses that were developed in the first phase. We will also investigate more complex phenomena such as the Neg-raising and negative polarity.

3.3   RESEARCH RATIONALE

3.3.1   Current state of research and preliminary work

The starting point of the project is an observation found in the literature that the perfective aspect is less compatible with negation than the imperfective aspect (e.g., Schmid 1980, Matthews 1990, Ernst 1995) often leading to a loss of the morphological exponents of the perfective aspect. Miestamo (2005) presents a typological study on paradigmatic asymmetries between the affirmative and the negative where he shows this initial observation is too strong in that also imperfective distinctions may be lost under negation. Miestamo & van der Auwera (2011) discuss reasons for the interaction between negation and aspect in general. Semantic explanations claim that negation is incompatible with aspects that delimit events but that it rather combines with non-completive or stative aspects. This can be verified in French and Russian, where it has been argued that negation is preferably expressed in the imperfective and where negated perfective leads to a semantic shift in the meaning of the negated category (negation of the action vs. negation of the aspect, de Swart & Molendijk 1999, Smith 1991). Miestamo & van der Auwera (2011) favor a theory where grammatical categories may be omitted in negative statements given that the affirmative – including all its grammatical markings – is always presupposed. Most importantly for the project, a syntactic account for the interaction of negation with aspect marking is still lacking (Amaechi 2020 for a notable exception). Such an account will broaden our general understanding of the cross-linguistically intricate relations between negation and other grammatical categories in its vicinity and hence contribute to a theoretical advancement in this complex and interesting syntactic area.

Apart from the relation between negation and aspect, sentential negation has also been argued to be associated with tense. This gave rise to the assumption of the NegP being directly related to the TP by either immediately dominating or being dominated by it (Zanuttini 1991; Haegeman 1995; Zanuttini 1997b; Pollock 1989 and many others). In more recent work, De Clerq (2018; 2020a) proposes that the relation between negation and tense is even more complex in that the negative head contains a tense feature. De Clerq (2020b) provides empirical support for this assumption and extends the observations to mood and aspect, showing that negation may spell out more features of the TAM domain. Turning to focus, its interaction with negation has received a great deal of attention as well. The sensitivity of focus to negation was first observed by Jackendoff (1972) and the rich literature following this seminal work cannot be referenced in detail here. Zanuttini (1997b), for instance, discusses the development of the focus negative marker into the standard negative marker in Northern Italian dialects. Further expanding on this work, Poletto (2008) argues that the negation in Italian varieties is always located in a focus position in the low left periphery. Etxepare & Etxebarria (2008) develop a semantic analysis of the relation between negation and focus in Spanish and Basque, arguing for a direct mapping between syntactic and semantic negative scope. Finally, in the speech act domain, it has been argued for imperatives that many languages do not allow the negation of imperatives but need to choose a suppletive form, see Zanuttini (1994), Zeijlstra (2022).

In this project, we will investigate interactions between negation and the functional projections along the sentential spine in a representative set of languages from two families of the Niger-Congo phylum, namely the Mabia and the Bantu languages, respectively. More concretely, we will look at the interplay of negation at the vP-periphery (interaction with aspect and tense), and at the CP-periphery (interaction with focus and imperatives). Given the rich inventory of morpho-syntactic markers in these languages, such interactions can be observed quite easily, which will contribute to the CRC an evaluation of the two theories at stake, the Neg-Plus and the Neg-Only hypothesis.

In the following paragraphs, we will first discuss various phenomena of interaction in the Bantu languages, and then turn to the Mabia languages. We will always proceed from the deepest functional domain to the higher ones, according to the sentential spine given in (1). We opted against a presentation of the data ordered by features, hoping that the chosen format provides the reader with a more coherent overview of the two language families.

(1) $[_{CP} [_{TP} [_{AspP} [_{vP} \text{ VP }]]]]$

The **Bantu languages** are a language family of over 500 languages spoken in all of Sub-Saharan Africa. Due to the high number of languages, variation between the languages is rich, and this variation naturally extends to variation in the encoding of negation, with an early overview provided in Muzenga (1981). There is a large amount of descriptive literature on many different Bantu languages, and various generalizations about negation in Bantu have been discussed in several works. In general, Bantu languages tend to be highly agglutinative languages, encoding much information via verbal prefixes, with a prefix showing agreement with the subject being the initial prefix in this complex. Going back to Güldemann (1999), it has been observed that Bantu languages using prefixal negation place the prefix either before (pre-initial) or after (post-initial) the subject marker. Which position is chosen can vary even within one language and is based on various factors that we discuss below. In addition to prefixal negation, many Bantu languages also use independent postverbal particles. Again, much variation can be observed in the use of these particles, which can also be combined with prefixal negation. The reason for this variation is often attributed to diachronic development with different Bantu languages being at different stages of Jespersen's cycle (Devos & van der Auwera 2013, Jespersen 1917). Synchronically, such variation is amenable to a description in terms of parametric variation, as has been presented in Guérois et al. (t.a.), who identified seven parameters with various sub-parameters that are based on available descriptions, which can be used to describe the variation in negation.

Starting with the potentially lowest interactions at the vP-level, it has been observed that negation can impact the presence of the augment as well as conjoint-/disjoint-marking, the latter discussed most frequently in relation to focus marking. Very informally, the conjoint (CJ) / disjoint (DJ) distinction refers to a particular marking on the verb that indicates whether the verb is followed by an element, marking it as conjoint, or whether the verb is not followed by anything, marking it as disjoint. Again, details of this marking vary significantly, but languages that encode the CJ/DJ distinction seem to be more prevalent in Eastern and Southern Bantu languages (c.f. the collection in van der Wal & Hyman 2017). Going back to at least Givón (1975), it has been observed that frequently CJ/DJ marking is not possible on the verb under negation. For example, Ngoboka & Zeller (2017) discuss various ways of DJ and CJ marking in Kinyarwanda (JD61[1]) and show that under negation the marking disappears.

As a baseline, consider the sentences in (4) (Ngoboka & Zeller 2017:352), in which the DJ is marked segmentally (2a), while the conjoint is marked by the deletion of the high tone from the verb *kór* 'work' (2b).

(2)   a. A-ba-áarimú   ba-ra-kór-a.[2]
          AUG-2-teacher   2SM-DJ-work-FV
          'Teachers work.'
       b. A-ba-áarimú   ba-kor-a   a-ka-zi   ka-iínshi.
          AUG-2-teacher   2SM-work.CJ-FV   AUG-12-work   12-many
          'Teachers do a lot of work.'

In contrast, below negation, there is neither a tonal change[3] nor an inserted segment observable for the marking of conjoint and disjoint, respectively.

(3)   a. U-mu-áana   **nti**-a-kor-á   a-ka-zi.
          AUG-1-child   NEG-1SM-work-FV   AUG-12-work
          'A child does not do work.'
       b. U-mu-áana   **nti**-a-kor-á.
          AUG-1-child   NEG-1SM-work-FV
          'A child does not work.'

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[1] We follow Guthrie's classification of the Bantu languages, see Guthrie (1948).

[2] In the cited examples, we unify the glosses according to the Leipzig Glossing Rules. At the same time, we keep the orthographic conventions from the original authors, including the marking / non-marking of tones. The negation markers appear in bold face.

[3] There actually is a tonal change observable in (3). However, this has to do with the negation and not the CJ/DJ marking.

Even though the pattern is prevalent and often mentioned in the relevant literature, explanations remain vague. Most frequently, it is argued that CJ/DJ marking is linked to focus, and negation restricts the possibilities of focus marking, leading to the absence of CJ/DJ. This of course then raises the question of how the connection between focus and negation can be formalized such as to influence CJ/DJ marking.

For low arguments inside the vP, a very similar situation can be observed concerning the augment, a very prevalent prefix for nouns in many Bantu languages. Without going into too much detail, while the distribution of the augment again varies significantly across Bantu, it is frequently observed that normally augmented nouns lose the augment when they serve as complements to negated verbs (Van de Velde 2019:251; Halpert t.a.). As something similar can sometimes be observed for focused nouns (Hyman & Katamba 1993:228), a possible connection to information structure seems again to be feasible.

Turning to more widely discussed cases, it is well attested that negation in Bantu seems to impact various TAM markers, which are mostly located above vP.[4] For example, Kouagang & Van de Velde (2019) observe for Kwakumi (A91), a language spoken in Cameroon, that non-indicative moods might require a different negator than sentences in indicative mood. Furthermore, very frequently, the negative markers interact with tense and aspect, leading to distinct negative markers for different tenses/aspects. Kami (G36, Petzell & Aunio 2019:582), a Bantu language spoken in Tanzania, uses a dedicated verb-final marker for negation in the past, *-ile*, see (4a). In non-past sentences, the negation marker differs in form and position, as shown in (4b) for the future. The verb-final marker *-ile* is similar to a marker for conditionals. The example in (4a) also shows another important property of negation in many Bantu languages: pre-initial negation is merged with the subject marker in certain persons.

(4)   a. **Hu**-lim-**ile**   m-gunda   w-ako   jana.
         2SG.SM.NEG-cultivate-NEG.PST   3-farm   3-POSS.2SG   yesterday
         'You did not cultivate your farm yesterday.'
      b. **Ha**-m-lim-a   m-gunda   w-enu…
         NEG-2PL.SM-cultivate-FV   3-farm   3-POSS.2PL
         'You will not cultivate your farm …'

A different interaction between tense and negation that can be observed frequently is that negation leads to suppletive forms for the tense/aspect prefixes on the verb. Again, the extent of this interaction is dependent on the particular language, but, Swahili (G40), for example, shows suppletive forms for past tense (5) and perfective aspect (6), both from Ngonyani (2001:20).

(5)   a. Tu-li-ondok-a.   b. **Ha**-tu-**ku**-ondok-a.
         1PL.SM-PST-leave-FV   NEG-1PL.SM-NEG.PST-leave-FV
         'We left.'   'We did not leave.'

(6)   a. Tu-me-ondok-a.   b. **Ha**-tu-**ja**-ondok-a.
         1PL.SM-PFV-leave-FV   NEG-1PL.SM-NEG.PFV-leave-FV
         'We have left.'   'We have not left.'

Note how in the negated sentences in (5b) and (6b), negation occurs twice, in the pre-initial as well as in the post-initial position, respectively, but still only leads to a single negative interpretation. While this is the case in Swahili, many other Bantu languages only employ the pre-initial position for negation in independent clauses.

Lastly, we turn to the impact of negation on the CP domain, the highest layer of the clause. At least two different effects can be identified, albeit with somewhat different directions of the effect. First, the cross-linguistically well attested observation that negation impacts the encoding of imperatives also holds for many of the Bantu languages. Second, embedded clauses, or more generally dependent clauses, as they tend to be called in the Bantu literature, often display a different kind negation when compared to their main clause counterparts. Starting with negative imperatives, or prohibitives, many languages do not allow true negative imperatives (Zanuttini 1994, Zeijlstra 2022), and a similar variation can be found in Bantu languages. In Swahili, negated imperatives are structurally very different from positive ones and require the use of a negative marker that usually occurs in dependent clauses, the secondary or postinitial negation (Güldemann 1999). In negated imperatives in Swahili, the verb appears to stay lower than in the positive ones, similarly to languages like Italian, see Zanuttini (1997a), and is in the subjunctive form.

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[4] We follow Julien (2002) and much subsequent work in assuming that the verb moves from its base position upwards to the head just below the prefix closest to the verb stem. In other words, everything that follows the verb stem, including suffixes, is lower in the structure than the verb, everything preceding the verb stem, is above it.

(7) a. Som-eni!
      read-ɪᴍᴘ.ᴘʟ
      'You all read!'

                  b. M-si-som-e.
                  2ᴘʟ. sᴍ-ɴᴇɢ-read-sʙᴊ
                  'You all do not read!'

A different negative imperative strategy is found in Zulu (S42), where the negative imperative is a construction consisting of an infinitive with class 15 prefix, and an auxiliary, which is restricted to this occurrence only (Devos & Van Olmen 2013:36).

(8) **Musa**   u-ki-hamb-a!
     ᴀᴜx.ɴᴇɢ.ɪᴍᴘ   ᴀᴜɢ-15-run-ɪɴғ
     'Don't run!'

Even more variation can be found in the languages with a descriptive study covering 100 Bantu languages presented in Devos & Van Olmen (2013) (cf. also Nurse 2008). What remains unclear however, is whether the impact negation has on the imperative, or the actual shape of the negative imperative, is correlated with specific other effects of negation in the particular Bantu language.

We assume that imperative as clause type is encoded in the left periphery of the clause, the CP. The CP layer of the clause also plays an important role for clausal embedding, and with respect to this property, another impact of negation can be observed. As already pointed out by Güldemann (1999) and mentioned above, many Bantu languages, especially in East Africa, make a distinction between negation in independent, mainly simple declarative clauses, for which the pre-initial negation is used, and dependent clauses, for which post-initial negation is employed, frequently with a marker differing from pre-initial negation. For example, Swahili negated relative clauses require post-initial -*si*- as negator (9a), with pre-initial negation leading to ungrammaticality (9b, examples from Ngonyani 2001:22).

(9) a. ki-tabu [a-**si**-cho-ki-som-a]
      7-book 1sᴍ-ɴᴇɢ-7ʀᴇʟ-7oᴍ-read-ғv
      'the book which she did not read'

                  b. ***h**-a-**ku**-cho-ki-som-a
                  ɴᴇɢ-1sᴍ-ɴᴇɢ.ᴘsᴛ-7ʀᴇʟ-7oᴍ-read-ғv

Turning finally to more complex topics, such as negative concord or negative polarity, the investigation of these themes in the Bantu and Mabia languages is yet to start. Concerning the Bantu languages, the only research we are aware of is Löfgren's Master Thesis from (2019), which discusses negative polarity as a case of the more comprehensive phenomenon of "phasal polarity" and presents scattered data from the literature. Interestingly, negative polarity items such as *(not) yet* appear to be (i) atomic elements, and (ii) not morphologically related to the expression of negation. This is illustrated in (10) for Kande (B32). Example (10a) from Grollemund (2006:181) illustrates a negated sentence with the negation clitic -*si*- (our glossing). In contrast, (10b) shows the phasal polarity item *na*-, which differs from the negation marker in form and position. The example is from Grollemund (2006:192); the glossing is from Löfgren (2019:24).

(10) a. Ma-**si**-tol-à.
       1sɢ-ɴᴇɢ-sing-ғv
       'I did not sing.'

                b. Na-ma-tol-à.
                not.yet-1sɢ-sing-ғv
                'I have not yet sung.'

The **Mabia languages** also belong to the large family of the Niger-Congo languages. They are spoken in the Sahelian and Savanna regions of West Africa, namely in Burkina Faso, southern Mali, northeastern Ivory Coast, the northern regions of Ghana and Togo, northwestern Benin, and southwestern Niger. There are about 70 languages belonging to this group. It should be noted that the literature on these languages is generally scarce, especially when compared to the Bantu languages, which of course includes literature on negation. The few exceptions are descriptive works on singular languages and phenomena. Differing from the Bantu languages, the Mabia languages show a tendency to isolating morphology and verbs are mostly inflected only for aspectual information. In general, negation is typically expressed by a free morpheme between the tense marker and the verb, as shown in (11) for Dagbani (Issah 2023; Olawsky 1999).

(11) Mburidiba sà **bì** dá-rí búkù-nìmá máá.
      Mburidiba ᴘsᴛ ɴᴇɢ buy-ɪᴘғv book-ᴘʟ ᴅᴇғ
      'Mburidiba was not buying the books yesterday.'

Some Mabia languages exhibit additional postverbal negative markers. In Buli, a postverbal negative morpheme may appear, emphasizing the negation (12), Schwarz (1999). Postverbal negations also appear in Pana (Beyer 2003) and Dagaare, see (13) from fieldnotes by the P.I.s. In all cases, the interpretation is that of a simple negation, yet the distribution is not very well understood. Triple negation marking is rarely attested, see Winkelmann & Miehe (2009:172).

(12) Fí **àn** dìgi lām **ā**.
2SG NEG cook meat NEG
'You did NOT cook meat.'

(13) Adam **bɛ** ton-e-**ŋ**.
Adam NEG work-PROG-NEG
'Adam does not work.'

We start our discussion again with interactions lower in the clause. Both language families to be investigated in this project exhibit conjoint-disjoint marking, with CJ often related to a focal interpretation (Buell 2006, van der Wal 2011). Some of the Mabia languages replicate the interaction outlined above for the Bantu languages, in that negation neutralizes the CJ/DJ distinction in various languages and blocks the occurrence of the particular marker (Issah 2023, van der Wal 2017). This phenomenon, which has not received a formal analysis, is shown in (14) and (15) for Dagbani (Samuel Issah, p.c.; see also Issah 2015) where the negation in the perfective aspect blocks the occurrence of DJ-marking, see (15b). For parallel data in Kusaal, see Abubakari (2018:103) and Musah (2018).

(14) a. Bɛneeti dí-r-á.
Beneeti eat-IPFV-DJ
'Beneeti is eating.'

b. Bɛneeti **bì** dí-r-á.
Beneeti NEG eat-IPFV-DJ
'Beneeti is not eating.'

(15) a. Bɛneeti dí-yá.
Beneeti eat-PFV-DJ
'Beneeti ate.'

b. Bɛneeti **bì** dí / *dí-yá.
Beneeti NEG eat.PFV / *eat.PFV-DJ
'Beneeti didn't eat.'

This blocking effect of the DJ marker is observed with other functional categories as well, such as wh-operators, focus, coordination, and relative clauses, suggesting some shared property between negation and these operators. The fact that it is only observable with perfective and not with imperfective verbs points to a structural difference between the two aspects.

The formal inventory of negation markers is subject to massive variation in the languages (Bodomo 1997, Winkelmann and Miehe 2009, Issah 2023). This concerns not only different lexical choices according to tense, aspect, and mood, but also extends to predicative constructions where the copula changes its form under negation. Starting with the former, it can be observed across Mabia languages that the negation marker varies according to tense and aspect. Thus, the negation marker *bì* in the Dagbani past sentence in (15b) obligatorily changes to form *kù* in the future tense. *Kù* replaces the affirmative future marker *ni* in expressing future and negation at the same time (Olawsky 1999, Issah 2023). Similar variation can be observed in Gurene, see Atintono (2011). In Kasem, the negator in the perfective is *wʋ̀* (17a), *bī* in the imperfective (17b), and *wá* in the future (17c), the latter is again a suppletive form of the affirmative future marker, cf. Bonvini (1990) (English glosses and translations ours).

(16) a. O ni chaŋ Tamale.
3SG FUT go Tamale
'He will go to Tamale.'

b. O **ku** chaŋ Tamale.
3SG NEG.FUT go Tamale
'He will not go to Tamale.'

(17) a. Bŭ wʋ̀m **wʋ̀** vàgì.
child DEF NEG dig.PFV
'The child did not dig.'

b. Bŭ wʋ̀m **bī** vàrà.
child DEF NEG.IPFV dig.IPFV
'The child is not digging.'

c. Bŭ wʋ̀m **bá** và.
child DEF NEG.FUT dig
'The child will not dig.'

In Kusaal, future and perfective negation are differentiated tonally, see (18a,b) from Bodomo (2020:15). This is confirmed by Abubakari (2018:93), who also mentions the tonal distinction, but does not compare the two forms to each other. In our fieldnotes, we could attest an alternative strategy whereby in the future tense, the negative future marker is *ku*, a suppletive form of the affirmative future marker *na*, see (18c).

(18) a. Ḿ **pú** kúà.
1SG NEG.PFV farm
'I did not farm.'

b. Ḿ **pù** kùà.
1SG NEG.FUT farm
'I will not farm.'

c. Alasidaar Danaa **kʋ** yʋ'ʋm pʋ'ʋsimin-ɛ.
Sunday Danaa NEG sing church-FV
'On Sunday, Dana will not sing in the church.'

Turning briefly to the latter point, the Mabia languages use different copulas in locative and nominal predication structures which have suppletive forms when negated. In Dagbani, the locative copula in an affirmative predication structure is *bé*, but changes to *ká* in the negative. Nominal predication constructions use the copula *niela*, which becomes *pá* if negated. The cross-linguistic variation with predication structures is manifold and, apart from a documentation of the inventory in some of the languages, completely under-researched.

Again, following the case of the Bantu languages, the Mabia languages also exhibit sensitivity of the negation system to the mood of the sentence, especially the imperative. As argued by van der Auwera (2006), the property of negation with respect to selecting for stative situations may also account for the fact that languages have a special strategy for negating imperatives. This can be shown again for Dagbani, which employs a dedicated negative imperative morpheme that additionally blocks an imperative-specific disjoint marker, see Issah (2023). Similarly, for Kusaal, which has an affirmative imperative marker *sáá* that is replaced by the suppletive form *dá* in the negative future, see (19) from Abubakari (2018:94), and (20) for Pana (Beyer 2003:8) where a special negative imperative marker *bá* is used, in addition to object inversion, which typically comes with negation in this language.

(19) a. Fʊ̀   sáá   būōlí-m!
     2SG FUT.IPFV call-1SG.ACC
     'Do call me!'

b. **Dá**   būōlí-má!
   NEG.IPFV call-1SG.ACC
   'Don't call me.'

(20) a. Ŋɔ́   sìmá!
     drink beer
     'Drink beer!'

b. **Bà** sìmá   ŋɔ́   ya!
   NEG beer   drink FE
   'Don't drink beer.'

More complex issues, such as negative polarity or negative concord, have not been investigated in the Mabia languages so far.

To conclude, there exists quite some formal variety concerning the expression of negation in the Mabia languages, and the variation is driven by tense, aspect, and mood. Yet, it remains unclear why negation should vary according to these dimensions. A theoretical gap concerns the poor understanding of the syntactic structure of the functional projections in general, as well as the lack of an explanation for their interaction with negation, see **Mursell** and **Hartmann** (2020). Issah (2023) represents a notable exception. He analyzes the negative marker in Dagbani as realizing the head of a NegP below TP but above AspP and attributes the various instantiations of the negation elements to lexical choice. The double function of, e.g., *dí* as involving negation and imperative morphology in Dagbani is, according to Issah, due to fusion of the two heads at PF. Although Issah's analysis represents an attempt to relate the morphosyntactic variety of negation to structural aspects of the language, the theory is not without flaws, which we discuss in section 3.4.

Section 3.3.1 has shown that despite the many differences between the Bantu and the Mabia languages, including the formal expression of the negation markers, there are also striking similarities when it comes to the interactions of the negation with other functional elements. Such parallels were observed at all functional levels of the sentential spine. We will take this observation as a starting point in our project plan in section 3.4.

3.3.2 Project- and subject-related list of publications

Aboh, Enoch O., **Katharina Hartmann** & Malte Zimmermann (eds.). 2007. *Focus Strategies in African languages: The Interaction of Focus and Grammar in Niger-Congo and Afro-Asiatic*. Berlin: Mouton de Gruyter.

Aboh, Enoch O. 2004. *The Morphosyntax of Complement-Head Sequences.* Oxford: Oxford University Press.

Aboh, Enoch O. 2009. Clause structure and verb Series. *Linguistic Inquiry* 40(1): 1–33.

Abubakari, Hasiatu. 2018. Aspects of Kusaal Grammar: The Syntax-Information Structure Interface. Ph.D. dissertation, University of Vienna.

Amaechi, Mary. 2020. A'-movement dependencies and their reflexes in Igbo. Ph.D. dissertation, Potsdam University.

Atintono, Samuel. 2011. *Verb Morphology: Phrase structure in a Gur Language (Gurenɛ).* Saarbrücken: Lambert Academic Publishing.

Baier, Nicholas Benson. 2018. Anti-Agreement. Ph.D. dissertation, University of California, Berkeley.

Beaver, David I. & Brady Z. Clark. 2008. *Sense and sensitivity: How focus determines meaning.* Hoboken: Wiley-Blackwell.

Beck, Sigrid. 1996a. Quantified Structures as Barriers for LF Movement. *Natural Language Semantics* 4: 1–56.

Beck, Sigrid. 1996b. Wh-Constructions and Transparent Logical Form. Ph.D. dissertation, University of Tübingen.

Beyer, Klaus. 2003. Focus and negation in Panna: a common source for different functions? *Afrika und Übersee* 86: 5–21.

Bobaljik, Jonathan D. 2012. *Universals in Comparative Morphology: Suppletion, Superlatives, and the Structure of Words.* Cambridge, MA: MIT Press.

Bodomo, Adams. 1997. *The structure of Dagaare.* Stanford: CSLI Publications.

Bodomo, Adams. 2020. Mabia: Its genesis, geographical spread, and some salient genetic features. In Bodomo, Adams, Hasiyatu Abubakari, & Samuel Alhassan Issah (eds.). *Handbook of the Mabia Languages of West-Africa*, 5–34. Glienicke: Galda Verlag.

Bonvini, Emilio. 1990. La negation en Kasim. *Linguistique Africaine* 4: 9–29.

Buell, Leston. 2006. The Zulu conjoint/disjoint verb alternation: Focus or constituency? *ZAS Papers in Linguistics* 43: 9–30.

Cruschina, Silvio, **Katharina Hartmann** & Eva-Maria Remberger (eds.). 2017. *Negation: Syntax, Semantics & Variation*. Vienna University Press.

De Clercq, Karen. 2018. Syncretisms and the morphosyntax of negation. In Lena Baunaz, Karen De Clercq, Liliane Haegeman & Eric Lander (eds.). *Exploring Nano-syntax*, 180–204. Oxford: Oxford University Press.

De Clercq, Karen. 2020a. *The Morphosyntax of Negative Markers. A Nanosyntactic Account.* Berlin: Mouton de Gruyter. https://doi.org/10.1515/9781501513756

De Clerq, Karen. 2020b. Tense and sentential negation. A typological perspective. *Linguistics in the Netherlands* 37: 71–89.

Deal, Amy Rose. 2018. Locality in allopmorphy and presyntactic bundling: A case of tense and aspect. *Snippets* 34: 8–10.

Devos, Maud & Johan van der Auwera. 2013. Jespersen cycles in Bantu: double and triple negation. *Journal of African Languages and Linguistics* 34(2): 205–274.

Devos, Maud & Daniël Van Olmen. 2013. Describing and explaining the variation of Bantu imperatives and prohibitives. *Studies in Language* 37(1): 1–57.

Embick, David. 2010. *Localism versus Globalism in Morphology and Phonology.* Cambridge, MA: MIT Press.

Ernst, Thomas. 1995. Negation in Mandarin Chinese. *Natural Language and Linguistic Theory* 13. 665–707.

Etxepare, Ricardo & Myriam Etxeberria. 2007. On negation and focus in Spanish and Basque. *Anuario del Seminario de Filología Vasca "Julio deUrquijo"* 51: 287–309.

Givón, Talmy. 1975. Focus and the scope of assertion: Some Bantu evidence. *Studies in African Linguistics* 6(2): 185–205.

Grollemund, Rébecca. 2006. Les Okandé du Gabon, locuteurs d'une langue en danger (langue bantoue du groupe B 30) - Langue et culture. Master's Thesis. Université Lumière Lyon 2.

Guérois, Rozenn, Hannah Gibson & Lutz Marten. t.a. A parametric approach to negation in Bantu languages. In Eva-Marie Bloom Ström, Hannah Gibson, Guérois & Lutz Marten (eds.). *Current approaches to morphosyntactic variation in Bantu*. Oxford: Oxford University Press.

Güldemann, Tom. 1999. The genesis of verbal negation in Bantu and its dependency on functional features and clause types. In Jean-Marie Hombert & Larry M. Hyman (eds.). *Bantu historical linguistics: theoretical and empirical linguistics*, 545–587. Stanford: CSLI Publications.

Guthrie, Malcolm. 1948. *The classification of the Bantu languages.* London, New York: International African Institute and Oxford University Press.

Gutzmann, Daniel, **Katharina Hartmann** & Lisa Matthewson. 2020. Verum focus is verum, not focus. *Glossa: a journal of general linguistics* 5(1): 51. DOI: https://doi.org/10.5334/gjgl.347

Haegeman, Liliane. 1995. *The Syntax of Negation.* Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511519727

Halle, Morris, & Alec Marantz. 1993. Distributed Morphology and the pieces of Inflection. In Ken Hale, & Jay Keyser, (eds.). *The View from Building 20*, 111–176. Cambridge, MA: MIT Press.

Halpert, Claire. t.a. The Augment. In Lutz Marten, Nancy Kula, Ellen Hurst & Jochen Zeller (eds.). *The Oxford Handbook of Bantu Linguistics.* Oxford: Oxford University Press.

Hartmann, Katharina & Malte Zimmermann. 2012. Focus Marking in Bura: Semantic Uniformity matches Syntactic Heterogeneity. *Natural Language and Linguistic Theory* 30(4): 1061–1108.

Hartmann, Katharina & Malte Zimmermann. 2007. In Place – Out of Place: Focus in Hausa. In Kerstin Schwabe & Susanne Winkler (eds.). *On Information Structure: Meaning and Form*, 365–403. Amsterdam: John Benjamins.

Hyman, Larry & Felix X. Katamba. 1993. The Augment in Luganda: Syntax or Pragmatics? In Sam A. Mchombo (ed.). *Theoretical Aspects of Bantu Grammar*, 209–256. Stanford: CSLI.

Issah, Samuel A. 2015. Conjoint and disjoint verb alternations in Dagbani. *Ghana Journal of Linguistics* 4(2): 29–63.

Issah, Samuel A. 2023. The structure of Dagbani sentential negation. *Studia Linguistica* 77(1). https://doi.org/10.1111/stul.12209

Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar.* Boston, Masss: MIT Press.

Jespersen, Otto. 1917. *Negation in English and other languages.* København: A.F. Høst & Søn.

Julien, Marit. 2002. *Syntactic heads and word formation.* Oxford: Oxford University Press.

Kalin, Laura & Coppe van Urk. 2015. Aspect split without ergativity. Natural Language and Linguistic Theory 33(2): 659–702. DOI 10.1007/s11049-014-9262-8

Kouagang, Elisabeth N. & Mark Van de Velde. 2019. Kwakum A91. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.). *The Bantu Languages. Second edition*, 383–414. New York: Routledge.

Löfgren, Althea. 2019. Phasal Polarity in Bantu Languages. Master's Thesis. Stockholm University.

Matthews, Stephen. 1990. A cognitive approach to the typology of verbal aspect. Ph.D. dissertation, University of Southern California.

Marten, Lutz, Peter Edelsten, Hannah Gibson & Rozenn Guérois (eds.). 2018. Morphosyntactic Variation Database. Electronic resource. London: SOAS.

Miestamo, Matti. 2005. *Standard negation: the negation of declarative verbal main clauses in a typological perspective.* Berlin: Mouton de Gruyter.

Miestamo, Matti & Johan van der Auwera. 2011. Negation and perfective vs. imperfective aspect. *Cahier Cronos* 22: 65–84.

Mursell, Johannes. 2018. Object marking in Swahili is topic agreement. *Jezikoslovlje* 19: 427–455.

Mursell, Johannes. 2021. *The Syntax of Information-Structural Agreement.* Amsterdam: John Benjamins.

Mursell, Johannes & **Katharina Hartmann**. 2020. Review of: Bodomo, Adams, Hasiyatu Abubakari & Samuel Alhassan Issah. 2020. Handbook of the Mabia Languages of West Africa. Glienicke: Galda Verlag. *JWAL* 47(2): 108–115.

Musah, Agoswin A. 2018. *A grammar of Kusaal.* Frankfurt am Main: Peter Lang.

Muzenga, Kamba J. G. 1981. *Les formes verbales négatives dans les langues bantoues* (Unpublished doctoral dissertation). Brussels: Université libre de Bruxelles, Faculté de Philosophie et Lettres.

Ngoboka, Jean Paul & Jochen Zeller. 2017. The conjoint/disjoint alternation in Kinyarwanda. In Jenneke van der Wal & Larry Hyman (eds.). *The conjoint/disjoint alternation in Bantu*, 350–390. Berlin: Mouton de Gruyter.

Ngonyani, Deo. 2001. The morphosyntax of negation in Kiswahili. *AAP* 86: 17–31.

Nurse, Derek. 2008. *Tense and aspect in Bantu.* Oxford: Oxford University Press.

Ouhall, Jamal. 1993. Subject extraction, negation, and the Anti-Agreement Effect. *Natural Language & Linguistic Theory* 11(3): 477–518.

Olawsky, Knut J. 1999. *Aspects of Dagbani Grammar.* München: Lincom.

Petzell, Malin, & Karoline Kühl. 2017. The influence of non-linguistic factors on the usage of the pre-prefix in Bantu. *Linguistic Discovery* 15(1): 35–48.

Petzell, Malin & Lotta Aunio. 2019. Kami G36. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.). *The Bantu Languages. Second edition*, 563–591. New York: Routledge.

Poletto, Cecilia. 2008. The syntax of focus negation. *Quaderni di Lavoro ASIt* 10: 39–61.

Pollock, Jean-Yves. 1989. Verb-Movement, Universal and the structure of IP. *Linguistic Inquiry* 20(3): 365–424.

Ramchand, Gillian. 1997. *Aspect and Predication. The Semantics of Argument Structure.* Oxford: Clarendon Press.

Schmid, Maureen Alicia. 1980. Co-occurrence restrictions in negative, interrogative, and conditional clauses: a cross-linguistic study. Ph.D. dissertation, SUNY Buffalo.

Smith, Carlota S. 1990. *The parameter of aspect.* Dordrecht: Kluwer.

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Schwarz, Anne. 1999. Preverbal negative markers in Buli. *Cahiers Voltaïques / Gur Papers* 4: 91–98.

de Swart, Henriette & Arie Molendijk. 1999. Negation and the temporal structure of narrative discourse. *Journal of Semantics* 16: 1–42.

Travis, Lisa. 2000. Event structure in syntax. In Carol Tenny & James Pustejovsky (eds.). *Events as grammatical objects: the converging perspectives of lexical semantics and syntax*, 145–185. Stanford, CA: CSLI.

Van de Velde, Mark. 2019. Nominal morphology and syntax. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.). *The Bantu Languages. Second edition*, 237–270. New York: Routledge.

van der Auwera, Johan. 2006. Why languages prefer prohibitives. *Journal of Foreign Languages* 1: 1–25.

van der Wal, Jenneke. 2011. Focus excluding alternatives: Conjoint/disjoint marking in Makhuwa. *Lingua* 121(11): 1734–1750.

van der Wal, Jenneke. 2017. What is the conjoint/disjoint alternation? In Jenneke van der Wal & Larry Hyman (eds.). *The conjoint/disjoint alternation in Bantu*, 14–60. Berlin: Mouton de Gruyter.

van der Wal, Jenneke. 2022. *A Featural Typology of Bantu Agreement*. Oxford: Oxford University Press.

van der Wal, Jenneke & Larry Hyman (eds.). 2017. *The conjoint/disjoint alternation in Bantu*. Berlin: Mouton de Gruyter.

Winkelmann, Kerstin & Gudrun Miehe. 2009. Negation in Gur. In: Norbert Cyffer, Erwin Ebermann & Georg Ziegelmeyer (eds.). *Negation patterns in West African languages and beyond*. John Benjamins Publishing Company. 167–203.

Weisser, Philip. 2019. Telling allomorphy from agreement. *Glossa: a journal of general linguistics* 4(1): 86. doi: https://doi.org/10.5334/gjgl.803

Zanuttini, Raffaella. 1991. Syntactic properties of sentential negation: A comparative study of Romance languages. Ph.D. dissertation, University of Pennsylvania.

Zanuttini, Raffaella. 1994. Speculations on negative imperatives. *Rivista di linguistica* 6, 119–142.

Zanuttini, Raffaella. 1997a. Negation and verb movement. In Liliane Haegeman (ed.). *The new comparative syntax*, 214–245. London & New York: Longman.

Zanuttini, Raffaella. 1997b. *Negation and Clausal Structure*. Oxford: Oxford University Press.

Zeijlstra, Hedde. 2022. *Negation and negative dependences*. Oxford: Oxford University Press.

3.4   PROJECT PLAN

Goals and objectives

The main goal of this project is the investigation of the interaction of negation with other functional elements at different levels of the clause from a cross-linguistic perspective. With this aim, we directly contribute to the overarching research question of the CRC, which is the evaluation of the Neg-Plus Hypothesis in comparison to the Neg-Only Hypothesis. The language groups to be investigated in the project represent an ideal testing ground for this endeavor, given that negation in the Niger-Congo languages entertains intricate morphosyntactic relationships with various categories in its syntactic context. The main goal of the project is split up into two sub-goals:

(i) The first sub-goal is the extension and propagation of theoretical and analytical work on the Niger-Congo languages by adding substantial syntactic analyses of the tense, aspect and mood systems of the languages under scrutiny. Preparatory work on the Mabia languages is actually carried out in the project "The interaction of focus, aspect, and verbal morphology at the vP-periphery in the Mabia languages of Ghana" (DFG HA 2343/1-1c), see also section 3.6. This project provides fundamental insights into the focus systems of a set of seven Mabia languages and develops basic syntactic analyses of them.

(ii) The second sub-goal is the comparison of negation patterns in two distantly related families of the Niger-Congo phylum with the aim to find common cross-linguistic traits. At the same time, it will be interesting to find out whether and to what extent such properties compete with language-internal features. Again, this goal directly contributes to the overarching goal of the CRC: If the Neg-Plus hypothesis holds, we expect that negation interacts in systematic ways with other elements in the structure. In other words, under this hypothesis, similar patterns are expected in these only distantly related language families, which might give a first indication of why we find these striking similarities in the behavior of negation. On the other hand, the Neg-Only hypothesis leaves much more room for language and language family specific variation. Thus, we are directly addressing the central question QB of area B of the CRC:

QB: How can we explain similarities and interactions between negation and other grammatical categories?

In order to achieve our goals, we have structured the workload into three work packages. From a morphological perspective, we can ask the question about the status of the negation in the various languages (affix or independent morpheme, head or phrase) and how the different forms can be accounted for? From a syntactic perspective, are we dealing with different types of negation or are all the occurrences based on the same underlying negation, and how can the various interactions and blocking effects be analyzed?

WP1: Syntax and morphology of negation

In this work package, we will pay special attention to possible micro-variation within the language families, and, at the same time, aim at deriving parallel traits within the Niger-Congo phylum. By following this approach, we will pursue our goal to find out whether negation and the observed restrictions pattern alike even in languages that are only distantly related. WP1 addresses question QB.1 and QB.2 of the CRC:

QB.1: What commonalities between negation and other grammatical categories are universal?

QB.2: To what extent do negation and other grammatical categories behave similarly or differently within and across languages?

We will develop formal syntactic analyses of the various observable phenomena involving negation in the Mabia and Bantu languages. The analysis of simple negation seems to be rather straightforward in that it appears to head a NegP above the AgrSP hosting subject agreement in Bantu, and above the AspP hosting aspect marking in Mabia languages. However, the picture becomes immediately more complex when looking at double negation as attested in both language families. Given that both negations are involved in forming the verbal complex in the Bantu languages, both must be heads of separate NegPs (for proposals of multiple NegPs in one clause, cf., e.g., the contributions in Cruschina et al. 2017). Note, though, that the two negation heads exhibit an asymmetric behavior in that only the higher negation has the potential to fuse with other heads, as evidenced for Kami in (4). In the Mabia languages, the phenomenon of double negation is also observed, however there is a categorical difference between the two negations in that only the lower one is a verbal clitic. Thus, verb movement stops at AspP, which would follow from the assumption of a single NegP with the higher negation being located in the Spec-NegP. This assumption, however, is not compatible with the higher negation's potential to fuse with other heads, for instance with the tense morpheme in the future. In all cases, the interpretation of the double negation structures is that of a simple negation. This raises the question as to how this is possible in the view of two separate NegPs. In order to account for this, we will extend our research to negative concord and negative polarity in the project languages, see WP3 for a description.

WP2: Negation interactions

The second area of investigation concerns the analysis of the various interactions between negation and other functional projections along the clausal spine. It directly addresses QB.3 of the CRC:

QB.3: How do negation and other grammatical categories interact within and across languages?

The first level of interaction deals with negation and the TAM system. Starting with the aspectual system, which is often assumed to be encoded immediately above the vP (or sometimes even below, cf. Ramchand 1997; Travis 2000), there is ample evidence that the perfective and imperfective aspects differ structurally in both languages families. This is suggested indirectly by the different choices of the negation markers in the two aspects, as showcased for Swahili in (5) and (6), and for Kasem in (16). We hypothesize that the different lexical choices of the negative markers are closely related to different underlying syntactic structures of the two aspects. Thus, it has been argued that the imperfective aspect is more complex in that it often involves nominal projections, see Aboh (2004, 2009) for a number of African languages. Kalin & van Urk (2015) propose a similar syntactic differentiation of aspects with respect to case marking. Both language families make massive use of morpho-syntactic markers to express various syntactic categories and relations. At the same time, these markers are highly homophonous, with the same marker occurring in seemingly very different syntactic environments within and across languages. A potential way to interpret this variation is to take the respective markers as indicative of a certain underlying structure thereby revealing unexpected syntactic dependencies. We also see interactions between negation and tense, which is encoded higher than aspect. The future appears to be special in this respect in that the negative future marker often has a suppletive form in the Bantu as well as the Mabia languages. Whether this reflects a modal representation of tense, or needs to be accounted for differently, needs to be investigated. Similar restrictions

are not common in the Mabia languages for the other tense markers which appear with the regular negation marker. The single exception we became aware of during fieldwork is Kasem, where tense marking interacts further with negation. Turning to the Bantu languages, the interaction of negation with the other tense markers is extremely prevalent (cf. Muzenga 1981). We will evaluate Issah (2023), who proposes a phonological fusion analysis of two syntactic heads in Dagbani. Our evaluation will be based on a thorough investigation of the tense system in the Bantu and Mabia languages.

Turning to the CP level, we will investigate interactions of negation and focus. It is well known that negation interacts with focus (Jackendoff 1972; Beaver & Clark 2008) and such interaction can also be observed in the languages under investigation in this project. One aspect mentioned in section 3.3.1 concerns the conjoint / disjoint distinction and its close relation to negation and focus. With both, the disjoint marker must be absent in the Bantu and Mabia languages. We assume that this is related to the A-bar-properties of focus and negation, which additionally appear to block verb movement. A satisfactory account of this blocking effect is still not available. A possible theoretical explanation is further complicated by the robust observation that the restriction exists only in the perfective, not in the imperfective aspect in the Mabia languages, thereby revealing yet another intricate relation between the aspectual and operator systems of the respective languages.

Negation in the two families also impacts the highest domain of the clause, the speech act domain. It has been observed for individual Mabia and Bantu languages that negation leads to asymmetries with respect to the expression of the imperative, i.e., negation requires a particular imperative marker thereby blocking other markers from occurring. However, the picture is far from complete. We will first investigate whether similar interactions exist in other languages of the families as well. Second, we would like to test whether these asymmetries show up with other negated speech acts (such as optatives, denials, refusals, etc.) as well. The leading question will again be how to account for these effects in the higher clausal projections syntactically. In addition to an impact on the imperative, Bantu languages often use distinct inventories of negation markers for main and embedded clauses, respectively, frequently also marking negation in different positions in the two clause types (pre- vs. post-initial negation in the terms of Güldemann 1999). Again, the question to be answered in the project will be if and how this can be integrated into the more general theory of negation to be developed for the languages.

Addressing the topic from a more theoretical perspective, there are several theoretical options that the observations above suggest. Note that all the interactions require some kind of locality between the negation and the interacting element, which reveals important syntactic properties of the negation marker. Thus, we assume that the local relationship between the negation and the interacting element can diagnose the morphosyntactic status of the negation as well as its syntactic position in the clause. One possibility to account for the interactions is by taking them to express allomorphy, which has been argued to be constrained by strict locality between the target and the trigger of the process (e.g., Embick 2010; Bobaljik 2012; Deal 2018). Recall that Swahili exhibits negation allomorphs depending on aspect and tense (examples (5) and (6)). This could be taken to show that negation in Swahili is most probably a head located at the tense-aspect system of the language. A second phenomenon concerns portmanteau morphemes. If it is true that such morphemes can only express contiguous heads (Halle & Marantz 1993), a portmanteau such as the negative future marker *ku* in Dagbani (example (16b)) could then suggest that the negation marker is located adjacent to T.

Alternatively, a syntactic way to account for the observed interactions is by agreement, for example, based on a NEG-feature. Note that agreement could derive the effects across a larger distance easily, thus foiling the diagnostics provided for the allomorphy account. It is not trivial to decide between the two theories, see Weisser (2019). One way to distinguish between the two are the presence of intervention effects, as investigated by Beck (1996a; 1996b), since these are predicted in an Agree-based system. Possibly, the distribution of the disjoint marker in both the Mabia and the Bantu languages, and its obligatory absence under negation (and other A'-dependencies), could be argued to follow from such intervention effects. Whether negation itself acts as an intervener or not in the languages of our sample could be also investigated by looking at so-called Anti-Agreement effects, where the expected agreement between mainly verbs and subjects is blocked in certain constructions (Ouhalla 1993, Baier 2018). For the Bantu languages, this could be taken as a valid diagnostic, as these, in contrast to the Mabia languages, show subject agreement.

WP3: Extensions

The third WP will be dedicated to the investigation of further phenomena that are related to WP1 and WP2. Especially the investigation of the expression of verum and polarity (see Gutzmann et al. 2020) in African languages will be of interest, given that negation is immediately involved in this system and at the same time, this topic has been extremely under-researched in African linguistics in general. We will also include research on negative islands, negative concord, and negative polarity, all phenomena hitherto not yet researched systematically.

A further extension concerns the encoding of information structure at other points in the structure in addition to the CP and its interaction with negation. Again, this area is highly under-researched; thus, it is expected that the project reveals novel insights here, relating this effect, for example, to potential alternatives invoked or excluded by focus and negation, respectively. For Bantu, it has been argued that a certain type of topicality might be encoded in the vP as well (cf. **Mursell** 2018, **Mursell** 2021, van der Wal 2022), whereas in the Mabia languages, there is an increasing amount of evidence for low particles marking focus ("The interaction of focus, aspect, and verbal morphology at the VP-periphery in the Mabia languages of Ghana", DFG HA 2343/1-1c). Thus, we will investigate interactions of negation with information-structural encoding not just for the CP, but also for lower parts of the clause (c.f. also one of the P.I.'s previous work in Aboh et al. 2007; **Hartmann** and Zimmermann 2007, 2012). The loss of the augment under negation might be a case in point here, as the presence of the augment itself has frequently been linked to information structure (Petzell & Kühl 2017, Halpert t.a.). Again, the research directly addresses the general research question QB of the CRC, as more complex forms of negation pose the question whether they are similar to other elements and / or interact with the functional projections in their context.

The phenomena to be investigated as part of WP3 appear as a straightforward extension of research in WP1 and WP2. At the same time, they present such a significant increase in the number of phenomena under scrutiny here that they strike us as a good point for transition into a potential second phase of the CRC.

Work plan

We will proceed as follows. We plan three fieldwork trips where we elicit all data from the three work packages. The fieldwork trips will take place in the 3rd quarter of the second and third year to Ghana and Kenia. The third fieldwork trip will take place in the second quarter of the fourth year and will take place in Ghana and South Africa. Each WP starts with a review of the relevant literature, which will be more and more theoretical.

In WP1, we start by researching literature on the formal inventory of negation in the Mabia and Bantu languages, respectively. This includes the study of grammars where the relevant information is often not easily accessible, for instance due to the lack of proper glossing. For some Bantu languages, there are corpora that we intend to use, see also the methodology section. These searches will allow us to formulate first generalizations concerning the form and position of the negation markers in the languages investigated. We will then begin to develop the methods for our fieldwork, especially the questionnaire, but also additional materials. The analysis of the data and publication of the results will be a continuous occupation of the project. Apart from interviews during fieldwork, we also aim to recruit speakers in Germany and other European countries. WP2 then investigates the interaction of the negation marker with the functional projections in the clause.

On the one hand, WP2 builds on the insights gained in WP1, but it may also be that certain morpho-syntactic properties of negation may be determined only once we understand the interactions with the other functional projections better. Thus, WP1 and WP2 run mostly at the same time and are also structured in parallel. WP3 investigates empirical and theoretical extension and starts in the second half of the project. It is based on the insights gained in the first two WPs and contains topics that will give an outlook on a potential second phase of the project.

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	2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WP1																
lit. search	■	■	■	■												
methodology			■	■	■	■										
fieldwork							■				■			■		
data analysis			■	■	■	■	■	■								
publication									■	■	■	■	■	■	■	■
WP2																
lit. search			■	■	■	■	■	■								
methodology						■	■	■								
fieldwork							■				■			■		
data analysis							■	■	■	■	■	■				
publication								■	■	■	■	■	■	■	■	■
WP3																
lit. search							■	■	■	■						
methodology											■					
fieldwork											■			■		
data analysis									■	■	■	■	■	■		
publication									■	■	■	■	■	■	■	■

METHODOLOGY AND LANGUAGE CHOICE

<u>Elicitation</u>: This project aims to compare a larger number of languages from the Niger-Congo phylum. The research will be based on systematically elicited data. This will guarantee comparability of the results across the languages. The elicitation will be based on a questionnaire containing grammaticality judgments as well as translation tasks as the main strategies. Additional materials such as controlled story telling tasks will also be included. The questionnaire will be developed by the project team during the first phase of the project and will be applied to both the Bantu and the Mabia languages. The development of this questionnaire will profit from the methodological experience gathered in project DFG HA 2343/1-1c (see above), which will be used as a model for this new project. In addition, we will use certain tasks from the "Questionnaire on Information Structure" (QUIS, Skopeteas et al. 2006, https://www.sfb632.uni-potsdam.de/en/quis.html). QUIS has been developed by members of the CRC 632 ("Information Structure", 2003-2015), in which the P.I.s also participated (Katharina Hartmann as P.I. of different projects and Johannes Mursell as member of the integrated graduate school), as a general tool to elicit data on information structure where negation plays a crucial role when it comes to contrastive focus. It is therefore very suitable to investigate the cross-linguistically observed relationship between focus and negation. In developing this questionnaire, we will closely cooperate with our colleagues in the CRC in support of the overarching goal of the CRC to provide methodological strategies for the elicitation of negation data. For Bantu languages, the data elicitation can be supplemented by corpora research (Marten et al. 2018). Project B3 will collaborate with the INF project in the following ways: Our data will be stored in the INF database. Annotation tools and schemas will be developed/re-used in collaboration with INF.

Based on the existing data from the literature, first hypotheses have been formulated, which will also influence the setup of the project's questionnaire. The questionnaire will be used to gather a broad array of relevant comparable data from various Bantu and Mabia languages (see below for the choice of the languages). The data will be used to formulate strong hypotheses which will then undergo an intense testing in a second phase of data elicitation. The data will be recorded with a digital recorder for phonetic and potentially phonological tone as well. We will use our questionnaire in direct one-to-one elicitation situations, which we think is necessary given the complexity of the phenomena we investigate.

<u>Language choice</u>: The final choice of the project languages will depend on various different factors: (i) available descriptions in the literature (see section 3.3.1), (ii) options and possibilities for fieldwork, (iii) preliminary work and connec-

tions already established by the two P.I.s. Given these premises, we will aim at a representative and balanced set of Bantu and Mabia languages for the project. Concerning the Mabia languages, we plan to work on the set of seven languages that we are currently investigating in the project on the vP-periphery in the Mabia languages. Since we have close contacts with speakers of these languages, we think that this goal is realistic. Concerning the Bantu languages, we cannot really anticipate the number of languages we will be able to work on, as the variation is much larger in this language family and connections to speakers mostly still need to be established. We are planning to integrate 3 to 4 languages in our research as outlined in the next paragraph. However, as frequently mentioned above, Eastern and Southern Bantu languages appear to show many of the interactions of negation of interest to the project, so that the focus will be on Bantu languages from these areas.

Fieldwork: The data elicitation will be done during four fieldwork trips. For the Mabia languages, we plan on one fieldwork trip in the second year to the University of Accra for the two P.I.s and one doctoral researcher. Due to the already established connections and the background provided by DFG HA 2343/1-1c, we estimate that this will be a good starting point for data elicitation. For the doctoral researcher, we also take into consideration a second fieldwork trip in year 4, again to Accra. For the Bantu languages we are planning two fieldwork trips. The first one in year three will involve the two P.I.s and one doctoral researcher traveling to work at the Department of Linguistics and Languages of the University of Nairobi, where we intend to investigate the project questions starting with Swahili. Given the background of the P.I. Johannes Mursell (**Mursell** 2018, 2021), we are convinced that this would be an ideal starting point. In addition, various other well documented Bantu languages, for example Kikuyu, are spoken in the region, enabling us to gather data from various languages at this destination. Our second trip in year 4, again involving both P.I.s and the doctoral researcher, will be to the Department of Linguistics of the University of KwaZulu-Natal in Durban, where we plan on investigating negation properties in the Nguni subgroup, which includes rather well documented languages like Zulu, Xhosa and Ndebele, in cooperation with Prof. Jochen Zeller. Again, due to being based at a well-known university in the region, we anticipate encountering speakers of other Bantu languages as well. In general, these two field trips cover languages in the Regions E (with Swahili actually being a language of the G area) and S in the classification of Bantu languages according to Guthrie (1948). This is done with the intention to prevent our results from being biased by properties potentially restricted to a particular subgroup of the extensive Bantu language family.

Networks: For the Mabia languages, we have already established a network at the Universities of Accra and Winneba in Ghana, which we will continue to use. The work on the Mabia languages will build upon the language set that we are investigating in the ongoing project DFG HA 2343/1-1c. In addition, the P.I.s are establishing professional relationships with native speakers of Mabia languages who reside in European countries and who have agreed to cooperate in this project. Concerning the Bantu languages, we have initiated contacts to colleagues who will help us to set up a suitable environment for our research. With respect to Kenya, these are Prof. Jenneke van der Wal from the University of Leiden, as well as Prof. Maria Kouneli from the University of Leipzig. With respect to South Africa, this is Prof. Jochen Zeller from the University of KwaZulu-Natal in Durban, see our cooperation agreements.

Naturally, these networks must not only be based on the elicitation of data but also on the exchange of linguistic ideas and analyses. To enable African linguists working on the languages in question to reciprocate the visit, we plan two different events as part of the project. First, we plan to invite one or possibly two researchers on the project languages to Frankfurt in year four of the project for a duration of two weeks, which will not only allow us to share our findings, but possibly also discuss remaining open issues as well as potential avenues for the continuation of the project in second phase of the SFB. As a second event, and ideally during the stay of the guest researchers, we plan on hosting a workshop to discuss our findings. In addition to making our findings more widely known to the scientific community, this workshop will again provide valuable input not just on data already collected as part of the project, but also in relation to additional research topics. Both planned events will further strengthen our networks with speakers of and researchers on the languages of interest to the project. Both events will be financed by the central project (Z) and are therefore not included in the discussion of funding below.

3.5   ROLE WITHIN THE COLLABORATIVE RESEARCH CENTRE

The project is located in Area B of the CRC, which investigates negation in relation to other operators. The goal of the project is to contribute a theoretically oriented typological view of this relationship by adding to the discussion various representative languages of the large group of Niger-Congo languages. Taken by the number of speakers, this is the third largest language family in the world, and taken by the number of languages it is by far the largest worldwide. The CRC will most definitely profit from this project, which is one of the very few dedicatedly typological projects in the CRC. Based on the wealth of morpho-syntactic markings in the languages we investigate, we will be able to formulate

strong hypotheses on negation and its interactions with other operators, which can then inform the study of comparable phenomena in better-studied languages. This will serve to support general hypotheses of the CRC on negation from a non-Indo-European view, leading to even more cross-linguistic validity.

Our project will also profit from the projects and institutions of the CRC. The service projects will support us in providing us with the technical details and support for the sustainable storage of our data, which is extremely important to us given the amount of data that we will elicit. In addition, we will forge close relationships to the projects of Areas A and B of the CRC. More concretely, there are two main possibilities for interactions with other projects. First, there are of course possible connections in terms of theoretical topics covered and methods used. As we mentioned above, the variation in the encoding of negation in the Bantu languages, especially the use of more than one negation marker, has been linked to the languages being at different stages of Jespersen's cycle. Since the Mabia languages can show more than one element per clause that expresses negation, such an assumption seems to be possible there as well. Based on these considerations, we expect a very fruitful interaction with the project A03 (Poletto/Weiß) that directly investigates Jespersen's cycle. We plan to cooperate with project B01 (Bader/Bargmann/Webelhuth), which also investigates interactions of negation with other operators, especially the German indefinite determiner *ein*. In addition, we want to cooperate with project A04 (Sailer/Zeijlstra), which investigates Neg-raising. Although Neg-raising will play a more central role only in the second phase of the CRC, we will interact with project A04 and support the project with the elicitation of initial data. Concerning cooperations with respect to the methods used in the project, project B04 (Hartmann/Zeijlstra) will investigate questions of negative scope in coordination, also from a cross-linguistic perspective, and taking African languages into account. Here, especially the development of elicitation methods will provide possible grounds for cooperation. A further possibility of cooperation is much more general and in principle concerns all other theoretical projects. Due to the typological nature of the project and the expected networks to be established with the speakers of the different languages, it will be possible, especially at later points in the CRC, to test hypotheses developed by other projects in the languages under investigation here, and by that help to significantly broaden the empirical basis of these claims.

3.6 DIFFERENTIATION FROM OTHER FUNDED PROJECTS

As already mentioned, Katharina Hartmann is the P.I. of the DFG funded project "The interaction of focus, aspect, and verbal morphology at the VP-periphery in the Mabia languages of Ghana" (DFG HA 2343/1-1c), see https://mabia-vp.com/tiki-index.php. This project, which will run until September 30th, 2024, is the first project in theoretical linguistics that investigates the complex interaction of focus and verbal morphology in this group of languages. The project does not investigate negation and it therefore does not compete with the actual plannings. On the contrary, the ongoing project represents an ideal preparation for the present proposal, not only with respect to the Mabia languages, but also concerning potential hypotheses from the broader Niger-Congo perspective.

3.7 RELEVANCE OF SEX, GENDER AND/OR DIVERSITY

No register-variation depending on sex and/or gender has been reported for the languages to be investigated in the project.

3.8 PROJECT FUNDING

3.8.1 Previous funding

This project is currently not funded and no funding proposal has been submitted.