# DISSERTATION / DOCTORAL THESIS 

# Titel der Dissertation/Title of the Doctoral Thesis <br> "The pragmatics of sentence final and second position particles in Wolof" 

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## Abstract (English)

This thesis is a study of a subset of Wolof particles that are traditionally known as 'emphatic particles' and are characterized by their syntactic distribution: they can either occur at the right edge of the first constituent, i.e., the second position, or the right edge of clause of the clause itself, i.e., the sentence-final position. The particles discussed in this thesis are de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak. Chapters 4-8 discuss the contribution of the particles in sentence-final position and are grouped per linguistic phenomenon. The linguistic phenomena discussed in those chapters are: marking conclusions, verum, surprise, intensification and concession.

In Chapter 3 I show that the particle daal, which occurs in conclusions and summaries in a discourse, is used to signal that a speaker wants to give their final answer to the overarching question under discussion.

In Chapter 4 I discuss all the particles that can occur in verum contexts, namely kay, $k a t, ~ g a a, k a n ̃, d e$ and moos. Wolof does not have any particles that solely mark verum; all of the particles found in verum contexts have other functions as well. I show that the Wolof verum particles have properties of both verum markers and response particles: they occur in verum contexts, but their distribution depends on (dis)agreement. I analyze kat, kay and gaa as triggering a presupposition about the particle's anchor sentence. Kat presupposes that the anchor proposition is the negation of the antecedent proposition, and is thus only felicitous in disagreement contexts. Kay and gaa are both agreement particles; they presuppose that the anchor proposition is the same as the antecedent proposition. I furthermore show that kañ is a variant of kay and that moos suggests that the conveyed information is already known to the discourse participants. In Chapter 5 I discuss the implications of the findings of Chapter 4 for the theoretical aspects of verum.

In Chapter 6 I show that the particles de and kat, unlike typical verum markers, can also occur discourse-initially in surprise contexts. I argue that for kat this is due to its disagreement response particle properties. I argue that therefore verum is not part of the core meaning of the particles, but rather realized by a covert operator that needs to have an exponent. The particles kay, kat, gaa, kañ, de and moos can function as
the exponent of verum. For de, its compatibility in both verum and surprise contexts stems from its core meaning as an intensifier, which is shown in Chapter 7. De is an intensifier that can operate on either a lexical or a pragmatic level. On a lexical level it modifies gradable verbs and on a pragmatic level a speaker's attitude towards adding a proposition to the Common Ground. The fact that de can operate on a pragmatic levels makes it compatible in surprise, verum, subjective assertions and warnings. This chapter also shows that $b a$ does not have these additional functions, as it is only lexical, and not a pragmatic intensifier.

In Chapter 8 the agreement verum particle $g a a$ is revisited and it is shown that it can also mark the first clause of a concession. Another particle that functions as a concessive marker is naam, which is grammaticalized from an agreement particle: Arabic nagam 'yes'. For some speakers gaa is also grammaticalized into a concessive particle, like naam, for other speakers, however, it retains its original meaning of agreement marker and its usage in concessions is a conversational implicature. I analyze the pragmatic contribution of concessive particles as signalling that i) the super-question is a polar question and ii) the second sub-question is answered negatively.

Chapters 9 and 10 then show the contribution of the particles discussed in Chapters $4^{-8}$ in the position following the first constituent. I argue that in the particles can be grouped in two groups: those that signal that the first constituent is a contrastive topic, and those that have the same function in either second or sentence final position. The first group is discussed in 10 and concerns the particles de, nak and moom. The second group, consisting of the particles daal, gaa, kay and kat, is discussed in Chapter 10. The particles naam and ba cannot occur in second position at all.

I have found that the particles de and naam do not have one general meaning, rather, they are polysemous. I consider de and naam to be polysemous particles. De has the meanings i) intensifier which can operate on a pragmatic or lexical scale and ii) contrast maker. Naam has the meanings i) concessive marker and ii) response particle to when one's name is called.

By investigating these particles in detail, this thesis contributes to the cross-linguistic knowledge of the concepts that these particles relate to: verum (focus), surprise, lexical and pragmatic intensification, concession, concluding or summarizing discourse markers, and contrastive and non-contrastive topics. One of the main findings, that forms the connection between Chapters $4-8$, is that the difference in the marking of agreement and disagreement verum in Wolof stems from the fact that verum is marked by response particle-like elements. Therefore, the disagreement verum markers $d e$ and kat, but not the agreement verum markers, are also felicitous in surprise contexts. The
agreement verum markers kay and gaa, on the other hand, are also used in the first clause of concessions, whereas kat and de are not.

## Abstract (Deutsch)

Diese Dissertation beschäftigt sich mit den Partikeln kay, de, kat, gaa, ba, naam, de, daal, moos und moom im Wolof, die traditionell als „emphatische Partikeln" bekannt sind und die sowohl satzfinal als auch nach einem Topik, also in der zweiten Position, erscheinen können.

In Kapitel 3 zeige ich, dass die Partikel daal Zusammenfassung in einem Diskurs markiert. In die Kapiteln 4-8 zeige ich, dass die Partikeln kay, kañ, kat, gaa, moos und de für die Markierung von Verum(fokus), Überraschung, pragmatischer und lexikalischer Intensivierung und Konzessivität verwendet werden können. Kapitel 4 behandelt die Markierung von Verum im Wolof und zeigt, dass Wolof - im Gegensatz zu anderen Sprachen, die für Verum(fokus) Partikeln verwenden, wie Bura oder Gitksan - keine Partikeln hat, die ausschließlich Verum(fokus) markieren. Die Partikeln kay, kañ, kat, gaa, moos und de können zwar Verum markieren, aber es ist nicht ihre Kernbedeutung. Kay und gaa sind nämlich Partikeln, die Einigkeit markieren, während kat Uneinigkeit markiert. Kañ ist eine Variante von kay. Die Partikel moos zeigt an, dass die Information in einer Äußerung schon beiden Diskurspartizipanten bekannt ist. Kapitel 5 bespricht die Konsequenzen der Wolofdaten für Verumtheorien und zeigt crosslinguistische Mikrovariation in Verumkontexten.

Kapitel 6 zeigt, dass die Partikeln de und kat, im Gegensatz zu 'echten' Verumpartikeln, auch in Überraschungskontexten vorkommen können. Für kat argumentiere ich, dass das an ihrer Kernbedeutung als Uneinigkeitspartikel liegt.

In Kapitel 7 zeige ich, dass sich die Kompatibilität von de in Verum- und Überraschungskontexten aus ihrer Funktion als pragmatische Verstärkungspartikel ergibt. Die Partikel de wird sowohl für pragmatische als auch lexikalische Intensivierung verwendet. Das unterscheidet $d e$ auch von der Partikel $b a$, die nur lexikalische und keine pragmatische Intensivierung ausdrücken kann.

In Kapitel 8 geht es um die Verwendung von gaa und naam in Konzessionen. Während gaa auch synchron eine Einigkeitspartikel ist, wird naam synchron nur in Konzessionen verwendet, obwohl sie aus einer Einigkeitspartikel grammatikalisiert wurde: nagam im Arabischen. Ich schlage vor, dass Konzessivpartikeln den Diskurs strukturieren und
signalisieren, dass i) die Super-Frage eine polare Frage ist und ii) die zweite Sub-Frage negativ beantwortet wird.

In Kapitel 9 und 10 handeln von der Verwendung von de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak in der zweiten Position. Ich argumentiere die Partikeln anhand ihrer Funktion in der zweiten Position die Partikeln in zwei Gruppen aufzuteilen sind. Gruppe I besteht aus den Partikeln moom, nak und de, die die Kontrastivität eines Topiks anzeigen, während die Gruppe II Partikeln, daal, kay, kat, gaa, daal und moos, sowohl satzfinal als auch nach in der zweiten Position genau die gleiche Funktion haben. Die Partikeln naam und ba können überhaupt nur satzfinal erscheinen.

Außerdem schlage ich vor, dass die Partikeln de und naam polysem sind. Satzfinales de ist ein intensivierender Modifikator, und de in der zweiten Position ist eine kontrastive Partikel. Naam hat die Bedeutungen i) Konzessivpartikel und ii) Partikel, die als Antwort, wenn man gerufen wird, verwendet wird.

Durch die Forschung dieser Partikel trägt diese Arbeit zur crosslinguistischen Kenntnis der Konzepte bei, auf die sich diese Partikel beziehen, nämlich Verum (Fokus), Überraschung, lexikalische und pragmatische Intensivierung, Konzession, Markierung von Zusammenfassung im Diskurs und kontrastive Topiks.

Ein zentrales Argument der Dissertation ist, dass die Markierung von Verumfokus im Wolof, anders als im Englischen oder Deutschen, in Einigkeit und Uneinigkeit aufgeteilt ist, wobei die Partikel kat und de Uneinigkeit markieren und kay and gaa Einigkeit. Nur die Einigkeitspartikeln kay und gaa markieren auch Konzession und nur die Uneinigkeitspartikeln kat und de markieren auch Überraschung.

## Résumé

Cette thèse explore les particules de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak en wolof, qui, dans les descriptions de la langue, sont traditionellement classifées comme des "particules emphatiques". Elles se caractérisent par leur distribution syntaxique: elles peuvent se trouver soit en finale de la phrase, soit en le deuxième position de la phrase. Les chapitres $4-8$ discutent la contribution des particules en position phrase-finale.

Dans le chapitre 3, je montre que la particule daal est utilisée pour signaler qu'un locuteur veut donner sa réponse finale à la super-question en discussion, ce qui explique l'utilisation de daal dans des conclusions. Le chapitre 4 discute toutes les particules qui peuvent se trouver dans des contextes de verum (focus), à savoir kay, kat, gaa, kañ, de and moos. Le wolof n'a pas pourtant de particules qui marquent uniquement le verum; toutes les particules qui se trouvent dans des contexts de verum, ont également d'autres fonctions. Je montre que les particules de verum en wolof ont aussi des propriétés des particules résponsives; leur distribution dépend de l'accord ou bien le désaccord entre les locuteurs. Je propose que la particule kat présuppose que la proposition éxprimée par la phrase où kat se trouve est la négation de la proposition précédente, ce qui veut dire que l'on peut utiliser kat dans des contextes de désaccord. Kay et gaa sont toutes deux des particules d'accord, qui presupposent que la proposition d'ancrage est la même que la proposition antécédente. Je montre en outre que kañ est une variante de kay et que moos suggère que l'information transmise à travers de la phrase es déjà connue par les participants du discours. Dans le chapitre 5 , je discute des implications des résultats du chapitre 4 par rapport aux aspects théoriques de verum et verum focus.

Dans le chapitre 6, je montre que les particules de et kat, à la différence des marqueurs verum typiques, peuvent également se trouver dans des contexts discours initial, à condition qu'il y ait de la surprise dans le contexte. Je soutiens que pour kat, cela est dû à ses propriétés de particule de désaccord. Pour de, sa compatibilité avec les contextes de verum et de surprise vient de sa signification d'intensifieur, qui apport des modifications tant au niveau lexical que pragmatique. Cela est montré dans le chapitre 7. Ce chapitre montre également que $b a$ n'a pas les mêmes fonctions supplémentaires
que $d e$, car il s'agit d'un intensifieur lexical qui ne peut pas fonctionner au niveau pragmatique.

Dans le chapitre 8 la particule d'accord gaa est revisitée et il est montré qu'elle peut également marquer la première proposition d'une construction concessive. Une autre particule qui fonctionne comme marqueur concessif est naam, qui a été grammaticalisée à partir d'une particule d'accord: le mot nagam 'oui' en arabe. Pour certains locuteurs, gaa a été également grammaticalisée en une particule concessive, comme naam, pour d'autres locuteurs, cependant, elle conserve sa signification originale de particule d'accord et son utilisation dans les concessions est une implicature conversationnelle. Je soutiens que la contribution pragmatique des particules concessives est celle de signaler que i) la super-question est une question polaire et ii) la deuxième sous-question reçoit une réponse négative.

Ensuite, les chapitres 9 et 10 montrent la contribution des particules discutées dans les chapitres $4-8$ à la deuxième position de la phrase. Je soutiens que les particules peuvent être divisées en deux groupes: celles qui signalent que l'élément à leur gauche est un topique contrastif, et celles qui ont toujours la même fonction, indépendamment de se trouver en la deuxième position ou en fin de phrase. Le premier groupe est discuté au chapitre 9 et est composé des particules de, nak et moom. Le deuxième groupe, composé des particules daal, gaa, kay et kat, est discuté dans le chapitre 10. Les particules naam et $b a$ ne peuvent jamais se trouver en le deuxième position.

J'ai trouvé que certaines particules n'ont pas une seule signification générale, mais devraient plutôt être considérées comme polysémiques. Je soutiens que de et naam sont des particules polysémiques. De a les fonctions suivantes: i) intensifieur qui peut modifier au niveau pragmatique ou bien lexical et ii) marquer le contraste. Naam a les significations de i) marqueur concessif et ii) particule pour répondre quand on est appelé.

En étudiant ces particules en détail, cette thèse contribue à la connaissance interlinguistique des concepts de verum (et verum focus), surprise, intensification lexicale et pragmatique, particules concessives et conclusives et topique constratifs. L'une des principales conclusions, qui forme le lien entre les chapitres $4-8$, est que la différence de marquage entre le verum d'accord et le verum de désaccord en wolof a des conséquences naturelles pour les autres contextes dans lesquels les particules peuvent se trouver. Les particules qui peuvent se retrouver dans des contexts de désaccord, peuvent aussi se trouver dans des contextes de surprise. Les particules qui peuvent se trouver dans les contexts d'accord, peuvent aussi se trouver dans des contextes concessesifs.

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## 1 Introduction

### 1.1 Introduction

This thesis constitutes the first description and formal analysis of what are known as 'emphatic particles' in Wolof, an Atlantic language of the Niger-Congo family. Wolof is spoken by about 4 million first language speakers (Eberhard, Simons, and Fennig 2020) and 10 million speakers all together (Robert 2017). It is predominantly spoken in Senegal and the Gambia, where it has the status of national language, but there are also speakers in Mauritania, Mali, Guinea-Bissau, the USA and France (Torrence 2013a). Wolof is the lingua franca in large parts of Senegal, especially its capital, Dakar. It has also adopted as an Li by some speakers of other ethnic groups. However, for a language of its size and importance, it is largely understudied, especially from a formal semantic and pragmatic perspective. The 11 particles that this thesis examines, namely de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak, have so far not been given a detailed analysis. Nonetheless, many of them are frequently used in everyday speech and thus constitute a quintessential part of the Wolof language. For anyone who wants to learn Wolof, it is imperative to know the proper conditions for using these particles.

The reason I have chosen to treat these 11 particles as one group in my research is based on their syntactic distribution: the two possible positions within a clause for these particles are either following the first constituent ('second position) or the right-edge of a clause ('sentence final'). Existing information about the particles is scattered across various sources, mostly grammars and dictionaries (J. L. Diouf 2001, 2003; Faal 2017; Faye 2012; Munro and Gaye 1997). The only analysis of a sub-part of these particles in theoretical linguistics is found in Torrence (2013a), who accounts for the syntactic distribution of nag, kat, de, kaay, kañ, naam and gaa, but doesn't go into their meaning. He describes them as 'emphatic' or 'topic particles' and claims that they occur either at the right edge of a topic or the right edge of a clause. The particle $b a$ in sentence-final positions occurs in Robert (1989) and Robert (2010a), hence I have added it to the particles under consideration. The particles daal and moom occur in J. L. Diouf (2001, p. 204), who describes them as marking contrast. Moos is shown in
second position particle in Munro and Gaye (1997, p. 116) and in sentence-final position in J. L. Diouf (2003, p. 160). Taking these sources together, I have ended up with the 11 particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak. The particles sax 'even', rekk 'only' and tamit, it, itam 'also, too', although they also occur in these two positions, are left for a future occasion. Since these three particles correspond to what are known as 'focus sensitive particles' in English, they can be considered a group on their own (see Appendix A).

This thesis investigates the 11 particles on different levels: first and foremost, their semantics and pragmatics. However, considering that this is the first time they are being described in detail, I also consider their phonological, syntactic and sociolinguistic properties. Upon closer inspection of their syntactic distribution, the so-called 'second position' can be either following a connector, following an adverb, following a topic or following a focus. The sentence-final position can either be clause-final or utterancefinal. Furthermore, it turns out that some particles, namely naam, gaa and daal can also occur in a clause-initial position, and gaa and daal even post-verbally. It also turns out that naam and ba cannot occur in the second position. Thus, the group is not as syntactically homogeneous as initially thought.

By investigating these particles in detail, this thesis contributes to the cross-linguistic knowledge of the concepts that these particles relate to. These are: verum (focus), surprise, lexical and pragmatic intensification, concession, concluding or summarizing discourse markers, and contrastive topics. One of the main findings of this thesis in relation to linguistic theory is that some languages, including Wolof, make finergrained distinctions in the marking of verum. This difference stems from the fact that Wolof does not have bona fide verum particles, but that verum can be marked using response-like agreement or disagreement particles. The disagreement verum, but not the agreement verum markers, are also felicitous in surprise contexts. The agreement verum, but not the disagreement verum markers are felicitous in a concessive context. In English, which marks all verum with the same focal accent, the difference between agreement and disagreement verum gets conflated.

### 1.2 Methodology

Unless otherwise specified, the data presented in this paper were gathered during fieldwork in Senegal and consultation with two native speakers in Vienna, one from Dakar and one from Banjul, Gambia. The fieldwork data consists of my own fieldwork, and fieldwork done by Uli Reich in Dakar in 2006, who shared his annotated data with
me (see Reich (2020) for other examples from that data set). My fieldwork in Senegal was conducted over a period of 9 weeks in September-November 2018. The fieldwork sites were Dakar, Thiès, Mbour, St. Louis, Sanar Wolof and Ndem. The Wolof names for Dakar, Thiès and St. Louis are Ndakaaru, Cees and Ndar respectively. I refer to St. Louis by its Wolof name Ndar throughout this thesis. These regions fall under different dialect regions (Ngom 2003). Although research on Wolof dialects is still ongoing and the classifications are not unanimously agreed upon, I use the classifications of Kâ and Saar (1987), as cited in Ngom (2003, p. 2) to give an idea of the dialects. Ndar and Sanar Wolof are located in the Waalo region and are considered part of the Northern dialects. Thiès and Mbour are in the Kajoor region and Ndem in the Diourbel region, which are both considered Central dialects in Kâ and Saar (1987). Saalum (including Gambian) are southern dialects. The Wolof spoken in Dakar, and other major cities, such as Ndar and Thiès, is often referred to as urban Wolof or Dakar Wolof. Figure 1.1 is a map showing the fieldwork sites. Keur Massar, as suburb of Dakar, is listed as a separate location on the map, but I have labeled the data gathered from there as 'Dakar'.

The methodology used for this research follows the principles of semantic fieldwork as laid out by Matthewson (2004). Data gathering in semantic fieldwork is based on a combination of positive evidence from natural occurring data and negative evidence from elicited data. Data analysis is done qualitatively. The natural data I have used consist of recordings of dialogues and texts. The dialogues were mostly prompted, i.e., staged communicative events (Himmelmann 1998, p. 185), but some of them were also spontaneous, i.e., observed communicative events (Himmelmann 1998, p. 186). The staged communicative events were prompted by discussion topics, dilemma tales, the description of ambiguous pictures, and a map task. Discussion topics included 'What do you think of the upcoming (2019) elections?', 'What is your opinion on polygamy?', 'What is life in the village like now compared to when you were young?' and 'What do you think of the role of men and women in Senegalese society?'. Dilemma tales are short stories which are common in African storytelling. They contain a moral dilemma and an open ending that invites speakers to debate the moral dilemma. I used stories from Bascom (2011) and from Senft (2003). The ambiguous pictures and map task have been given to me by Uli Reich.

The recorded conversations were transcribed with the help of native speakers in the software ELAN (Sloetjes and Wittenburg 2008). My corpus contains 100 minutes of (prompted) conversations. The additional corpus I used, collected by Uli Reich in 2006, contains 47 minutes of prompted conversations. Thus, in total, I had 147 minutes of spoken Wolof available. Some utterances were also analyzed for intonation using Praat


Figure 1.1: fieldwork sites, Map data ©2020 Google
(Boersma and Weenink 2018), although the recordings were made with a smartphone and were not intended for detailed phonetic analysis.

The elicitation was done using both visual and verbal stimuli. The meta-language used in elicitation was mostly French. Picture stimuli include the storyboards Animal Party (Littell 2010) and Bake-Off (TFS Working Group 2011) that can be found on totemfieldstoryboards.org. Some of the stimuli used for elicitation that I have made myself can be found in Appendix B and C. Verbal elicitation methods consisted of direct translation in a context, open questions in a context, and felicity judgments. Direct translations consist of a context, after which a target sentence is given in the meta-language and the speaker is asked how they would say this in the target language. In open questions in a context, the target sentence is left out and the speaker is rather asked 'What would you say in this context?'. In felicity judgments the speaker is asked how natural a sentence sounds in a context. No scale was used for the judgments, speakers were asked whether they were be able to say the target sentence in the given context, and if not, they were sometimes asked in what kind of context it would sound natural. For felicity judgments I sometimes took sentences that were naturally produced by speakers in the recordings and changed the particle that was used. Data that were elicited are marked as 'elicited' in the examples. Data that were spontaneously offered by speakers to illustrate something are marked as 'volunteered'. I use the labels 'elicited' and 'volunteered' differently from Matthewson (2020): Matthewson (2020) uses the label 'volunteered' for data points in which the elicitation doesn't involve felicity judgement or translation. I only use this label when a speaker comes up with the data point spontaneously, i.e., when I don't ask them 'What would you say in this context?'. Natural data are marked with the location where they were recorded. Sometimes speakers gave comments about particular data points which provided valuable clues, these comments are included in the examples when applicable. All sessions were recorded on a smartphone with consent from the speakers, who were compensated for their participation. In total I worked with approximately 60 Wolof speakers.

As for the text sources, these include internet searches, written down folktales, a Bible translation (Les Assemblées Evangéliques du Sénégal and La Mission Baptiste du Sénégal 1987) and two novels. For internet examples, I relied mostly on Wikipedia articles in Wolof, found under: https://wo.wikipedia.org. Alice Chaudemanche has given me access to two scanned and searchable Boris Bubakar Jóóp novels: Doomi Golo from 2003 (lit: 'Children of the Monkey', translated in English as 'The Hidden Notebooks' in 2016) and Bàmmeelu Kocc Barma from 2017 (lit: ‘The Tomb of Kocc Barma'). Doomi Golo is a collection of notebooks through which the protagonist Nguirane Faye addresses to
his grandson Badu Taal, who lives abroad, and tells him many stories. Bàmmeelu Kocc Barma is a fictionalized account of the sinking of the ferry Le Joola, that was set from Ziguinchor to Dakar, in 2002. Thousands of passengers died in the accident, among which the best friend of the protagonist. A full analysis of the way particles are used in these novels is outside of the scope of this thesis. I have used several examples from Doomi Golo, and only included Bàmmeelu Kocc Barma in the frequency count of the particles in Chapter 11. Furthermore, I used a collection of folk stories by Kesteloot and Mbodj (1983) and two further folk stories, Coxor ak Mbëgge 'The Mean One and the Greedy One' and Jëkkër ju amul ub léget 'A husband without a scar' written down by Njaay and B. Ka (2006) and Wàdd (2016) respectively. Coxor ak Mbëgge is about two friends, one of which extremely mean and the other extremely greedy, who encounter a djinn, Kékk, who offers them a wish. The caveat is that whatever one person wishes for, the other will get double. Since neither of them want the other to have more than themself, the Greedy One eventually wishes to be blind in one eye, so that the Mean One will be completely blind. Jëkkër ju amul ub léget is about a young woman, Coumba, who wants to marry a man who doesn't have any scars, even though no such man exists. A djinn overhears her and disguises himself as a scarless man. They get married, although the djinn eventually reveals himself to Coumba and tries to eat her. Coumba successfully escapes with the help of her horse, who advises her to spit all over the house. When the djinn comes to search for Coumba, he hears her voice coming from every place she has spat on and this confusion buys her time to escape on her horse.

### 1.3 Background

### 1.3.1 Interjections, discourse particles and discourse markers

The category 'particles' is broad and often conflated with interjections and discourse markers. First of all, the Wolof particles discussed in this should be seen as separate from interjections. Particles are syntactically integrated in a sentence, whereas interjections are syntactically independent (Ameka 1992).

Second, are the particles under discussion discourse particles? The terms 'discourse markers', 'discourse connectives' and 'discourse particles' have been used for linguistic items that pertain to a wide range of domains, including epistemic, expressive, social and textual ones (Ameka 1992; Fraser 1999; Wierzbicka 1992). According to Schiffrin (1987) discourse markers are often found at the periphery of a clause. Zimmermann (2011) differentiates between discourse particles in the broad and narrow sense. Dis-
course particles in the broad sense refer to all kinds of linguistic expressions that are used in making discourse coherent. For example, by indicating topic change, concluding a discourse and accepting or rejecting a previous utterance. Discourse particles in the narrow sense, on the other hand, express the speaker's epistemic attitude towards the propositional content of an utterance. The Wolof particles under discussion include both discourse particles in the narrow and in the broad sense.

Most work on discourse particles has been done for German, see Zimmermann (2011) for an overview. When it comes to African languages, work on discourse markers, interjections and particles has been done in Ewe (Ameka 1991, 1992), Mandara (A. W. Pohlig and J. N. Pohlig 1994), Hausa (Schmaling 2001) and Bambara (Prokhorov 2014). Drabo (2018a) and Diao-Klaeger (2018) have studied Mande particles in the French spoken in Côte d'Ivoire and Burkina Faso respectively.

I consider the Wolof second position and sentence-final particles to be a sub-set of discourse particles, as the language has more particles than just de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak. In the next section I zoom into this specific sub-type of discourse particles, namely those that occur either sentence-finally or in second position, in other languages.

### 1.3.2 Sentence-final and topic particles

Grammars in which the Wolof second-position and sentence-final particles are mentioned include Faal (2017), J. L. Diouf (2001) and Faye (2012). Most research on these particles has been done with respect to their syntax by Torrence (2013a). He has proposed that the particles reside in the head of an emphatic phrase, EmphaticP. When the sentence following the particles stays in-situ, the particles appear after the first constituent. When they appear sentence-finally, however, the sentence has moved to SpecEmphaticP, as shown with the tree in (1).


Torrence (2013a) bases this proposal on the one for Gungbe by Aboh (2003). Gungbe is another language with at least one such particle (Aboh 2003, 2010). It has a topic particle yà which can appear either after topics or at the end of polar questions. The topic use is illustrated in (2).
(2) X'〕 ló yà Kòfí bíś é mè room det tor Kofi enter 3SG in 'As for the room, Kofi entered it.'

When yà occurs at he right edge of polar questions, the question gets a feeling of 'expectedness' according to Aboh (2010), as shown in (3).
(3) Mì yì xò lésì Gúkómè tòn yä?

2PL go buy rice Gukome poss top-Q
'Did you buy rice from Gukome (as expected)?' Gungbe, (Aboh 2010, p. 115)
Aboh (2010, p. 115) refers to (3) as a 'proposition topic', i.e., the whole question is a topic. (3) is felicitous in a context in which a mother has asked her children to buy the rice from Gukome and expects them to have done so when she asks the question. Unexpectedness, on the other hand, can be marked by a sentence-final focus particle. Note also that yà is not a question particle in (3), as the question is marked by the additional low tone at the end of the sentence. The sentence-final topic particle functions as marking everything to its left as expected or given. The scope of the particle is dependent on its position in the clause: in (2) it only takes scope over the DP 'the room'. According to (Aboh and Essegbey 2010), Gungbe also has particles which can only scope over the whole clause and thus only appear on the right edge.

The same pattern is found in the related language Ewe, in which the topic particle lá can occur on the right edge of the antecedent of a conditional (Ameka 1991). According to Ameka (1991) the particle-marked clause forms the background to which the following clause should be interpreted. Aboh (2010) adds that this gives a flavour of 'as you know' (Aboh 2010, p. 123), as in (4).
(4) a. Émegbé lá, mía-фo nu le e-nú-a. afterwards tor 1PL-strike mouth Loc 3SG-side-Q 'Afterwards, shall we talk about it?'

Ewe, (Ameka 2010)
b. Né Kòfí mé-xlẽ àgbàlè ò lá.
if K. neg-read book neg top
'If Kofi does not read the book (as you know)...' Ewe, (Aboh 2010, p. 123)

In Hausa, the particle dai is used to reintroduce topics, but it can also occur after imperatives (Schmaling 2001).

These types of particles are not limited to African languages. Russian has the particle že, which (McCoy 2003) has claimed can come either in second or sentence-final position. This is illustrated in (5).
(5) A: ‘Kill the fly!'

B: Ona (že) uže ubita (že).
3SG.NOM.F ŽE already killed.PTCP ŽE
'(But) it IS already killed.'
Russian, (McCoy 2003, p. 16)
This is elaborated up in Chapter 10.
Consultants I have worked with said that the use of sentence-final particles is considered informal and colloquial. Similar claims have been made for particles in Mandarin (Sinitic, Sino-Tibetan) by C. N. Li and Thompson (1989, p. 238). However, note that although I use the term sentence-final particles, which has its origin in studies in Sino-Tibetan languages, the Wolof particles discussed in this thesis do not share all the properties with typical sentence-final particles in languages like Mandarin or Cantonese. For example, they are not as frequent as the particles in those languages. Thus, I only use the term in a descriptive manner and do not claim any further similarities between Sino-Tibetan SFPs and Wolof SFPs.

### 1.3.3 About the theoretical background

The particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak mostly have non-truth conditional meaning. Removing or adding these particles to a sentence does not affect its truth-conditional content. The truth conditions of a sentence are the conditions under which that sentence is true. For example, for (6), the sentence is true if and only if there is a goat that ate my pizza. If my pizza was instead eaten by a seagull, then (6) is false.
(6) A goat ate my pizza.

The sentence in (7) is true under the exact same conditions as (6), thus they are said to be truth-conditionally equivalent. Yet (7) contains an additional word: wow.
(7) Wow, a goat ate my pizza!
(6) and (7) both have the same truth conditions, but are not appropriate in the same contexts.

Potts (2007) proposed a multidimensional approach to meaning: besides the truth conditional dimension, there is an expressive dimension and these two dimensions are separate from each other. Particles and interjections, such as wow in (7) often fall in the expressive dimension. Gutzmann (2013) calls the non-truth conditional dimension the use-conditional dimension and says the following in relation to non-truth conditional meaning and particles:

In general, many of the different kinds of particles found around the world's languages do not have any influence on the truth conditions of a sentence but, rather, impose appropriateness conditions on their use. (Gutzmann 2013, p. 11)

I analyze most of the particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak with a Questions under Discussion approach. According to von Stutterheim and Klein (1989) discourse can be captured using explicit and implicit questions. They call implicit question quaestio. Carlson (1983) proposed that questions are often implicit inferred on the basis of other cues. Questions under Discussion as a framework was first proposed by Roberts (1996) as a way to model discourse relating to information structure and information packaging. Information structure is the structuring of information into focus and background, new and given or topic and comment. While the realization of information structure, i.e., information packaging, differs crosslinguistically, information structure is an universal concept (Roberts 1996; Vallduví 1993).

Another notion related to discourse is the Common Ground. The Common Ground (CG) consists is the set of propositions that are agreed upon by all discourse participants, i.e., the shared information (Stalnaker 1978). During the discourse, the CG gets updated with new information. Following Stalnaker (1978), Roberts (1996) assumes that ultimately all questions in the discourse can be boiled down to The Big Question: 'What is the way things are?'. However, since this question is too big to be answered at once, discourse participants make use of strategies of sub-questions. This ordering of questions can be visualized using d-trees: tree structures based on QUDs (Roberts 1996), with moves Büring (2003). The skeleton of a d-tree is shown in (8). Each node in a d-tree is called a move. Thus in (8), the question, sub-questions and answers are all moves.
(8)


Information in an utterance that does not address the QUD is considered not at issue (Potts 2003). Since particles are generally use-conditional, they do not contribute to the at issue meaning.

I will introduce additional details of this framework in subsequent chapters where needed.

### 1.4 How to read this thesis

This thesis is mostly data-driven and should be seen as a first step into the research on discourse markers and particles in Wolof, and more generally also West African languages. Since I am not a native speaker of Wolof, I refrain from making analyses that are as fine-grained as what the German discourse particles have gotten over the years, see Zimmermann (2011) for an overview. In analyzing the data, I compare my findings for Wolof to languages that have enjoyed more attention. Thus, this thesis not only fills a longstanding gap in the description of the grammar of Wolof, but also contributes to our cross-linguistic understanding of the concepts these particles relate to. The goal of this thesis is to lay the groundwork and inspire others to pick up on the many possible directions for future research.

Most chapters can be roughly divided into a descriptive and a theoretical part. The first part is the description of the relevant data for that chapter and the generalizations that can be drawn from it. The second part consists of a formal analysis of the particle in question and the implications of the Wolof data for existing linguistic theories. No new data is presented in the after the descriptive section, relevant data points are repeated in the analysis section. Occasionally, there is a third part that reports the possible variations found in particle usage among and open issues and directions or further research.

Since the particles relate to different linguistic concepts, such as verum, concession, topicalization and intensification, the relevant background for each of those concepts is introduced per chapter. The relation between particle and linguistic phenomenon is not one on one: some particles occur in multiple contexts, and some linguistic phenomena are expressed by multiple particles. I have chosen to organize the chapters per linguistic
phenomenon, and not per particle. Chapter 11 however, contains an overview of all the particles and the meaning I assign to them. One can also jump to that chapter for a summary of the main findings and claims made in these thesis.

The thesis is roughly divided in Chapters $3-8$, which discuss the particles at the right edge of a clause and Chapters 9-10, which discuss the particle at the right edge of the first constituent. Readers who are interested in the realization of verum in Wolof and a discussion of the theoretical aspects of verum (focus) can read Chapters 4, 5 and 6 as a standalone work. Readers who are interested in topicalization can do the same with Chapters 9 and 10. Chapter 8 can be read standalone as an analysis of concessive markers in Wolof, but can also be extended to concessive markers cross-linguistically. Chapter 3 can also be seen as a standalone chapter on the particle daal. Furthermore, Chapters 4-8 can be taken as a whole. Chapter 4 introduces all the particles that can occur in a verum context, namely kay, kat, gaa, kañ, de and moos, and the subsequent chapters zoom in on other contexts those particles can occur in. Chapter 6 shows that the particles de and kat also occur in surprise contexts, Chapter 7 shows that de occurs in even more contexts than kat and Chapter 8 shows that gaa also occurs in concessive contexts. A detailed overview of the structure of this thesis is given in the next section.

### 1.5 Overview and outline

Chapter 1 introduces the topic of this thesis, presents the methodology and previous literature. Chapter 2 gives a brief overview of Wolof grammar.

Chapter 3 concerns the particle daal. I start with this particle, as it has little interaction with the kind of contexts the rest of the particles appear in. An utterance containing daal can be used to summarize the speaker's main point in a discourse and conclude, similar to one of the uses of English so. It is used when the speaker has already repeated a certain point several times, when they wish to summarize their main point in other words, or when they want to hand over their turn. Daal is also used with advice imperatives. I argue that the meaning contribution of daal can be informally summarized as 'the speaker wants to make the daal-utterance their final answer to the overarching QUD' and show QUD-trees that illustrate the use of daal.

Chapter 4 is concerned with the subset of particles that appear in verum contexts: de, gaa, kay, kañ, kat and moos. I argue that only using the term 'verum' does not suffice to capture the contribution of these particles. While in English verum, realized by do-insertion with a focal accent, can be used in contexts where the speaker agrees and disagrees with the addressee, in Wolof different particles are used depending
on (dis)agreement. The particle kat is only felicitous in disagreement verum: verum utterances with a polarity opposite from the target proposition. The particle gaa, on the other hand, is only felicitous with emphatic agreement verum: verum utterances in which an antecedent of the same polarity is reinforced. The particle kay has a distribution which seems to depend both on (dis)agreement with what as been said before, as well as the polarity of the anchor sentence; kay is felicitous in all emphatic agreement contexts, but only appears in disagreement verum contexts if the antecedent is negative and the anchor sentence is positive. If the anchor sentence is negative (and the antecedent positive), kay is not licensed. Furthermore, the particle moos is felicitous in the same contexts as kay, but has an additional flavour of 'addressee should have know this already'. De is felicitous in the same contexts as kat, i.e., disagreement verum, but is judged less bad as kat in emphatic agreement contexts. Furthermore, I have found that kañ is not a particle with a separate meaning, but simply a variant of kay. Crucially, these particles, unlike a verum accent in Germanic languages, are only felicitous in declaratives. I propose that the particles kat, gaa and kay trigger a presupposition about their anchor propositions. Kat triggers the presupposition that the anchor proposition is identical to the negation of the antecedent proposition and kay and gaa both trigger the presupposition that the anchor proposition is identical to the antecedent proposition itself. I show how Krifka's 2013 theory of response particles as anaphors can be adequately implemented to account for the distribution of these particles, including the seemingly strange behavior of kay. According to Krifka (2013) negated sentences introduces two discourse referents (DRs). I propose that kay is an agreement particle which can target either the DR introduced by embedded proposition, or the negated proposition. When the interlocutor's utterance is positive, there is only one DR that kay can pick up and agree with, hence the infelicity of kay when the speaker wants to negate a positive antecedent. I argue that the difference between kay and gaa, which are both agreement particles, is in their syntactic requirements rather than their semantics.

In Chapter 5 I go into the theoretical implications for verum theories of the Wolof data. I show how the Wolof data provides further evidence for the recent proposal by Gutzmann, Hartmann, and Matthewson $(2017,2020)$ that verum is not a type of focus, but a lexical operator. Unlike the languages discussed in Gutzmann, Hartmann, and Matthewson (2020), however, in which the verum operator is directly realized by the verum particles, in Wolof, this operator is covert, and the particles can be used to give a morphological exponent to verum.

Chapter 6 continues with the particles de and kat, of which it was shown in Chapter

4 that they occur in disagreement verum contexts. In this chapter I show that, unlike response particles or a verum accent in English, de and kat do not need a linguistic antecedent. Provided there is surprise in the context, the disagreement particles are felicitous discourse-initially. I add to the analysis of Chapter 4 that the verum-response particles can thus target implicit propositions. This ability to target implicit propositions is not something that is shared with verum markers cross-linguistically, but rather stems from the response particle semantics of the particles, as disagreement response particles, like English no can also be used in a discourse-initial surprise context. Crucially, the particle kay, being an agreement particle, cannot be used in surprise contexts, despite this context descriptively being a positive+disagreement context. The reason for this is that, since implicit propositions do not have linguistic structure, kay cannot target the embedded proposition it needs to be felicitous in a positive+disagreement context.

Chapter 7 shows even more contexts in which de occurs: lexical intensification, subjective assertions and (warning) imperatives. Of all the particles discussed in this thesis, de occurs in the greatest variety of contexts. The lexical intensification use is the only one in which any of the particles contributes truth-conditional meaning, and it shares this function with the particle $b a$. Unlike $d e$, however, $b a$ can only function as a lexical intensifier. I explore previous accounts of modifiers that have been shown to function in both lexical and pragmatic intensification. First, I show the non-degree modifier analysis, as has been proposed for Hebrew mamaš, English really (McNabb 2012a), Italian -issimo and Washo šému (Beltrama and Bochnak 2015) can not be extended to $d e$. I propose to analyse sentence-final $d e$ as a degree modifier that can target either a scale in the denotation, or an attitudinal scale. This proposal builds off the analysis for 'metalinguistic more' by Giannakidou and Stavrou (2009). In pragmatic intensification cases de boosts the degree of certainty the speaker has towards adding the proposition $p$ to the Common Ground. The cross-linguistic data to which this chapter contributes show the amount of diversity in the landscape of pragmatic intensifiers.

Chapter 8 goes back to the agreement particle gaa, which was first introduced in Chapter 4, and shows that this particle can additionally occur in concessive contexts. It shares this concessive function with the particle naam. However, it is only for a subset of speakers that gaa-utterances have a concessive meaning; for others it indicates full agreement. Naam, on the other hand, is interpreted as a concessive particle by all speakers. The origin of naam is the Arabic agreement particle nagam, and though this original meaning is no longer present in modern Wolof, naam still has a second, related sense of response to one's name being called out, cf. English yes?. Thus, like gaa, it originates from an agreement marker. I propose that the use of gaa in the antecedent
clause of concessives is a conversational implicature that for certain speakers has been conventionalized. For naam concession has already become part of its meaning. The meaning contribution of concessive particles such as naam is the disambiguation between the different uses of the adversative coordinator, as these particles only occurs with what is known as the Denial of Expectation use of coordinators like 'but' and not with the Semantic Opposition use (Lakoff 1971). Applying a QUD framework to this observation, I propose that Denial of Expectation can be captures as the super-question being a polar question and second sub-question being answered negatively.

Chapter 9 considers the second-position use of the particles de, moom and nak. These three particles all signal that the topic they attach to is a contrastive topic (CT). Contrastive topics were defined by Büring (2003) as topics that occur in answers to sub-question and imply that there are other sub-questions about different topics. Thus, in QUD-terms, answers with CTs are part of a strategy to answer a bigger question with multiple sub-questions. In Wolof, the use of particles is optional in the marking of CTs, the only thing that is morphosyntactically obligatory is for the CT to be in the left periphery. Though all three particles can occur with CTs, there are also differences between them. De often occurs in the collocation man de 'as for me' and within a list environment does not occur on more than one CT. De is ungrammatical in questions, thus it cannot mark a CT in a constituent question. I propose that the second position use of $d e$ cannot be derived from a general meaning that is shared with $d e$ in sentencefinal position. Rather, I propose that de is polysemous and that this sense of de signals the presence of a contrastive topic, similar to the English connector however. Moom is the most frequent particle and does occur on multiple CTs within a list. The particle moom is grammaticalized from the third person emphatic pronoun moom. Unlike de, moom is grammatical in constituent questions and thus can mark a CT in a question. Nak also occurs in constituent questions and in addition, unlike moom and de, occurs in fragment questions, i.e., questions of the form 'And what about you?'. Crucially, nak in declaratives is never felicitous on the first CT of a list. Furthermore, in a list environment, nak is judged best on the final CT of a list. When occurring in a list with three CTs, nak can only occur on the second CT if the final two CTs form a natural group. In its sentence-final nak is often translated as 'finally'. The subtle differences of the three particles are captures using variations of contrastive topic conditions, as defined in Büring (2003). An additional finding presented in this chapter is that, contrary to what has been reported before, in certain circumstances topics in Wolof are not resumed by a pronoun.

Chapter 10 considers the second-position use of the particles kat, kay, gaa and daal. I
treat these particles separately from the particles discussed in Chapter 9, since they can occur with non-contrastive topics, unlike de, moom and nak. The particles kat, kay, gaa and daal always operate on the entire proposition, regardless of their position. Thus, they have the same semantics both in second as in sentence-final position. This is reminiscent of the Russian particle že, which also occurs both after topics or clausefinally with no meaning difference (McCoy 2003).

In Chapter 11 all of these findings are brought together and summarized. I give a summary of my analysis for each of the particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak. Furthermore, in this chapter I compare the particles in terms of semantic contribution, syntactic distribution and sociolinguistic factors.

A concise and informal overview of the meanings I assign to the particles is presented in Table 1.1. I have found that some particles do not have one general meaning, but should rather be considered polysemous. I consider de and naam to be polysemous particles, hence I give them each two separate rows in Table 1.1.

| particle | meaning |
| :--- | :--- |
| $b a$ | intensifies gradable verbs |
| $d a a l$ | summarizes the main point of previous discourse |
| $d e_{1}$ | intensifies either gradable verbs or intensifies the speaker's <br> certainty about adding a proposition to the common ground |
| $d e_{2}$ | signals the presence of a contrastive topic |
| gaa | marks agreement or concession |
| kay | marks agreement |
| kañ | is a variant of kay |
| kat | marks disagreement |
| moom | signals the presence of a contrastive topic |
| moos | marks agreement and adds the feeling that the conveyed information <br> is already known or undisputed |
| nak | signals the presence of a contrastive topic |
| naam $m_{1}$ | marks concession |
| naam | response particle used in response to one's name being called |

Table 1.1: Wolof particles

### 1.6 Conventions and abbreviations

Whenever multiple particles occur in one sentence, I use colors to help differentiate between them. When data from a different language than Wolof are used, the language
is given next to the example. Senegalese names are written in the codified Wolof orthography in Wolof data for consistency, but are transcribed in the French-based orthography in the translations, as this is how these names are usually spelled internationally. For example, the name Kumba is written as such in the codified Wolof orthography, but as Coumba in the French-based orthography. Contrastive topics are underlined and foci are given in ALL CAPS. Glosses from secondary sources are modified for consistency. When translations are modified, this is noted in a footnote. Except for English, all data are glossed using the following glossing abbreviations, in line with the Leipzig Glossing Rules:

| 1, 2, 3 | first, second, third person | M | masculine |
| :---: | :---: | :---: | :---: |
| I, II, III | series I, II, III pronoun | MID | middle voice |
| ACC | accusative | MIR | mirative |
| A-D | Agreement-Disagreement s | N | neuter |
| ADD | additive particle | NC | noun class |
| AFOC | argument focus | NCONJ | nominal conjunction |
| AG | agentive | NDM | non-degree modifier |
| AND | andative | NEG | negation |
| ANTIP | antpassive | NOM | nominative |
| AZR | adjectivizer | O | object clitic |
| CAUS | causative | OF | operator focus |
| CG | Common Ground | OPT | optative |
| CFOC | complement focus | PFV | perfective |
| CLFOC | clausal focus | PL | plural |
| COM | commitative | PN | proper noun connective |
| COMP | complementizer | P-N | Positive-Negative system |
| COP | copula | POSS | possessive |
| CN | common noun connective | PR.EVID | prior evidence |
| CT | contrastive topic | PRIV | privative |
| DAT | dative | PROG | progressive |
| DEF | definite | PROX | proximal |
| DET | determiner | PRS | present tense |
| DEM | demonstrative | PRT | particle |
| DOE | Denial of Expectation | PST | past tense |
| DIST | distal | PTCP | participle |
| DR | discourse referent | Q | question morpheme |
| EMPH | emphatic pronoun | QUAL | qualitative copula |
| EXCLAM | exclamative particle | QUD | question under discussion |
| F | feminine | REFL | reflexive pronoun |
| FORM | formal | REL | relative |
| FR | French | REV | reverse polarity |
| FUT | future | S | subject clitic |
| GEN | genitive | SBJV | subjunctive |
| IDEO | ideophone | SCONJ | sentence conjunction |
| ID. REF | identical reference | SFOC | subject focus |
| IMPERF | imperfect | SFP | sentence-final particle |
| IMP | imperative | SG | singular |
| INDF | indefinite | So | Semantic Opposition |
| INF | infinitive | SU | subject |
| INTR | intransitive | TOP | topic marker |
| INTRJ | interjection | VEN | venitive |
| IPFV | imperfective | VERUM | verum particle |
| LINK | linker | VFOC | verb/VP focus |
| LOC | locative | VL | verbal linker |

## 2 Wolof

In this chapter I give an overview of the grammar of Wolof and highlight some aspects of it that return in the data I will present in this thesis. Resources on Wolof include the grammars Boilat (1858), Dard (1826), P. Diagne (1971), J. L. Diouf (2001), Faal (2017), Faye (2012), Kobès (1869), Ngom (2003), Njie (1982), and Rambaud (1903), the course books J. L. Diouf and Yaguello (1991), O. Ka (2009), and Seck (2014) and the dictionaries J. L. Diouf (2003) and Munro and Gaye (1997). Furthermore, there is a corpus collected by Aram Faal at the library of the Centre de linguistique Appliquée de Dakar at the University of Dakar that is yet to be digitalized.

### 2.1 The Atlantic languages

As mentioned in the introduction, Wolof is an Atlantic (Niger-Congo) language spoken by about 4-10 million speakers predominatly in Senegal and the Gambia (Eberhard, Simons, and Fennig 2020; Robert 2017). The exact classification of Atlantic language family is disputed, and the term was originally not meant as the label for a genetic family, but as a container term for non-Mande languages spoken near the Atlantic coast (Childs 2003). Atlantic languages are in some sources referred to as West-Atlantic languages, although this term is currently no longer in use. The most recent internal classification of the Atlantic languages is from Pozdniakov and Segerer (2017) and is reproduced here in Figure 2.1.


Figure 2.1: Atlantic classification from Pozdniakov and Segerer (2017, p. 4)

Though the Atlantic languages are diverse, several things they have in common are SVO word order, adpositions preceding nouns, nominal qualifiers following the noun, the presence of noun classes and consonant mutation (Childs 2003). The Atlantic languages Wolof, Fula and Sereer are furthermore some of the few African languages without tone. For more information on the Atlantic languages and their history, see Childs (2003, 2010), Merrill (2018b), and Pozdniakov and Segerer (2017).

### 2.2 Phonology and orthography

Wolof has seventeen vowels, of which nine short and eight long ones. The vowels in IPA and the corresponding standard orthography are shown in Table 2.1.

| IPA | Orthography |
| :--- | :--- |
| i | i |
| $\mathbf{u}$ | $\mathbf{u}$ |
| o | ó |
| $\partial$ | o |
| $\varepsilon$ | e |
| $\partial$ | ë |
| e | é |
| a | à |
| $\Lambda$ | a |

Table 2.1: Vowels

All vowels, except for the $a[\Lambda]$, which only has a short form, have both a long and a short form. In the standard orthography, the long form is written as two instances of the short for, e.g., [כ:] is written as oo. Table 2.2 shows the consonants in Wolof.

Tables 2.1 and 2.2 are based on what is reported in F. N. Diouf (2017), J. L. Diouf (2001), O. Ka (1989), Ndiaye (1997), Ngom (2003), and Torrence (2013a). The glottal stop is not considered a phoneme, but occurs word-initially in words beginning with a vowel (F. N. Diouf 2017). According to Ngom (2003) the voiceless glottal fricative [h] is in free variation with the voiceless uvular fricative [x]. I have heard the [ h$]$ instead of the $[x]$ most prominently with speakers from Gambia. Furthermore, certain consonants have geminate forms, namely: [pp], [bb], [tt], [dd], [cc], [ff], [kk], [gg], [qq], [mm], [nn], [nı], [ŋŋŋ], [11], [jj], [ww] (Bell 2003).

Phonological processes that occur in Wolof are consonant mutation (gemination and degemination and word-initial consonant mutation), vowel epenthesis, vowel coalescence, vowel harmony and glide insertion. I do not go into the details of consonant mutation here, as this aspect of the Wolof grammar is not necessary for the understanding of the data laid out in this thesis. Details of these processes can be found

|  | Labial | Alveolar | Palatal | Velar | Uvular | Glottal |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Stop | p b | t d | c f | k g | q | ? |
| Fricative | f | s |  | x |  | $\mathrm{h})$ |
| Nasal | m | n | n | y |  |  |
| Prenasalized | mb | nd | nj | ng |  |  |
| Glide |  |  | j | w |  |  |
| Liquid |  | l r |  |  |  |  |

Table 2.2: Consonants

| +ATR | -ATR |
| :--- | :--- |
| $\Lambda$ | $\partial$ |
| $\partial$ | o |
| $\varepsilon$ | e |

Table 2.3: ATR vowel harmony pairs
in Bell (2003), O. Ka (1989), Merrill (2018b), and Ndiaye (1997). I do want to briefly discuss vowel harmony, vowel coalescence and glide insertion. Vowel coalescence is the process whereby to vowels merge together. This is illustrated in (1) with the noun cere 'millet couscous', which ends in [ $\varepsilon$ ], and is immediately followed by the comitative preposition $a k$, which begins with [ $\Lambda$ ]. These two vowels then merge into [ $\varepsilon \varepsilon]$.
(1) ceree:k soow <cere ak soow
millet.couscous:Сом curdled.milk
'Millet couscous with curdled milk.'
(J. L. Diouf 2001, p. 36)

However, a cluster of two consequent vowels can also be broken up by inserting a glide. This is illustrated in (2) with the glide [j] being insterted between the verb fo, which ends in [ 0 ] and the andative suffix $-i,[i]$.
(2) fo-yi <fo-i
play-AND
'Go and play.'
(J. L. Diouf 2001, p. 38)

Furthermore, Wolof has ATR vowel harmony. The +ATR and -ATR counterparts are shown in Table 2.3.

Harmony spreads from left to right, as illustrated in (3).
(3) a. Lekk-oon ngeen.
eat-pst CLFOC.2PL
[lekk-oэn ŋgeqn] -ATR verb
'Y'all ate.'
b. Dóór-óón ngéén
eat-Pst CLFOC.2PL
[door-oon ygeen] +ATR verb
'Y'all hit.'
(Torrence 2013a, p. 11)
Vowel harmony is often unmarked in written language. In this thesis I will also not mark vowel harmony, as it is not necessary for the understanding of my data. In

| IPA | Codified | French-based |
| :--- | :--- | :--- |
| $\partial$ | ë | eu |
| i | i | ui |
| u | u | ou |
| c | c | thi |
| f | j | di |
| x | x | kh |
| n | $\tilde{n}$ | gn |
| j | y | y |

Table 2.4: Differences between IPA, the codified and the French-based orthography
this thesis I use the standardized orthography for Wolof in Latin script. This is the orthography used by linguists, thus it is consistent with previous works on Wolof. However, one should bear in mind that this does not represent the way many speakers write their language in informal settings, such as social media. Many speakers often use a French-based orthography instead. Table 2.4 shows the major differences between the IPA symbol of a phoneme, the codified orthography used by linguists, and the unofficial French-based orthography.

An example is given in (4).
(4) a. Kër gi.
codified orthography
b. Keur gui.

French-based orthography
'The house.'
Another orthography in which Wolof is written is the Arabic alphabet (ajami). Wolof written in this script is known as wolofal. Furthermore, there is the Garay script, which was specifically developed for Wolof by Assane Faye in 1961, but is currently little used (Mc Laughlin 2017).

### 2.3 Noun classes

Like most Niger-Congo languages, Wolof has noun classes. The noun classes usually do not surface on the noun itself, unlike in most other Niger-Congo languages (Mc Laughlin 1997). Wolof has at least 8 singular and 2 plural noun classes (Ngom 2003). The singular noun classes are $b, g, w, l, k, j, m$ and $s$ and the plural classes are $\tilde{n}$ and $y$, as shown with examples in Table 2.5 .

| Singular | Example | Gloss | Plural | Example | Gloss |
| :---: | :--- | :--- | :---: | :--- | :--- |
| $\mathbf{k}$ | nit $k i$ | 'the person' | $\tilde{\mathbf{n}}$ | nit $\tilde{n i} i$ | 'the people |
| $\mathbf{b}$ | xale $b i$ | 'the child' | $\mathbf{y}$ | xale $y i$ | 'the children' |
| $\mathbf{m}$ | picc mi | 'the bird' |  |  |  |
| $\mathbf{j}$ | jumaa $j i$ | 'the mosque' |  |  |  |
| $\mathbf{1}$ | ndap $l i$ | 'the dish' |  |  |  |
| $\mathbf{w}$ | xaal wi | 'the melon' |  |  |  |
| $\mathbf{s}$ | suuf si | 'the ground' |  |  |  |
| $\mathbf{g}$ | kaani $g i$ | 'the chili pepper' |  |  |  |

Table 2.5: Basic noun classes in Wolof.

Almost all singular classes correspond to the $y$ plural class, except the $k$-class, which is the human class and corresponds to the $\tilde{n}$-class. In Dakar Wolof the $b$-class gets generalized for singular nouns (Mc Laughlin 2001), this also sometimes happens in my data. More on noun classes can be found in Babou and Loporcaro (2016), Mc Laughlin (1997), and Sy (2003).

Noun classes are used to form determiners, demonstratives, relativizers, question words and sometimes possessives. The examples in (5), taken from Torrence (2013a), show how definite determiners are formed for the $m$-class word xar 'sheep' and the $w$-class word xaal '(water)melon'.
(5) a. Xar m-i.
sheep nc.sG-def.prox
'The sheep.'
b. Xaal w-i.
melon nc.sG-Def.prox
'The melon.'
(Torrence 2013a, p. 17)
Determiners consist of a noun class marker and a deixis marker. For definite determiners, the deixis marker can be $i$ for proximal or $a$ for distal and it follows the noun class. With indefinite determiners, on the other hand, the deixis marker precedes the noun class. For indefinite determiners the deixis marker is unspecified and can be either $a$ or $u$. Thus the $a$ deixis marker in indefinites is not to be confused with the distal deixis marker $a$ in definites. There is no known difference in usage between $u$ or $a$ in indefinites. An illustration is given in (6).
(6) a. A-b xale.

INDF-NC.SG child
'A child.'
b. U-b xale.
indF-nc.sg child
'A child.'
c. Xale b-i.
child nc.sG-def.prox
'The child (here).'
d. Xale b-a.
child NC.SG-def.Dist
'The child (there).'
An abstract representation of the determiner constructions is shown in (7).
(7) a. Definite determiner: NC-DEIX
b. Indefinite determiner: DEIX-NC

Additionally, the existential quantifier nc-enn can be used as a indefinite determiner. In the case of (7) this would be benn xale. Indefinite nouns can be also left bare, i.e., in the case of (7), simply xale. More on the differences between these three indefinites can be found in Tamba, Torrence, and Zimmermann (2012).

Like the existential quantifier, the universal quantifier is formed with a noun class, namely with the construction NC-epp, as exemplified in (8-a) and (8-b). Furthermore, the word for 'other' is also formed with a noun class and the morpheme -eneen, as exemplified in (8-c) and (8-d).
(8) a. Xale y-epp.
child nc.pl-all
'All children.'
b. B-epp xale.

Nc.sG-all child
'Every child.'
(Tamba, Torrence, and Zimmermann 2012, p. 29)
c. B-eneen xale.

NC.SG-other child
'Another child.'
d. Y-eneen xale.

NC.PL-other child
'Other children'

Examples (8-a) and (8-b) show that a plural noun class with -epp corresponds to 'all' in English and a singular noun class to 'every'.

Furthermore, demonstratives are also formed with noun classes. Like definites, the form of the demonstratives is based on deixis. (9), from Robert (2006), shows some examples of demonstratives with the noun $x a j$ ' $\operatorname{dog}^{\prime}$.
(9) a. xaj b-ii/ b-ile
dog NC.SG-DEM.PROX NC.SG-DEM.PROX
'this dog' (close to me)
b. xaj b-ee/ b-ale
dog NC.SG-DEM.DIST NC.SG-DEM.DIST
'this dog' (far from me)
c. xaj boobu
'that dog' (close to you and far from me)
'aforementioned dog'
d. xaj boobale
'that dog' (far from both of us, but closer to you)
(Robert 2006, p. 158)
In (9) we see that the form -ile roughly corresponds to the form ii (proximal) and the form -ale roughly corresponds to the form -ee (distal). Furthermore, (9) shows that the form NC-oo-NC- $u$ is used for things that are aforementioned. In order to keep the glosses as simple as possible, and considering the exact formation of the demonstratives is not the main point of this thesis, I gloss demonstratives with the NC-oo-NC- $u$ and NC-OO-NC-ale form simply as NC.DEM.

Relativizers and constituent question words are also formed with noun classes. The form of the relativizer furthermore depends on i) definiteness and ii) whether the relative clause is formed with a stative or active verb. Examples are given in (10).
(10) a. Nit k-u njool.
person NC.SG-REL be.tall
'A tall person.' (lit: 'a person who is tall') indefinite + stative verb
b. Xale b-u rafet b-i.
child NC.SG-REL be.pretty NC.SG-DEF.PROX
'The pretty child.' (lit: 'the child who is pretty') definite + stative verb
c. Xale b-i xam.
child NC.SG-REL.DEF.PROX know
'The child who knows.' definite + active verb
(Mc Laughlin 2004, p. 243)

In (10-a) we see that an indefinite noun with a relativized stative verb, which in English corresponds to an adjective, is formed with the relativizer NC-u. In (10-b), a relative clause consisting of a stative verb with a definite noun, the relativizer has the same form as in (10-a), but the definite determiner bi is added at the end of the relative clause. In ( $10-\mathrm{c}$ ), which is a relative clause consisting of an active verb and a definite noun, the relativizer and the definite article are amalgamated into one form. Free relatives can also occur, as shown in (11).
(11) Am na fii k-u soxor. have clofoc.3sG here.prox nc.sG-Rel be.mean 'There is someone evil here.'
(Mc Laughlin 2004, p. 250)

In (11) the relative clause $k u$ soxor 'who is evil' is not preceded by a noun, and is interpreted as 'someone who is evil'.

As for question words, consider (12).
(12) a. K-u jël saabu b-i?

NC.SG-REL take soap NC.SG-DEF.PROX
b. K-an moo jël saabu b-i?

NC.SG-Q SFOC.3sG take soap NC.SG-DEF.PROX
'Who took the soap?'
(Robert 2006, p. 161)
c. K-oo-k-an la?

NC.SG-OO-NC.SG-Q CFOC.3SG
'Who is it?' (for example, when someone knocks at the door)
(12) shows that there are three ways to form constituent question words. The first, (12-a) is grammaticalized from a relative clause (Robert 2016). The clause in (12-a) has the exact same structure as (11), but is interpreted as a constituent question. Another way to form constituent questions is with a noun class and the morpheme an, as in (12-b). This form is obligatorily marked as a focus, in (12-b) this is moo, for subject focus (this is elaborated upon in Section 2.5). Despite the syntactic differences between the two question words, there are no known interpretive differences between them (Martinović 2017; Robert 2016; Torrence 2013a). The final form, NC.SG-OO-NC.SG-Q, as in (12-c), seems to have an existence presupposition (Torrence 2013a). For clarity, I will gloss constituent question words which are formed from relative markers not as NC-REL, but simply as the question word itself, i.e., 'who', 'what', etc. Constituent questions which are formed with the constituent question morpheme -an, I will gloss as NC-Q. The question words with existence presupposition do not occur in my data.

|  | Singular | Plural |
| :---: | :--- | :--- |
| 1SG | sama NOUN | samay NOUN |
| 2SG | sa NOUN | say NOUN |
| 3SG | NOUN-am | ay NOUN-am |
| 1PL | sunu NOUN | sunuy NOUN |
| 2PL | seen NOUN | seeni NOUN |
| 3PL | seen NOUN | seeni NOUN |

Table 2.6: Possessive pronouns.

Like the question words with $-u$, conditional and temporal conjunctions are also grammaticalized from relative clauses. An example of a hypothetical conditional is shown in (13).
(13) S/bu ma gis-ee Omar, dinaa ko ko wax.
if 1SG see-pfv O. FUT.1SG 3 SG.O 3 SG.o say 'If I see Omar, I will tell him.'
(J. L. Diouf 2001, p. 135)

In (13) we see that the antecedent of the conditional is marked with $s u$ or $b u$, which are the noun classes $b$ and $s$ and the relative marker $u$. Additionally a perfective marker on the verb, -ee. For clarity, I gloss temporal and conditional conjunctions as 'if'.

Noun classes also play a role in the formation of possessive pronouns. The paradigm of possessive pronouns is shown in Table 2.6.

We see in Table 2.6 that the plural noun class is used to mark plurality on the possessed nouns. Sometimes singular noun classes can also show up on the possesive pronouns sama 1SG, sa 2SG and sunu 1PL, although this is rare (Merrill 2018a). Some examples are given in (14).
(14) a. sama-w fas
poss.1SG-NC.sG horse
'my horse'
b. sa-b laax

POsS.1SG-NC.sG porridge
'your porridge'
(Merrill 2018b, p. 244)
Finally, noun classes and deixis also play a role in the formation of the locative preposition, and the locative and manner adverbials. Wolof has one locative preposition, namely $c i$. As this is the standard form of this preposition, I will gloss it as loc. However, the form $c a$ is used with the distal determiners. An example is given in (15).

| Locative class | Gloss | Manner class | Gloss |
| :--- | :--- | :--- | :--- |
| $f i$ | 'here' | $n i$ | 'like this' |
| $f a$ | 'there' | $n a$ | 'like that' |
| fu | 'where' | $n u$ | 'how' |
| fii | 'right here' | nii | 'like this' |
| fan | 'where'' | nan | 'how?' |
| fale | 'there' | nale | 'like that' |
| foofu | 'over there' | noonu | 'in the manner in question' |
| foofale | 'aforementioned place' | noonale | 'aforementioned way' |
| foofan | 'where exactly?' | noonan | 'how exactly?' |
| fepp | 'everywhere' | nepp | 'in every way' |
| fenn | 'some-', 'no-', 'anywhere' | nenn | 'some-','no-','anyway' |
| feneen | 'another place' | neneen | 'another way' |

Table 2.7: Manner and locative 'noun classes'.
(15) a. C-i néég b-i.

LOC-PROX room NC.SG-DEF.PROX
'In the room (close to me).'
b. C-a néég $\mathrm{b}-\mathrm{a}$.

LOC-DIST room NC.SG-DEF.DIST
'In the room (far from me).'

Since the distal form of the preposition is more rare in my data than the proximal one, I will henceforth gloss ci simply as loc and $c a$ as loc-dist. According to Torrence (2013a) the $c$ in the preposition $c i$ is a 'vestigal' noun class. The locative and manner adverbials, are also formed with such vestigal noun classes, namely $f$ and $n$ respectively. The reason Torrence (2013a) refers to them as vestigal, is because they do not occur with any nouns. Nonetheless, they form determiners, question words, relativizers and demonstrastives in the same way that other noun classes do. This is illustrated in Table 2.7, based on similar tables from Robert (2010b, 2016) and Torrence (2013a).

This concludes the section on the Wolof noun class system and the linguistic elements that are formed using noun classes: determiners, demonstratives, quantifiers, relativizers, constituent questions, conditional conjunctions and possessive pronouns. In the next section I show aspects of verbal morphology.

### 2.4 Verbal morphology

Verbs in Wolof can take different verbal suffixes that encode a wide array of meanings: past tense, negation, valency changers such as the applicative and antipassive, venitive
and andative verbal deixis, and concepts that are expressed with adverbs in English such as 'yet'. In this section I want to highlight some verbal affixes that occur in my data. First, an example of the venitive and andative suffixes is given in (16).
(16) a. Sàcc-i na-ñu gato b-i.
steal-AND CLFOC-3PL cake NC.SG-DEF.PROX
'They went and stole the cake.'
b. Sàcc-si na-ñu gato b-i.
steal-ven CLFOC-3PL cake NC.SG-DEF.PROX
'They came and stole the cake.'
(Torrence 2013a, p. 22)
In Torrence (2013a) -si and -i are glossed as 'illative' and 'allative' respectively. О. Ka (1989) glosses them as 'come' and 'go'. I use the terms 'venitive' and 'andative', as those terms encompass the meanings 'come' and 'go'.

There are two applicative suffixes: -al and $-e$. The applicative suffix -al can give rise to a benefactive reading, as in (17-a), or a comitative reading, as in (17-b).
(17)
a. Mu teg-al leen xeer $w$ - iëkk ci taax 3SG put-APPL 3PL stone NC.SG-REL.DEF.PROX be.first LOC building m -i.
NC.SG-DEF.PROX
'Il a posé pour eux la première pierre sur la construction.'
'He put the first stone in the construction for them.' benefactive
(Voisin-Nouguier 2002, p. 218)
b. Sama baay laa def-al sama kër. poss.1SG father CFOC.1SG make-APPL POss.ISG house
'J'ai fait ma maison avec mon père.'
'I made my house with my father.' comitative
(Voisin-Nouguier 2002, p. 220)

The applicative $-e$ can give rise to a instrumental reading, as in (18-a), a manner reading, as in (18-b), or a location reading as in (18-c)
(18) a. Ceeb-u jën la-ñu añ-e rice.GEN fish CLFOC-3PL lunch-APPL
'They had CEEBU JËN for lunch.' instrumental (Creissels and Nouguier-Voisin 2008, p. 5)
b. D-u-ma ko def-e noonu. IPFV-NEG-ISG do-APPL like.that
'I will not do it like that.'
manner
(Voisin-Nouguier 2002, p. 233)
c. Jamanoy tàngaay, ci teraas b-i lañu-y lekk-e. period heat LOC terrace NC.SG-DEF.PROX CLFOC-1PL-IPFV eat-APPL
'During the heat, we eat on the terrace.' locative
(Voisin-Nouguier 2002, p. 228)
The causative can also be expressed with the suffixes -al and $-e$, which, according to Voisin-Nouguier (2002), are related to the respective applicative suffixes.
(19) a. Dinaa toog-al-al nenne b-i.

FUT.ISG sit-CAUS-APPL baby NC.SG-DEF.PROX
'I will seat the baby for you.' causative -al
(Comrie 1985, p. 316)
b. Génn-e naa guro $y$-u sànkar y-épp.
leave-CAUS CLFOC.1SG cola.nut NC.PL-REL be.with.worms NC.PL-all 'I took out all the cola nuts that had worms.' causative $-e$ (Voisin-Nouguier 2002, p. 242)
(19-a) shows an example with -al in the verb toogal 'cause to sit'. (19-a) furthermore shows that the applicative and causative suffix, though related, are two different suffixes, as they can co-occur. (19-b) shows e-causative with the verb génne 'cause to leave'. There are 6 further causative suffixes, each with their own subtle differences. See Robert (2017) and Voisin-Nouguier (2002) for a complete overview.

There is one more $e$-suffix, and that is the antipassive. The antipassive is used to decrease a verb's valency by one by removing either the object or the indirect object. An example is shown in (20).
a. Xaj b-ii
d-u màtt-e
dog NC.SG-DEM.PROX IPFV-NEG.3SG bite-ANTIP
'This dog does not bite.'
b. Alal d-u jox-e màqaama
wealth IPFV-NEG.3SG give-ANTIP prestige
'Wealth does not give prestige.' (Creissels and Nouguier-Voisin 2008, p. 6)
The verb mátt 'bite' is usually transitive. In (20-a) the antipassive $e$ is used to mark that there is no object. The verb jox in (20-b) is usually ditransitive; $e$ is used to mark the removal of the indirect object.

|  | Perfective | Imperfective | Imperative |
| :--- | :--- | :--- | :--- |
| 1SG | VERB- $u-m a$ | $d-u$-ma VERB |  |
| 2SG | VERB- $(u-l) O O$ | $d$-oo VERB | bul VERB |
| 3SG | VERB- $u-(t / l)$ | $d-u$ VERB |  |
| 1PL | VERB- $u-n u$ | $d-u-n u$ VERB |  |
| 2PL | VERB- $u-n g e e n ~$ | $d-u-n g e e n ~ V E R B ~$ | bu-leen VERB |
| 3PL | VERB- $u-\tilde{n} u$ | $d-u-\tilde{n} u$ VERB |  |

Table 2.8: Negation.

Another al-suffix is the singular imperative marker. The plural imperative is marked with -leen. Examples are given in (21).
(21) a. Dem-al!
go-Imp.sG
'Go!' (to one person)
b. Dem-leen!
go-Imp.pl
'Go!' (to more people)
(J. L. Diouf and Yaguello 1991, p. 24)

Furthermore, negation in the perfective aspect is expressed as a verbal suffix. In future and habitual readings, and in imperatives, the negation surfaces as an auxiliary. Both the suffix and the auxiliary are also marked for the person and number of the subject. This is illustrated in Table 2.8.

In Table 2.8 we see that all the negations contain the morpheme $u$. The perfective and imperfective negation furthermore contain a subject marker that agrees with the subject in person and number. Additionally, the imperfective negation contains the imperfective morpheme $d i$, which is reduced to a word-initial $d$-. While the perfective negation attaches to the verb, the imperfective negation precedes the verb. The imperative negation is bul for singular and buleen for plural and also precedes the verb. Examples are given in (22).
(22) a. D-u-ma dem. IPFV-NEG-1SG go
'I won't go.'
imperfective
(Munro and Gaye 1997, p. 50)
b. Dem-u-ma c-a suul b-a.
go-NEG-1SG LOC-DIST burial NC.sG-DEF.DIST
'I didn't go to the burial.'
perfective
(J. L. Diouf 2003, p. 389)
c. Bul dem léégi!
imp.neg.sg go now
'Don't go now!' imperative
(J. L. Diouf 2003, p. 30)

What is expressed with the adverb yet in English, is expressed with a suffix -ag in Wolof. When -ag is used, it always precedes the perfective negation, as in (23).
(23) Lekk-ag-u-ma.
eat-yet-NEG-1SG
'I haven't eaten yet.'
The suffix - $u$ marks what is glossed in Voisin-Nouguier (2002) as the 'middle voice', and 'anticausative' in Tamba (2010). An example is shown in (24).
(24) Bunt b-i tëj-u na.
door nc.SG-DEF.Prox close-mid clfoc.3SG
'The door closed.'
(Tamba 2010, p. 42)
We have also seen in (13) that the antecedent clause in a conditional is marked with a perfective -ee (Torrence 2013a). The past tense is also marked as a verbal suffix, namely with the suffix -oon. An example is given in (25).
(25) Dem-oon na.
go-Pst clfoc.sG
'Il était allé.'
'He had gone.'
(Church 1981, p. 8)
One final verbal suffix that I want to illustrate is the suffix $-a$, which occurs between two verbs. Constructions that correspond to two verbs of which the second is an infinitive in English, are marked with the suffix $a$ on the first verb in Wolof. Torrence (2013a) glosses this as 'infinitive', Voisin-Nouguier (2006) glosses it as 'verbal dependenacy', as the second verb is dependent on the first. I use the gloss vL, for 'verbal linker', as I feel this is the most neutral. An example is given in (26).
(26) Dafa bañ-a dem.
vFoc.3sG refuse-vl go
'He refuses to go.'
(Church 1981, p. 52)

This section has illustrate some of the verbal suffixes in Wolof that occur in my data: andative -si and ventive $i$, the applicatives $-a l$ and $-e$, the causatives -al and $-e$, antipassive $-e$, imperative -al and -leen, negation $-u$-subj, 'yet' -ag, middle voice or anticausative $-u$, the perfective $-e e$, the past tense -oon, and the verbal linker $-a$. This is far from an exhaustive list of the Wolof verbal suffixes. Furthermore, there is a hierarchy in which these suffixes occur when they co-occur. For more details see Buell and Sy (2005), Buell, Sy, and Torrence (2008), and O. Ka (1989). In the next section I turn to the verbal conjugations, which form part of the verbal complex.

### 2.5 Verbal conjugations

Every clause in Wolof contains what Robert (1989) calls a 'verbal conjugation'. These conjugations appear pre- or post-verbally and their form changes depending on person and number, aspect, mood, and to which syntactic constituent the focus corresponds to. Only one conjugation can occur per clause.

The word order in Wolof is $\operatorname{SVO}(\mathrm{X})$, although the object appears in front of the subject when it is focused. Focus in Wolof is marked morphosyntactically by a combination of the form of the verbal conjugation and sometimes movement to the left periphery (Dunigan 1995; Martinović 2015a; Njie 1982; Robert 1989; Russell 2006; Torrence 2013a). The relevant conjugations for focus, illustrated in Table 2.9, indicate whether the subject or the complement is fronted and thus focused, or the predicate or whole clause is focused (only perfective aspect is illustrated here).

The first three conjugations in Table 2.9 occur whenever a constituent is focused. The na-form, which I dub the clausal focus conjugation, is known in the literature under many names: perfect in Robert (1989), perfective in Mc Laughlin (2004), sentence focus in Russell (2006), no focus in Ngom (2003), finite in Torrence (2013a) and affirmative in

|  | Subject focus | Complement focus | Verb/VP focus | Clausal focus |
| :--- | :--- | :--- | :--- | :--- |
| 1SG | maa | laa | dama | naa |
| 2SG | yaa | nga | danga | $n g a$ |
| 3SG | moo | la | dafa | na |
| 1PL | noo | lanu | danu | nanu |
| 2PL | yeena | ngeen | dangeen | ngeen |
| 3PL | $\tilde{n}$ оo | lañu | dañu | nañu |

Table 2.9: The focus conjugations in perfective aspect and indicative mood. Adapted from Robert (2010b, p. 238)

Dunigan (1995), see Guérin (2016) for an overview and a grammaticalization account of the $n a$-forms. Russell (2006) observes that the $n a$-forms occur in sentence focus environments. Ngom (2003) refers to na as marking 'no focus', since no term focus is marked with $n a$. Since all forms in Table 2.9 are perfective and finite, a gloss in terms of focus marking makes the distinction between the forms in Table 2.9 more clear. I use 'clausal focus' instead of 'sentence focus', as focus is marked per clause in Wolof. Thus, multi-clausal sentence can have multiple conjugations.

In what follows I will show examples the verbal conjugations. (27) and (28) illustrate the use of the subject focus conjugation.
(27) A: K-an moo damm taabal b-i?
nc.sG-Q SFOC.3sG break table nc.sG-def.prox
'Who broke the table?'
B: Musaa moo ko damm M. SFOC.3SG 3SG.o break 'MOUSSA broke it' subject focus

In (27) the subject focus conjugation is used in both the question and the answer. It follows the question word and subject noun respectively. The form moo marks that the subject is third person singular. When the subject is an overt noun, the subject marking can also be omitted, in which case an invariant form $a$ is used, as in (28).
(28) Musaa-a damm taabal b-i.
nc.sG-SFOc break table nc.SG-DEF.PROX
'MOUSSA broke the table.' subject focus
The form that Robert (1989) labels the 'complement focus conjugation' is used for every focus that is not either subject, verb/predicate or sentence focus. Thus, this can be object focus, (29-a), location focus, (29-b), or a focused subordinated clause, (29-c).
(29)
a. Tool b-i la-ñu bey
field NC.SG-DEF.PROX CFOC-3PL cultivate
'They have cultivated the FIELD.' object focus
b. Fii laa gis gaynde.
here.prox cFoc.isg see lion 'I have seen a lion HERE.' location focus
c. [Bi ma nekk-ee xale] laa gis gaynde. when 1SG be.located-PFV child CFOC.1SG see lion 'When I was a child I saw a lion.' subordinated clause focus (Robert 2010b, pp. 17, 18)
(27), (28) and (29) are in the perfective aspect. Imperfective aspect is marked with the suffix $-y$ on the subject, object and verbal focus conjugation. This is shown in (30), a minimal variant of (27). The suffix $-y$ is a variant of the imperfective morpheme di.
(30) Moussa moo-y damm taabal b-i.

NC.SG-Q SFOC.3SG-IPFV break table NC.SG-DEF.Prox 'Moussa is breaking the table.'
subject focus
The verb/predicate focus conjugation is exemplified in (31).
(31) a. Tóx-u-ma, dama-y fo.
smoke-NEG-1SG vFOC.1SG-IPFV play
'I'm not smoking, I'm PLAYING (with the cigarette).' verb focus (Robert 2010b, p. 31)
b. Sama jëkkër nekk-u fi, dafa dem àll b-a. poss.1SG husband exist-neg.3SG here vfoc.3SG go forest nc.sG-def.dist 'My husband isn't here, he WENT TO THE FOREST.' predicate focus (Robert 2010b, p. 38)

A difference between the clausal focus conjugation and the other conjugations in Table 2.9, is that the clausal focus occurs post-verbally, while the other three occur pre-verbally. (32) shows the clausal focus conjugation in an answer to 'What happened?'
(32) A: 'Lu xew?'
what happen
'What happened?'
B: Fatou bind na téére
F. write 3 sG.clfoc book
'Fatou wrote a book.' sentence focus

For the clausal focus conjugation, however, a completely different form is used for imperfective clausal focus, namely the conjugation that is often used in presentative and progressive constructions and which is formed with ngi. This form is referred to as presentative (J. L. Diouf 2001; Robert 1989) or progressive (Torrence 2013a), but it is morphologically complex see Guérin (2016) and Martinović and Schwarzer (2017) for a decomposition of it's elements. Ngom (2003) observes that this form is used to focus the whole sentence. An example of sentence focus with the progressive form, also referred to as presentative, is given in (33).

|  | Short form | Long form |
| :--- | :--- | :--- |
| 1SG | màngi | maangi |
| 2SG | yàngi | yaangi |
| 3SG | mungi | moongi |
| 1PL | nungi | noongi |
| 2PL | yeengi |  |
| 3PL | ñungi | ñoongi |

Table 2.10: The progressive aspect. (Torrence 2013a, p. 45)
(33) A: Ndax mu-ngi taw?

Q 3SG-PROG rain 'Is it raining?'

B: Déédéét, ndëkkendoo y-i ñu-ngi-y raxas ndap. no neighbor NC.PL-DEF.PROX 3PL-PROG-IPFV wash dish 'No, the neighbors are washing the dishes.' sentence focus

The ngi form is prefixed by the subject marker. The full paradigm of the progressive, which has an interchangeable long and short variant (Torrence 2013a), is given in Table 2.10 .

The subject and object focus conjugations are also used in copular constructions, as shown in (34). Cross-linguistically, copulae and focus are commonly realized in the same way (Heine and Kuteva 2002).
(34) a. Gàllaay a
G. SFOC.3SG
b. Gàllaay la
G. CFOC.3sG
'It's Gallaay.'
(Torrence 2013b, p. 193)
The exact differences between these two types of copular clauses can be found in Martinović (2013) and Torrence (2013b).

All of the conjugations shown in this section are morphologically complex, and details of their composition can be found in Torrence (2013a) and Martinović (2017). Torrence (2013a,b), following Kihm (1999) shows that the historical origin of the focusing conjugations can be found in clefts. From clefts to focus markers is an attested grammaticalization path (Heine and Kuteva 2002). Torrence (2013b) observes that these constructions differ in usage from English clefts, as for example an existential quantifier such as 'something' can be clefted in Wolof, while in English it cannot. Martinović

|  | Future | Optative |
| :--- | :--- | :--- |
| 1SG | dinaa | naa/ nama |
| 2SG | dinga | nanga |
| 3SG | dina | na |
| 1PL | dinu | nanu |
| 2PL | dingeen | nangeen |
| 3PL | diñu | nañu |

Table 2.11: The future and the optative forms, based on Guérin (2016, pp. 84, 103)
(2013) shows that there are even more differences between the conjugations in Wolof and clefts, as in long distance extraction, such as (35), the marker la shows up in the intermediate landing site of the extracted noun 'Ali'.
(35) Ali laa gëm ni [la Musaa xalaat ni [moo leen gis]]. A CFOC.1sG believe COMP CFOC.3SG M think COMP 2SFOC.3SG 3PL.o see 'I believe that Moussa thinks that ALI saw them.' (Martinović 2013, p. 1)

The fact that la occurs in the intermediate landing site in the first complement clause shows that (35) cannot be a cleft construction. It also shows that la can also not be just a focus marker, as the clause that precedes la, 'I believe' is not the pragmatic focus of (35). Therefore, Martinović (2015a) analyzes the $a$ and la-forms as markers of A'-movement. Further details of this analysis can be found in Martinović (2013, 2015a, 2017). For my purposes in this thesis, it is important to recognize the focus that is associated with the different forms of the conjugations in the data that I will show. Therefore, I use focus-based glosses for clarity: SFOC for subject focus, VFOC for verb and predicate focus, CFOC for complement focus and CLFOC for clausal focus, even though this is an oversimplification.

Two more verbal conjugations are the future and the optative form, which are both also related to the na form used in sentence focus (Guérin 2016). Their paradigms are given in Table 2.11.

Finally, there is what Robert $(1989,1996)$ calls the 'zero aspect' or 'narrative' form and Torrence (2013a) the 'subjunctive'. This 'verbal conjungation' consist of a subject marker only and no specification for aspect or focus. It is mostly used in narratives and in dependent clauses, such as relative clauses and clauses embedded under verbs like 'want'. The former is exemplified in (36).
(36) Bëgg naa ñu togg. want CLFOC.1SG 3PL cook

|  | Subject (zero aspect) | Object clitic | Emphatic pronoun |
| :--- | :--- | :--- | :--- |
| 1SG | $m a$ | $m a$ | man |
| 2SG | $n g a$ | $l a$ | yow |
| 3SG | $m u$ | $k o$ | moom |
| 1PL | $n u$ | $n u$ | nun |
| 2PL | $n g e e n$ | leen | yeen |
| 3PL | $\tilde{n} u$ | leen | $\tilde{n} 0 o m$ |

Table 2.12: The Wolof pronouns.
'I want them to cook it.'
(Torrence 2013a, p. 78)
The paradigm subject markers and other pronouns, object clitic pronouns and emphatic pronouns is shown in Table 2.12.

The object clitics are usually cliticized to the right edge of the verbal conjugation, as in (37). See Russell (2006) and Zribi-Hertz and L. Diagne (1999) for more information.
(37) Jox naa ko ko.
give clfoc.1sg 3sG.o 3 sg.o
'I have given it to her.'
When an object clitic directly follows the 3SG verbal negation, the $-l$ suffix from the negation is dropped, as in (38).
(38) Gërëm-u ko.
praise-neg.3sg 3sg.o
'He didn't praise her.'
The same happens when an object clitic follows the singular imperative, as in (39).
(39) Jox ma ko!
give 1SG 35G
'Give it to me!'
While normally singular imperatives are marked with -al, as was shown in (21-a), in (39) -al is dropped, since the clitic ma immediately follows the verb.

The emphatic pronouns are used when the pronoun is focused, as in (40-a) or topicalized, (40-b), after prepositions, as in (40-c) or a fragment answer, as in in (41). In Chapter 9 I will give the details on topicalization in Wolof, therefore I will not go into it here.


### 2.6 Adverbials, connectors, particles and similar things

There are very little underived adverbs in Wolof. Adverbial constructions are often formed with the prepositions $c i$ 'in' and $b a$ 'until'. Examples are shown in (42).
(42) a. Léégi dinaa buur.
now fut.1sg king
'Now I will be king.' underived adverb
(Church 1981, p. 116)
b. Ci gannaaw laa ñëw.
loc back CFOC.ISG come
'I came AFTERWARD.'
ci-adverbial
(Munro and Gaye 1997, p. 31)
c. Lekk na ba noppi.
eat cFloc.3SG until finish
'He has eaten already.'
ba-adverbial
(Munro and Gaye 1997, p. 20)
Wolof has a separate nominal and clausal conjunction. The nominal conjunction is grammaticalized from the comitative preposition $a k$, as shown in (43-a) and (43-b). The clausal conjunction is $t e$ is illustrated in ( $43-\mathrm{c}$ ).
(43) a. Mën ngaa wax ak moom. can Clfoc.2SG talk COM 3SG.EMPH 'You can talk to him.'
(J. L. Diouf 2003, p. 5)
b. Jénd-al ceeb ak diwlin. buy-Imp.sG rice nconj palm.oil 'Buy rice and palm oil.'
(J. L. Diouf 2003, p. 5)
c. Dem naa, te dem nga.
go CLFOC.1SG SCONJ go CLFOc.2SG
'I have gone and you have gone.'
(P. Diagne 1971, p. 196)

Furthermore, Wolof has various particles, interjections and ideophones, many of which will be illustrated in this thesis.

### 2.7 Variation

Wolof has different dialects, and the exact classification of these dialects is disputed. As mentioned in Chapter 1, according to Kâ and Saar (1987), there are the Northern dialects including Waalo and Jolof, Central dialects including Kajoor and Bawol and Southern dialects including Saalum. In this section I list some variation within Wolof which comes back in the data I present. In the Saalum dialect the third person singular negation is -ut instead of -ul (Merrill 2020).

Furthermore, there is the Western dialect, which includes the varieties spoken in Cabo Verde, and Lebu Wolof, which is very different from the other dialects (Robert 2011) and sometimes considered a separate language (Winter 2014). Some of the data I present in this thesis are from bilingual Wolof and Lebu speakers from Ngor, Dakar. Some of the differences that I noticed between these speakers and other speakers in Dakar was that the Lebu speakers realized the third person singular object clitic as $k a$ instead of ko and the second person singular emphatic pronoun as yaw instead of yow.

The verbal conjugations were often abbreviated by many speakers. The third singular verb focus form was abbreviated from dafa to da. The third plural perfective clausal focus form was sometimes abbreviated to from nañu to nan and the third plural complement focus form from lañu to lañ or lan. The [c] was sometimes realized as [s], especially in the preposition $c i$, which was by some speakers pronounced as $s i$. Furthermore, in Dakar Wolof, the first plural and third plural forms of the verbal conjugation are interchangeable (Ngom 2003).

Most of the speakers that I worked with lived in Dakar. The Wolof spoken in large cities like Dakar is known as 'urban Wolof'. Due to urbanization, Wolof spreads in cities
as a lingua franca and this variety of Wolof is characterized by influence from French and English and the overgeneralization of the $b$-class Mc Laughlin (2001, 2008). Urban Wolof is often contrasted with olof bu xóót 'deep Wolof', which is the variety that has less French loanwords and is associated with villages and older people (Mc Laughlin 2008).

What could be relevant for the frequency of the particles and the way in which they are used, besides dialectal variation, is difference in social setting and caste. Traditional Wolof society has a caste system that consist of eight different groups, two of which have very distinct speech styles: the nobles (géér) and the praise singers or griots (gëmë̈l) (Irvine 1978). Noble speech style is characterized by low pitch and brief utterances, while griot speech is 'emphatic': it often contains high pitch and elaborate constructions. Furthermore, griot speech is conservative with the noun classes, whereas noble speech often overgeneralizes the $b$-class (Irvine 1978).

Different genres could also play a role in the use of particles. In this thesis most of my data is colloquial speech data, although I have some data from novels and folktales as well. I have no formal speech data, but I suspect particle usage to be less frequent in formal speech. Furthermore, there are religious genres such as Sufi oral narratives and Sufi poetry (Seck 2009). It could be that particles are not used in the same way across these genres.

Finally, Wolof writing varies on what is considered one word, and on whether vowel harmony is written.
(44) a. gisnëñuléén.
see-CLFOC.3PL.3PL.o ATR-marked, one word
b. gis na-ñu leen.
see CLFOC-3PL 3PL.O ATR-unmarked, multiple words
'I saw them.'
(Torrence 2013a, p. 13)
In this thesis, I use the writing convention as in (44-b): I write clitics as separate words and I don't write vowel harmony.

## 3 Daal: a summarizing discourse marker

### 3.1 Introduction

This Chapter concerns the particle daal. It is shown that the particle can occur in multiple positions in the clause, although the second and clause-final one are the most common. The second position can be either following a topic, a focus or a connector. There are two connectors which I show can occur with daal: kon 'then, thus' and waaye 'but'. Unlike gaa, which can also occur in multiple positions, daal cannot occur on its own. The prosodic realization of daal-sentences is shown in Figure 3.1. It shows that daal co-occurs with a sentence-final drop.


Figure 3.1: Pitch contour for Ñetteel-u nit k-i, kooku moo gëna muиs daal.

As for the meaning of daal, translations given by speakers include 'at least', 'in any case', 'all in all' and 'in a nutshell'. J. L. Diouf's dictionary translates daal as i) 'vraiment' ('really') and ii) 'en quelque sorte' ('in a way') (2003, p. 40). Another telling example is (2), which is a constructed example based on (35), to be presented in Chapter 4. First, the original example (35) is given here as (1).
(1) A-y jullit la-ñu de.

INDF-NC.PL believer CFOC-3PL DE 'They ARE believers.'
(1) is a naturally occurring example with de that is used in a verum context. I asked the speaker who produced (1) in which context (2) would be possible. (2) is a variation of (1), the only difference is that the particle de, which is felicitous in a verum context, has been replaced with daal. The speaker gave different translations, presented in (2).
(2) A-y jullit la-ñu daal.

INDF-NC.PL believer CFOC-3PL DAAL
'In any case, they are muslims.'
'I don't know anything else, but at least, they are muslims.'

Moreover, speakers have commented that daal can always be left out, suggesting it contributes to non-at-issue content.

I propose that daal is a discourse maker with a summarizing or concluding function. It is felicitous in contexts where the speaker is literally repeating what they have said before, or when the speaker summarizes the main point of a discourse in other words. In Sections 3.2-3.6 I give examples of daal and I group the different uses into i) daal after literal repetition, ii) concluding daal (not necessarily in repetition), iii) 'in any case' daal and iv) daal in imperatives with an advice reading. In Section 3.7 I present a QUD approach to capture the discourse marking function of daal. I claim that daal is licensed when the speaker wants to signal they make their final contribution to the super-question. The 'in any case' reading stems from the Maxim of Quantity (Grice 1975), as in these cases the speaker cannot fully answer the super-question, but gives an as complete answer as they possibly can. This proposal also captures the fact that daal is felicitous in advice imperatives, but not in warning or command imperatives: advice imperatives occur in a larger discourse context, whereas command imperatives require no previous discourse. I then compare daal to English so in Section 3.8 and show that part of the uses of so and daal overlap. I also discuss some sociolinguistic factors to the distribution of daal in Section 3.9. Section 3.10 concludes.

### 3.2 Daal after repetition

In the following examples daal always occurs after a person has been talking for a while and wraps up what they have to say. In the examples shown in this sub-section the speaker has literally repeated the daal-marked utterance before without daal. (3) and (4) are both examples in which people are describing pictures and have already talked about what they think they see in the picture before uttering the daal-sentence. Before uttering (3) the speaker has said already 'I see a tree in it. I also see houses in it.'
(3) Waaw, gis naa ci garab ak a-y kër daal. yes see clfoc.3sG loc tree and INDF-NC.PL house daAL 'Yes, I see a tree and houses in it.'

Dakar
After (3), the turn is taken by the other speaker.
The utterance in (4) is similar to (3). The speaker is looking at an ambiguous picture and has already said multiple times that the picture looks like a little bird. She concludes with (4).
(4) Waaw, picc b-u ndaw la daal.
yes bird NC.sG-REL be.small 3SG.CFOC DAAL
'Yes, it is a little bird.'
Dakar Speaker comment: 'If you say this sentence for the first time, you cannot add daal.'

The context for (5) is one in which speakers were asked to discuss the dilemma story The Three Youths (Bascom 2011), which ended with the question 'Who is the most clever?'. The speaker has been contemplating which of three young men in a story is the most shrewd and chooses the third one. He ends his argumentation with (5).
(5) Netteel-u nit k-i, kooku moo gën-a mus third-rel person nc.sG-DEF.Prox nc.sG.DEM SFOC.3SG be.better-INF be.shrewd daal.
DAAL
'The third person, that one is the most shrewd.'
Dakar
(6) shows that the repetition that licenses daal does not have to be literal repetition, but can also be repetition of near synonyms. In (6) a speaker is describing the political situation in Senegal using a tricolon with three similar verbs: jaxasoo 'be messy', agiter 'agitate' and xumb 'be busy' and ends the tricolon with daal.
(6) a. 'When we follow today's politics...'
b. Jaxasoo na lool, agité lool, xumb na lool daal. be.messy CLFOC.3SG very be.agitated.FR very be.busy CLFOC.3SG very DAAL 'It is very messy, it is very agitated, it is very busy.' Thiès

In (3)-(5) the speakers have almost literally repeated the daal-sentences before uttering it. In (6), however, the repetition is not literal, but near synonyms are used. The examples shown in the next section show the same function of daal, namely concluding, but in contexts in which the speaker doesn't literally repeat the same thing.

### 3.3 Daal as a concluding particle

Like the examples in the previous section, in the examples in this section daal occurs with a conclusion, but unlike those, does not occur after literal repetition. Rather, it summarizes the main point of what the speaker has been talking about in other words. In (7) the context is that the speaker is explaining what the fraud-related issues are with the system of collecting signatures to in order become a candidate in the upcoming
elections in Senegal. He names two examples, namely i) people giving their signature without thinking about it and ii) people paying for signatures, and then says: 'All of those (bad practices) you can find here' and continues with (7).
(7) Moo tax ma xam ni [daal, élection y-i di ñew, SFOC.3SG cause 1sG.s know Comp dall election.fr nc.pl-def.prof ipfv come bu si Yàlla def-ul sutura daal moom, mën na am safaan]. if loc God make-neg. 3 Sg respect dall moom can clfoc. 3 Sg have woe 'That's why I know that, as for the coming elections, if God does not help us there could be problems.' Thiès

In (7) the speaker first uses daal after the complemetizer of the matrix clause 'That's why I know that'. This is thus a clause-initial position, even though daal does not occur sentence-initially in my data. This is the only example I have of daal in a clause-initial position. The speaker then uses daal again after the embedded clause 'if God doesn't help us', this time together with the particle moom. Particles can be combined, and when they are combined, it is often with moom as the second particle, see Chapter 9. However, the contribution sentence-final moom is unclear. The speaker continues and finishes his turn with the following sentence: 'But since God is great and since Senegal is a peaceful and hospitable country, maybe God will bless it daal.' The final part of this sentence is shown in (8):
(8) Xëy na Suñu Boroom dina si def sutura daal. maybe 1pl.poss owner fut.3sg loc do respect daal 'Maybe God will bless it.'

Thiès
Daal is frequent in colloquial speech. In total I have a 103 tokens of daal in my recordings, which is more that any other particle (see Chapter 11 for an overview of particle frequencies). (7) and (8) also illustrate that daal is frequent, as it is used two times in the same sentence in (7) and then one more time shortly after in (8). The sentence in (9) comes from the same dialogue as (7) and (8). Now the other speaker, after explaining the elections in Senegal, concludes with the following sentence in (9):
(9) L'essentiel, nu-ng-i ñaan Yàlla daal, rew m-i jàmm the.essential 1PL-PROG-Prox pray God DAAL country nc.sG-dEf.Prox peace rekk am ci daal. only have loc Dadi
'The essential: we pray to God for the country to have peace.' (i.e., 'All in all, all we want is peace.') Thiès


Figure 3.2: Frame from Boy Dakar

In (9) the speaker uses daal both after the first and after the second clause. (10) is from a discussion of the dilemma tale The Estranged Mother (Senft 2003), in which a child has been abandoned and raised by foster parents. After a while a woman who claims to be the child's biological mother asks for him to come with her. The story ends with the question 'What should the child and the foster parents do?'. Before uttering (10), the speaker had been talking for a while and concludes with (10).
(10) Dañu war-a dem... def test ADN, xool baxam... k -an moo vfoc.3pl must-vl go do test DNA see whether nc.sG-Q SFOc.3SG moom xale b-i daal. possess child nc.sG-def.prox daAL 'They have to go do a DNA test to see who the child belongs to.' Dakar

Figure 3.2 is a frame from the comic Boy Dakar (Fall and Bâ 1988), as cited in Mc Laughlin (2001, p. 167). In the frame are the protagonist and a seer, who took 100CFA from the protagonist and with whom the protagonist had a fight before he was able to get his 10oCFA back. Thus, in Figure 3.2 the protagonist says Mes cent francs daal!, after having argued already that he wants them back.

In (11) daal appears in a elaboration together with the particle maanaam 'you know'. In (11), from a discussion of the dilemma tale The Three Youths, a speaker has been trying to explain that if you are intelligent, you don't need the whole morale of the
story explained to you. Then another speaker summarizes the interlocutors point with the proverb in (11).
(11) Maanaam, moo-y junj rekk doy na boroom xel you.know sFOC.3SG-IPFV allusion only suffice 3SG.CLFOC owner intelligence daal.
DAAL
'That is to say, only an allusion suffices for the intelligent one.' Ndem

### 3.4 Daal with the 'in any case' reading

Some speakers have pointed out to me that they have an extra flavor of 'at any rate' or 'in any case'. For example, in (12) two people are looking at an ambiguous picture and one of them says it looks like a duck.
(12) A: 'Do you think someone else could have a different view?'

B: Mën na nekk de. Waaye de, boo xol-ee daal lu-m can clfoc.3sG exist de but de if.2sG look-pFy dad what-3sG.s la-y njëkk-a jox daal, a-b kanaara la. Walla 2SG.O-IPFV be.first-vl give daAl INDF-NC.sG duck CFOC.3SG or a-b picc.... picc walla kanaara daal. Ci mala yooyu la indf-NC.SG bird bird or duck dall loc animal those cFoc.3sG daal.
DAAL
'Could be. But if you look, upon a first impression at least, it is a duck. Or a bird... a bird or a duck. In any case, it is one of those animals.' Dakar

In (12) Speaker B is reconsidering their claim that the animal on the picture is a duck. They admit it could also be a bird, but 'at least it is one of those animals'. In (13) the same picture is being described by two different speakers. While in (12) daal appears at the edge of a clause, as we have seen before, in (13) is appears between a verb and an object and after a connector. In (13) the speaker is struggling to describe the kind of store he is at. They don't know what the store is called, but they know that in any case rice and related items are sold there. In (13) the speaker uses daal after jaaye 'sell', when he says that they sell at least rice and another time after wànte, when he says he doesn't know what it is called, but in any case he is there.
(13) Maa-ngi ci wet-u fi ñu-y jaay-e... fi ñu-y jaay-e 1SG-PROG LOC side-REL where 3PL-IPFV sell-APPL where 3PL.s-IPFV sell-APPL
daal a-y... ceeb ak a-y mbir yooyu. Xawma nak nu DAAL INDF-NC.PL rice and thing those know.NEG.1SG NAK how 2PL ngeen ko-y wax-e wànte daal foofu laa nekk. 3SG.O-IPFV say-appl but dad there cFoc.1sG exist
'I am next to where they sell... where they at least sell... rice and stuff like that. I don't know how you call it, but in any case I am there.' Dakar

In (13) daal occurs twice: the first time in a relative clause fi nuy jaaye 'where they sell' and the second time with the connector waaye 'but'. ${ }^{1}$

Thus, (13) not only illustrates the 'at leat'-reading of daal, but furthermore shows that daal is more free than the other particles: like gaa, it can also occur between a verb and an object. It also shows daal occuring following the adversative connector wànte 'but'. Compare this to (14), which shows that the other particles, except for gaa, cannot occur in that position.
(14) Binta nop na *kat/*de/*kay/*nak/*ba/*moom/*naam/gaa Amadou.
B. love clfoc.3SG PRT

Intended: 'Binta loves Amadou.'
elicited

Moreover, in the examples (15)-(17) daal follows a focus. In (15) Speaker A is describing a picture and says it looks like chick. When speaker B asks what kind of chick, Speaker B says she doesn't know but it is in any case some kind of chick. Cuuc 'chick' is focused in the daal-utterance.
(15) A: Lu-y xaw-a niroo-k cuuc.
what-IPv be.almost-vL resemble-com chick 'This one almost looks like a chick.'

B: Cuuc? Cuuc-u l-an?
chick chick-GEN NC.SG-Q 'A chick? Of which bird?'
A: A! Cuuc daal la-y niroo-k, xam-u:ma cuuj-u. INTRJ chick DAAL OFOC.3SG-IPFV resemble-COM know-NEG:1SG chick-GEN 'Oh! It looks like a chick, I don't know of what.' Dakar

Likewise, in (16) the speaker is discussing the dilemma tale in which a child's estranged biological mother comes to take him back from the people who raised him. The speaker is explaining how the old man and woman have taken care of the child. In (16) they say that whatever other factors may play a role, the bottom line is that the parents, i.e.,

[^0]the old man and woman, want what is best for the child. (16) is a copular construction in which daal appears between the free relative clause li ñu si jublu 'what they lean towards' and the subject focus/copula mooy.
(16)
Ehh... l-i ñu si jublu daal moo-y
Interj nc.SG-REL.Prox
3PL.s Loc be.directed.towards DAAL SFOC.3SG-IPFV
jàppale xale b-i
help child nc.SG-DEF.Prox
'Ehhh... what they lean towards, in any case, is helping the child.' Dakar

In (17) the speaker wants to describe an animal, but cannot think of the Wolof word for it. He says that he at least knows the French word, which is escargot 'snail' and places daal after escargot, which is the object focus.
(17) Dama xam-ul nak moom mala boobu n-an la-ñ vFOC.1SG know-NEG.3SG NAK MOOM animal this NC.SG-Q CFOC-3PL
ko-y wax-e ci wolof, waaye escargot daal la-ñ ko-y wax 3SG.O-IPFV say-APPL LOC wolof but snail.FR DAAL CFOC-3PL 3SG.O-IPFV say ci tubaab. loc white.person
'I don't know how this animal is called in Wolof, but in French (i.e.,'white people's language') it's called 'escargot' (i.e., 'snail').'.' Dakar

Thus, we have seen that daal can get an 'in any case' interpretation in certain contexts. In Section 3.7 I show that this is the result of the speaker marking an incomplete answer as the final answer to the QUD. Furthermore, we have seen that daal is possible in the following positions: clause-finally, after the first element in a clause, clause-initially in an embedded clause, and after a verb.

### 3.5 Advice imperatives

This section shows the usage of daal in imperatives. Both the particles daal and de can combine with imperatives. While daal gives the imperative an advice flavor, de makes the imperative a warning. Imperative + de expresses a sense of urgency, i.e., the addressee is to follow the speaker's instructions immediately, imperative + daal on the other hand, has a feeling of 'softening' the imperative to an advice or recommendation. I tested this with the two scenarios in (18) and (19):
(18) Elicitation context: Your friend wants to cross the street, but there is a lot of traffic. You say:
A: Moytu-l de/ \#daal!
be.careful-IMP.SG DE DAAL
'Be careful!'
(19) Elicitation context: Your friend tells you a man has been following her around lately. You think he might be dangerous. You say:
A: Moytu-1 daal/ \#de!
be.careful-IMP.sG DE DAAL
'Be careful!' (advice)

In example(18), the addressee is not paying attention when the speaker wants them to pay attention, thus this is compatible with the 'warning' use of de, discussed in Chapter 7. Daal, on the other hand, is only compatible with advice imperative, as in (19). The example in (19) is compatible with the speaker concluding with 'in any case, just be careful' upon hearing a potentially dangerous situation.

### 3.6 Daal with other concluding elements

Finally, in this section I show some examples of daal occurring not at the right edge of the proposition that forms the conclusion, but of another linguistic element that signals that the conclusion is coming up. (20) illustrates the use of daal together with the connector kon. The context for (20) is that the speaker is saying what their solution to a riddle is. After having said what they think, they end their turn with (20).
(20) Kon daal, cax b-i daal... Kon loolu k-u ci
thus DAAL riddle NC.SG-DEF.PROX DAAL thus NC.SG.DEM NC.SG-REL LOC
xalaat rekk daal.
thought only DAAL
'Thus, the riddle... Thus, this is just what I think of it. ${ }^{\prime 2}$ Ndem
In (20) the speaker uses daal three times. First, after the connector kon 'thus', which itself also has a concluding function. Then once more after the topic cax bi 'the riddle', and then once more at the end of the utterance. In (21) daal occurs after the French phrase $\grave{A}$ mon avis 'in my opinion' and not, as we have seen so far, after the phrase which states the opinion itself.

[^1](21) À mon avis daal... il faut qu'on gëstu in.FR my.FR opinion.FR DAAL 3SG.M.FR have.to.FR that.3SG.FR research b-u baax bala ñu ko-y jox, quoi. NC.SG-REL be.good before 3PL.s 3SG.O-IPFV give what.FR 'So, in my opinion... they have to do their research well before they give him away.'

Dakar

The example in (22) shows a similar phenomenon, in which daal follows the French phrase en tout cas. Part of the conversation in (22) iss presented in Chapter 4. Speaker $B$ disagreed with Speaker A that the person in the picture was a guy and marked her utterance with sentence-final $d e$. Then Speaker A followed up with 'in any case, it is a person'. She used the French expression en tout cas and daal.
(22) A: Xanaa b-enn waay b-u tóóg, wan-e ginnaaw?

Q NC.sG-some guy NC.SG.-REL sit show-APPL back 'Is it not a guy who is sitting, shown from behind?'
B: Du waay de, jigéén la-y nirool.
NEG.3SG guy DE woman CFOC.3SG-IPFV resemble 'It ISN'T a guy, it looks like a woman.'

A: En tout cas daal nit la, xawma l-u mu in.FR any.FR case.FR DAAL person CFOC.3SG know.NEG.1SG NC.SG-REL 3SG.S doon.
PST
'In any case it is a person, I don't know what exactly.' Dakar
(23), from J. L. Diouf (2003), also illustrates the concluding environment daal occurs in. Here daal comes after the expression seet na ba seet which means something like 'in the end' or 'all things considered'.
(23) Seet na ba seet daal, n-ii moo gën. see CLFOC.3SG until see DAAL like.this-PROX 3SG.SFOC be.better 'All in all, it is better this way.' (J. L. Diouf 2003, p. 359)

Another example is given in (24), from Doomi Golo (B. B. Diop 2016), in which daal is used together with ci gàttal 'in brief'.
(24) Ci gàttal daal, Ustaas Mbay Lóo sagar-u nit la woon. LOC short DAAL U. M. L. rag-GEN person CFOC.3SG PST 'In brief, Mbaye Lô was some sort of a human wreck.' (official English translation from B. B. Diop (2016, p. 16))
'In brief, Ustaas Mbay Loo was a rag of a man.' (literal translation) (B. B. Diop 2003, p. 9)

Thus, the examples in this section have shown that daal does not necessarily take scope of the element to its left. In (23), for example, the speaker doesn't conclude the phrase 'in any case', but the phrase that follows. Rather, daal co-occurs with other linguistic elements that express the same meaning, such as 'in brief' in (24) or kon 'thus' in (20).

This concludes my exposition of the data containing the particle daal. I have grouped it in four related uses: i) daal following repetition, ii) daal in conclusions and iii) daal with an 'in any case' reading, iv) daal in imperatives with an advice reading. I have shown that daal can occur also occur with other linguistic expressions that convey a similar meaning.

### 3.7 QUD approach to daal

In this section I propose to analyse the contribution of daal in a QUD framework in the style of Roberts (1996). The proposal is that daal signals that the utterance containing daal is their final answer to an overarching question under discussion. Ultimately all questions in the discourse lead back to The Big Question: 'What is the way things are?' (Roberts 1996; Stalnaker 1978). Since this is too big to be answered at once, discourse participants make use of strategies of sub-questions. Sub-questions need to be well-formed in relation to the super-question. This well-formedness is based on entailment, as in (25).
(25) One interrogative $q_{1}$ entails another $q_{2}$ iff every proposition that answers $q_{1}$ answers $q_{2}$ as well.
(Groenendijk and Stokhof 1984, p. 16)
Thus, 'What do you like?' entails 'What food do you like?', in which the former is dubbed the super-question and the latter, entailed question the sub-question (Roberts 1996). The Big Question entails all possible sub-questions. The aim of discourse is to, through a strategy of sub-questions, ultimately answer the Big Question. The choice of the sub-questions is restricted by the domain goals of the speakers. A speaker's domain goals are their goals in the real world, i.e., what they want to achieve with engaging in a certain discourse. Thus, depending on what the speaker wants to find out, they will approach the Big Question differently. These domain goals thus restrict what the 'overarching question' at any given point of the discourse is. I propose that
daal signals that the utterance containing daal is their final answer to the super-question within a given domain, as in (26). The $\approx$ indicates the definition is informal.
(26) $\llbracket \operatorname{daal}(p) \rrbracket^{c} \approx$ The speaker $c_{S}$ considers $p$ their final answer to a super-question that i) dominates the daal sentence, and ii) is the root of a strategy.

To show how (26) applies to the examples shown in the previous section, I illustrate some examples with d-trees à la Büring (2003). I also follow Rojas-Esponda (2014) and Riester, Brunetti, and De Kuthy (2018) in making a distinction between sub-questions and follow-up questions. While sub-questions are questions that are entailed by their super-question, follow-up questions are questions asked after an answer is given in order to get a more specific or more complete answer (Rojas-Esponda 2014). Notationwise, sub-questions are daughters of a super-question and are all attached at the same level. Riester, Brunetti, and De Kuthy (2018) propose to attach follow-up questions to an answer as sisters to that answer. I also use Riester, Brunetti, and De Kuthy's convention for marking questions with Q and answers with A , with sub-scripted numbers indicating their order. Explicit questions are underlined, as in Büring (2003).

Now, let's take an example from daal occurring in repetition. For sentence (3), repeated here as (27) with additional context, the tree can be constructed as (28).
(27) a. 'I see a tree in it. I also see houses in it.'
b. Waaw, gis naa ci garab ak a-y kër daal.
yes see clfoc. 3 SG loc tree and indF-NC.Pl house daAl 'Yes, I see a tree and houses in it.'


In (28) the super-question of the current goal, and thus the root of the strategy, is 'What do you see in the picture?'. The speaker answers with one thing that they see: a tree. Then they follow-up saying they also see houses in it. The implicit follow-up question can be reconstructed as 'What else do you see?'. After that there is nothing new to be seen, so they conclude with 'a tree and houses'. Then the other discourse participant starts talking.

With 'concluding daal' from Section 3.3, the trees can get more elaborate. Consider again (7), repeated here as (29) with added context. The discussion topic for the conversation was 'What do you think of the coming elections?'
(29) a. 'The signatures pose a problem, because there are people signing left and right, in the end you don't even understand. There are those who pay money for their signatures. All those things you have around here.'
b. Moo tax ma xam ni [daal, élection y-i di SFOC.3SG cause 1SG.s know comp dall election nc.pl-def.prof ipfv ñew, bu si Yàlla def-ul sutura daal moom, mën na come if loc God make-neg.3sG respect dall moom can clfoc.3sG am safaan].
have woe
'That's why I know that, as for the coming elections, if God does not help us there could be problems.'

Thiès

(30)


In (30) the super-question is answered through first answering a smaller sub-question about the signature system. This serves as an argument for ultimately answering the super-question with 'There could be problems' and this utterance is marked with daal. Crucially, daal does not appear on any of the answers to the smaller sub-questions, such as 'The signature system poses problems', 'People don't think about what they sign' and 'People pay money for signatures'. Daal only appears when the speaker revisits the super-question after giving an argument for their conclusion by answering the sub-questions about the signature system first. I predict that daal should be infelicitous in the answers to those sub-questions. What I cannot predict at this point, however, is
where exactly daal will attach in a complex sentence. In (30), it is the second clause, 'there could be problems', that is the actual conclusion. However, daal attaches at the right edge of the first clause, 'if God does not help us'. A similar thing happens with the examples described in Section 3.6. There daal doesn't attach to the actual conclusion, but to a linguistic element that preludes the conclusion, such as the connector kon 'thus' in (20) or the prepositional phrase ci gàttal 'in brief' in (24). It seems that daal needs to be in the sentence that is taken to be final answer to the super-question, but that it doesn't matter where it is placed exactly. In Chapter 10 we will see that daal can also occur after topics without any meaning difference.

Turning to the 'in any case'-reading of daal, I propose that this is an implicature that arises whenever the final answer to the super-question is not the complete, or most detailed answer. An example from Section 3.4, (12), is shown here as (31).
(31) A-b kanaara la walla... ab picc-picc walla kanaara INDF-NC.SG duck CFOC.3SG or indF-NC.SG bird or duck daal. Ci mala yooyu la daal. dAAL LOC animal NC.PL.DEM CFOC. 3 SG DAAL 'it is a duck or... a bird or a duck. In any case it is one of those animals.' Dakar The d-tree for (31) is given in (32).

(32)
$\mathrm{A}_{2}$ : A duck or a chick daal. It is ONE OF THOSE ANIMALS daal.

In (32) the speaker initially answers the super-question with 'a duck'. However, she is then challenged by the interlocutor, who implies that it could also be something else. The speaker reconsiders and says that it could also be a chick, and now cannot settle the super-question anymore, as there are two possible answers. She settles with 'it is either a chick or a duck, it is one of those animals'. The speaker uses daal after each clause to signal that that is her final answer to the current super-question 'What do you see in the picture?'. However, unlike in (28), where there were multiple objects in the
picture, in (32) there is only one object in the picture and thus the speaker hasn't given a complete answer to the overarching question. Whereas in (28) the final answer was the complete answer, in (32) it is an incomplete answer, but adhering to the Maxim of Quality (Grice 1975) 'it is one of those animals, either a chick or a duck' is all that the speaker can truthfully say at that point.

After Speaker A has said (31), Speaker B continues by saying that it doesn't have to be either a duck or a chick, but that it could also be a snail. This was example (17), repeated here as (33).
(33) Dama xam-ul nak moom mala boobu n-an la-ñ vFOC.1SG know-NEG.3SG NAK MOOM animal this NC.SG-Q CFOC-3PL
ko-y wax-e ci wolof, waaye escargot daal la-ñ ko-y wax 3SG.O-IPFV say-APPL LOC wolof but snail.FR DAAL CFOC-3PL 3SG.O-IPFV say ci tubaab. Loc white.person
'I don't know how this animal is called in Wolof, but in French (i.e., 'white people's language') at least it's called 'escargot' (i.e., 'snail').'.' Dakar

The tree for (33) is given in (34).


Again, in (34), the speaker returns to the super-question 'What do you see in the picture?' with the final answer and settles it with 'it is an escargot'. This is not a complete answer to the question, as the discussion was in Wolof, and he wanted to answer the question in Wolof, but couldn't think of the Wolof word for 'escargot'. Thus, again in (34) the speaker is not in a position to say more than 'it is an escargot' and chooses to settle the question of 'What do you see in the picture?' with an incomplete answer.

Thus, I predict that daal should be infelicitous i) out of the blue and ii) in an answer that directly settles the super-question with no intermediate moves. This is similar to the condition for German überhaupt proposed by Rojas-Esponda (2014). According
to Rojas-Esponda (2014) überhaupt is only felicitous when answering a sequence of questions and using überhaupt signals that the speaker returns to the super-ordinate question. This is illustrated with an example in (35).
(35) A: Möchte-st du ein Glas Wein? want.SBJV.PST-2SG 2SG.NOM INDF.N.ACC glass wine 'Do you want a glass of wine?'
B: Nein, Danke.
'No, thank you.'
A: Hätte-st du gerne ein Bier? have.sbjv.Pst-2SG 2SG.NOM gladly indf.n.Acc beer 'Would you like a beer?'
B: Nein. Ich möchte (\#überhaupt) kein Bier. no 1SG.NOM want.sbJv.PST.1SG ÜBERHAUPT no.N.ACC beer 'No, I don't want beer'
$B^{\prime}$ : Nein. Ich trinke überhaupt kein-en Alkohol. no ISG.nOM drink Überhaupt no-m.acc alcohol 'No, I don't drink any alcohol at all.' German (Rojas-Esponda 2014, 1:8)

In the final utterance in (35) it is shown that überhaupt is only felicitous i) after a series of sub-questions and ii) in the answer that addresses the super-question, which according to Rojas-Esponda (2014) is 'What alcoholic beverage do you want to drink?' and not a sub-question such as 'Do you want beer?' However, unlike daal, which marks a return to the super-question with a final answer to that question, überhaupt can be used in order to express doubt in whether the super-question even has an answer, such as in (35), where the super-question's presupposition - that the addressee wants an alcoholic beverage - is denied. Überhaupt can also be used to answer all possible sub-questions in one swoop. In Section 3.8 I show that the pragmatics of daal are more similar to some uses of English so.

Returning to the predictions about daal, recall that the speaker who produced the daal-utterance (4) commented that (4) cannot be used to start a discourse with. Indeed, none of the daal sentences shown in this chapter were produced as a first answer to a question, or out of the blue. Furthermore, the imperatives in Section 3.5 have illustrated that daal is infelicitous with a command imperative. Example (18) is repeated here as (36).
(36) Elicited context: Your friend wants to cross the street, but there is a lot of traffic. You say:

```
A: Moytu-l #daal!
be.careful-IMP DAAL
'Be careful!' (warning)
```

It follows from my predictions that daal is infelicitous in (36): in (36) is because there is no previous discourse addressing a super-question 'Should you cross the street now?'. When there is previous discourse prior to an imperative, daal can be used, and it was shown that the imperative with daal is felicitous in the context of (19), repeated here as (37).
(37) Elicited context: Your friend tells you a man has been following her around lately. You think he might be dangerous. You say:

```
A: Moytu-1 daal!
    be.careful-IMP.sG DAAL
    'Be careful!'
```

        (advice)
    In (37) the daal-utterance signals that 'be careful' is the speaker's final answer to the question 'What should friend $X$ do?', leading to (37) being interpreted as an advice rather than a command. Thus, the difference between the use of daal in imperatives denoting advice and warning follows from the analysis of daal presented in this section.

In the next section I compare daal to the English discourse marker so and so has a similar 'concluding' function to daal.

### 3.8 Comparison to English so

In this section I compare daal to another discourse marker which has been said to mark conclusions: English so. According to Van Dijk (1979) the discourse marker so prototypically introduces the speech act of 'drawing a conclusion', as shown in (38).
(38) John is sick. So, let's start.
(Van Dijk 1979, p. 453)
(38) can be paraphrased as 'Since John is sick, let's start (without him)'. The second sentence is the conclusion that can be drawn from the first. According to Müller (2005) so can have multiple discourse marking functions related to the prototypical meaning of 'drawing a conclusion' in (38). Some of these discourse marking functions which are shared with daal are: "marking result or consequence, main idea unit marker, summarizing / rewording / giving an example, sequential so and boundary marker" (Müller 2005, p. 68). For example, so can introduce a segment that sums up the prior
discourse. While this is related to 'conclusive' so in (38), the difference is that in introducing a summary the speaker does not posit a new claim based on the prior context but rather restates the main argument(s) that can be distilled from the prior discourse in more general terms, allowing the speaker to round off a stretch of speech. Schiffrin (1987, p. 198) refers to so-utterances as "closing the answer", i.e., like daal it signals that the speaker is finished answering the question. An of the summarizing use of so, which is similar to daal, is (39). In (39) the speaker has been explaining what they like about The Big Lebowski and summarizes it with so.
(39) So that's what I really like about... movies like that it's.... kinda like... Pulp Fiction and having not a real story.
(Buysse 2012, p. 15)
The use of so in (39) is similar to daal, as the speaker has already listed what they like about the movie.

These uses of so are boiled down by Schiffrin (1987, p. 191) as signaling important parts of speech (e.g. a result, a conclusion, a return to the main thread of a conversation). She calls so a 'marker of main idea units'. Another example of so is given in (40). About (40) Schiffrin (1987) says that the speaker starts by saying her opinion, then gives arguments for it, which I elided in (39) and then restates her opinion with so. The utterance marked with because contains the subordinate information, and the utterance marked with so contains the main information.
(40) But uh I don't think too highly of him, because [...] So i really lost a lot of respect for him.

English, (Schiffrin 1987, pp. 131-132)
Thus, daal and discourse-marking so can both be used as main idea unit markers, in order to summarize, and in order to mark the end of a turn. Discourse-marking functions that so has that I have not seen with daal are marking a result or consequence and 'sequential so'. 'Marking a consequence' is the function that was shown in (38) and is illustrated with another example in (41).
(41) The sea were ... uh .. or was uh very rocky, so um all people get um... seasick. (Müller 2005, p. 72)

In (41) the speaker uses so to mark that the fact that the people got seasick was a direct consequence of the boat being rocky. Sequential so is used to mark a transition between two events in a narrative, such as in (42).
(42) All of them get up and leave, like arm in arm, $\mathrm{an}^{\prime}$.... the artist says it was nice meeting you, so- it's raining outside. So, they go around the corner, and there's a big s- door.
(Müller 2005, p. 79)
A way in which daal can be used and so cannot, is the 'in any case' reading shown in Section 3.4.

Finally, there also seems to be variation in the way daal is used among different speakers. This is discussed in the next section.

### 3.9 Variation in the use of daal

Multiple people have pointed out to me that the use of daal is considered informal, or youth language. Even more so than the other SFPs, which are also colloquial. Mbacké Diagne (p.c.) pointed out that it seems that younger people are using daal in a different way from older speakers. I have some examples that corroborate this, but more research is needed.

First I look at some examples of traditional folk stories. All instances of daal in the story Lutax am jigeeni Ngor ñu dul am jëkkër 'Why the women of Ngor don't have husbands' are of daal in second position, rather than sentence-final. Consider (43), which is the second to last sentence of this story:
(43) Mbeex daal noonu la jàpp-oo ba baay ñibbi àllaaxira M. dat like.this 3sG.cfoc take-copart until father return beyond 'Mbeex continua ainsi jusqu'à ce que son père rejoigne Allah.'
'Mbeex continued like this until her father passed away.' (Kesteloot and Mbodj 1983, p. 255)

In (43), as it is almost the end of the story, and it tells how the main character Mbeex ends up, it is compatible with a concluding meaning. (44), from the story Kuss-Kondoron $b i$, is also compatible with the uses of daal we have seen so far, as it follows repetition of the phrase dig guddi 'midnight'.
(44) Xam naa waxtu dig guddi jot, dig guddi daal booba know clfoc.1sG hour middle night arrive middle night dadl that dina wara jot; li ñuy wax Kondorong fekk ko foofu. fut. 3 SG must-vl arrive that 3 Pl-IPFV call Kondorong find 3 SG there 'Vers le milieu de la nuit, je pense, oui, à ce moment il devait etre minuit, ce que l'on appelle Kondorong l'y trouva.
'Towards the middle of the night, I think, yes, at that time it must have midnight, what is called Kondorong found him there.' (Kesteloot and Mbodj 1983, p. 239)

However, in (45), from the same story, in which daal occurs after mii ndox 'this water', this is not the case.
(45) Aaa! M-ii ndox daal gëj na koo taw ci nguur-ag INTERJ NC-PROX.DEM water daal be.a.while 3SG.PFV 3SG.O rain Loc reign-NC.SG Mbaaboury
M.
'Haaa! On n'a pas eu une telle pluie depuis le règne de Mbaaboury.' 'Aah!
THIS water, it's been a since the reign of Mbaaboury that it rained.' (Kesteloot and Mbodj 1983, p. 239)

In (45) the daal-sentence is one of the first sentences in the story and the water has not been explicitly mentioned before. Thus, this is contrary to the prediction I have made in Section 3.7 about daal not occurring discourse-initially.

Second, looking at the occurrences of daal in my recordings, while daal is the most frequent particle in my recordings (see Chapter 11), almost all instances of daal are recorded in Dakar, Thiès and St. Louis (all urban areas). In a recording made between two older women and in a recording between two middle-aged men in Sanar Wolof, which is a more rural area, but still not far from the city, no instances of daal were found. In a recording made in Ndem, a village in the Diourbel area, there were only 4 instances of daal, all from the same man who often travels outside of the village. In a recording between two older women made in Mbour, a small town, the two women did not use daal. However, this recording contains one daal-utterance coming from a child who was sitting nearby and wanted to contribute to the discussion. The discussion was about what kind of food people used to eat back in the days, as opposed to today. The child weighs in on the kind of food that is eaten today:
(46) Soos, espageti, a-y firit, a-y suupukànja daal. sauce spaghetti INDF-NC.PL fries INDF-NC.PL suupukànja DAAL 'Sauce, spaghetti, fries and suupukànja.'
child, Mbour
The older woman made a similar summary earlier in the discussion, but did not use daal:
(47) Waaye léégi a-y ceeb la-ñu-y lekk. A-y maafe, but now INDF-NC.PL rice CFOC-3PL-IPFV eat INDF-NC.PL maafe a-y domodaa, a-y soos... INDF-NC.PL domodaa INDF-NC.PL sauce 'But now we eat rice, maafe, domodaa, sauce...' older woman, Mbour

Thus, it could be the case daal is i) more frequently used by younger/urban speakers and also ii) differently used by younger/urban speakers. A systematic investigation on the possible variation in the use of daal awaits future research.

Finally, there is no mention of a particle daal in the old Wolof grammars, Boilat (1858), Dard (1826), Kobès (1869), and Rambaud (1903). However, Dard (1826, p. 98) does list a particle dâle as meaning 'only'. To my knowledge, there is no synchronic similar word in Wolof which means 'only'.

### 3.10 Summary

I have shown that daal occurs in repetitions, conclusions, advice imperatives and that it can have an 'in any case' interpretation. I have proposed to unify these uses as the result of daal signaling that the speaker wants to give their final answer to an overarching question under discussion, as in (48).
(48) $\llbracket \operatorname{daal}(p) \rrbracket^{c} \approx$ The speaker $c_{S}$ considers $p$ their final answer to a super-question that i) dominates the daal sentence, and ii) is the root of a strategy

This means that there has to have been previous discussion of the super-question in order for daal to be felicitous. This was borne out with the occurrence of daal in imperatives: while daal is felicitous in an imperative that follows from ongoing discourse and thus has an 'advice' flavor, it is not felicitous in a command imperative that is uttered out of the blue and has a 'warning' flavor. The use of daal is similar to the way so is used as a discourse marker in English: so marks the speaker's main point and thus can signal a summary, conclusion or the end of a turn. One way in which daal differs from English so, is that so doesn't have the 'in any case' reading. This interpretation of daal occurs when a speaker marks an incomplete answer as a final answer to the super-question. In those cases, the speaker is unable to both stay truthful and give a complete answer to the question, and thus marks the incomplete answer as their final answer, resulting in an 'in any case' interpretation. Finally, the particle daal is frequent in modern/Urban Wolof.

## 4 Particles in verum contexts

This chapter concerns the particles which occur in verum contexts. The particles in question are kay, kañ, de, gaa, kat and moos. I group these particles together because they all occur in verum contexts; nonetheless, I claim that they do not form a homogeneous group. Contrary to bona fide verum particles, such as the ones presented in Gutzmann, Hartmann, and Matthewson (2020), which only and always mark verum, the particles kat, kay and gaa have properties of response particles in addition to realizing verum. Thus, I use the term 'verum particle' descriptively, to indicate their occurrence in verum contexts, but I will show that these particles i) also have additional functions and ii) do not mark verum across clause-types, but only in declaratives. Out of the three particles kat, kay and gaa, gaa behaves the most like a response particle, as it is the only one that can occur standalone. The other particles are confined to the second or clause-final position. The data presented here concern the particles in the clause-final position, hence I refer to them as sentence-final particles (SFPs). Data of these particles in second position (i.e., following a topic) is presented in Chapters 9 for de and 10 for kay, kat and gaa.

The distribution of the particles in verum contexts depends on (dis)agreement, i.e., Wolof uses different particles to mark verum depending on whether the verummarked proposition is identical to of the target proposition or the negation of the target proposition. For illustration, an example is shown in (1) (more details in Sections 4.2-4.4).
(1) A: Today Fatou looks good.'

B: (Déédéét,) rafet-ul de/ kat/ *kay/ *gaa.
no be.pretty-NEG.3SG DE KAT KAY GAA
'(No,) she DOESN'T look good.' negative + disagreement
$B^{\prime}$ : (Waaw,) rafet na ?de/ *kat/ kay/ gaa.
yes be.pretty 3sG.clfoc de KAT KAY gaA
'(Yes,) she DOES look good.'
positive + agreement
(2) A: 'Today Fatou doesn't look good.'

```
B: (Waaw,) rafet-ul ?de/ *kat/ kay/ gaa.
    yes pretty-NEG.3SG DE KAT KAY GAA
    '(Indeed,) she DOESN'T look good.' negative + agreement
B': (Anxkay,) rafet na de/ kat/ kay/ *gaa!
yes.REv be.pretty 3SG.CLFOC DE KAT KAY GAA
'(Yes), she DOES look good!' positive + disagreement
```

While kay and gaa are agreement particles, kat is a disagreement particle. I propose that gaa and kay have the same semantics, but that their differences are in terms of their syntactic requirements and what they can target (and also in their sociolinguistic distribution). The particle $k a n ̃$ is a variant of kay. Henceforth, when I talk about kay, this includes kañ as well. Moos has a similar distribution to kay, but has an additional 'of course'-flavour. Since my data on moos is limited, I do not attempt to give a detailed analysis.

Their occurrence in verum contexts is what these particles have in common, but the following three chapters explore their differences. By considering other types of contexts the verum particles can occur in, it is shown that only agreement verum particles are felicitous in concessions and only disagreement verum particles are felicitous in surprise contexts. The English marking of verum, namely do-insertion with a focal accent, is unspecified for agreement and disagreement. Chapter 6 elaborates on the usage of $d e$ and kat in surprise contexts. The particle de, since it occurs in more environments that are not considered verum contexts, such as intensification, imperatives and subjective assertions, is only considered in the data description of this Chapter, but is not given an analysis yet. In Chapter 7 de is analyzed as an intensifier that can operate on either a lexical or a pragmatic level, explaining its occurrence in verum contexts. Chapter 8 goes into the concessive use of gaa. The distribution of the particles de, kat, kay and gaa across semantic domains is visualized in (3).
(3)


This Chapter focuses on the contexts in which all six particles occur, namely the verum contexts. I give a preliminary definition of verum and what I understand to be verum contexts in Section 4.1. (In Chapter 5 I revisit the definition of verum given in Section 4.1 and discuss how the Wolof data and the contexts shown in Section 4.1 can inform the theory of verum.) In Section 4.2 I present data with the particles kay, kañ, de, gaa and kat. The data on moos are given separately in 4.2.4, as I don't have sufficient data on this particle to make a comparison with the others. In Section 4.3 I show that the particles from Section 4.2 have a distribution comparable to that of response particles and I propose a response particle-based analysis for them in Section 4.4. In this section I also propose that these particles do not contribute the verum operator themselves, but that in Wolof a covert verum operator has to be 'made visible' by other linguistic elements, which these particles can do provided their requirement on the context is met. In Section 4.5 I illustrate sociolinguistic factors that influence the distribution of the particles and show that kañ is a variant of kay. In Section 4.6 I propose two possible directions for future research, namely the interaction of the sentence-final particles with response particles and contexts in which speakers answer to ' $p$ or $\neg p^{\prime}$ questions.

### 4.1 Background on verum and verum contexts

In this section I introduce a preliminary definition of verum and give examples of what have been labeled in the literature as verum contexts. The introduction given here should be enough to follow the data presented in this chapter. A more in depth discussion of verum theories can be found in the next chapter.

What is currently known as 'verum focus' was first called polarity focus by Halliday (1967). Dik and Van der Hulst (1981) called it 'polar focus' and Watters (1979) further
differentiated 'counter-assertive focus' as a sub-type of polar focus, being the first to make this distinction. We will see that this distinction is relevant in Wolof in Section 4.2. The first one to use the term 'verum focus', (Höhle 1992), considered it to be focus on the truth of an utterance, which is realized as a focal accent on the finite verb in German. An example of verum in English is presented in (4).
(4) A: I cannot imagine that Peter kicked the dog.

B: Peter DID kick the dog
English
(Gutzmann, Hartmann, and Matthewson 2017, p. 4)
In (4) B's utterance contains do-insertion and the focal accent falls on the auxiliary do; this is the hallmark of verum in English. According to Höhle (1992) verum is realized by focusing an operator VERUM, which is present in every sentence and which has the meaning 'it is true that'.

However, this definition of verum is too general, as every time a speaker asserts something, they believe it to be true. Thus, (4) predicts verum to be felicitous in any assertion, which means that it is both trivial and it doesn't capture the fact verum marking is only felicitous in specific contexts. Gutzmann and Castroviejo Miró (2011) have proposed that the felicity of verum should be formalized in terms of its discourse conditions. I do not go into the details of their analysis here, but revisit this issue in Chapter 5. As I ultimately adopt Gutzmann and Castroviejo Miró's thesis that verum is not a sub-type of focus, at least not in Wolof, in the remainder of this chapter I use the term 'verum' rather than 'verum focus'.

Gutzmann, Hartmann, and Matthewson (2017) give a list of verum contexts, which I will present and expand on below. These contexts will then serve as diagnostics for verum expressions in Wolof. I consider something related to a verum expression if it is only felicitous in a verum context and infelicitous in a context in which verum is impossible. In the list below I have collected specific contexts that license verum. I have divided verum in declaratives in i) answers to questions, ii) disagreement and iii) emphatic agreement.

1. Verum in answers to questions.
a) Answer to a ' $p$ or $\neg p^{\prime}$ question, in which one out of two overt alternatives is picked out, e.g., (5):
(5) A: I forgot: are you coming tonight or are you not coming?

B: I AM coming.

B': I am NOT coming.
b) Answer to a biased question, e.g., (6):
(6) A: You don't sing, right?

B: I DO sing.
c) 'Because p' answer to 'why p' question as in (7):
(7) A: Why do you say that morphemes are a part of syntax?

B: Because they ARE a part of syntax.
(7) can be seen as a special type of biased question. B interprets A's question as implying that $p$ 'morphemes are a part of syntax' is not true.
2. Disagreement verum
a) Counter-assertions, e.g., (8):
(8) A: Marc is not coming tonight.

B: He IS coming.
b) Disagreement with an implicature, e.g., (9) and (10)
(9) A: David smells like a zombie.

B: I think he IS indeed a zombie
(Gutzmann and Castroviejo Miró 2011, p. 150)

In (9) A says that David smells like a zombie, but does not make the stronger statement that he is a zombie. The implicature is thus that David is not a zombie, otherwise A would have said so, per the Maxim of Quantity (Grice 1975). B targets the implicature 'David is not a zombie' and disagrees with it. Counterfactual conditionals can also be seen as introducing implicatures (Iatridou 2000). The implicature introduced by the counterfactual in (10) is 'Peter is not a philosopher'. Again B disagrees with it.
(10) a. Back in the days, Peter always talked as if he had been a philosopher.
b. Peter WAS a philosopher (Gutzmann and Castroviejo Miró 2011, p. 149)

Two more examples are given in (11) and (12). In (11) it is implied that doctors who are not good don't have a lot of patients. In (12) it is implied that if we have no control over X, we also don't have control over Y.
(11) Dr. Smith isn't a very good doctor, but he DOES have a lot of PATIENTS.
(Wilder 2013, p. 156)
(12) The truth is, we have no control over it. But what you DO have control of is how you react.

COCA (Davies 2008)

In some cases, there can be two possible implicatures. The A and B utterances in (13) are from Samko (2016), in which B targets the implicature that they didn't catch the guy. If A knew that they did catch him, A would have said so, per the Maxim of Quantity. However, I asked for felicity judgments for $\mathrm{B}^{\prime}$ with English speakers, and B' was also judged felicitous.
(13) A: They think they've caught the guy.

B: They DID catch the guy.
(Samko 2016, p. 120)
B': They DIDN'T catch the guy.

The same can be seen in (14) and (15).
(14) A: If Mary is on your team, you will win.

B: Mary IS on my team.
(15) A: If Mary is on your team, you will win.

B: Mary is NOT on my team.

It seems that in (14) the implicature drawn from the conditional is that Mary isn't on B's team, since if A knew that she was, they wouldn't have used a conditional. However, in (15), it seems that the 'if'-clause is rather interpreted as a 'since'-clause.
3. Emphatic agreement
a) Agreement with subjective assertions, e.g., (16):
(16) A: Muriel is a great cook.

B: She IS a great cook.
b) Agreement with a proposition the speaker has forgotten about, (17), or could have known, but did not think about, (18).
(17) A: He hit a career-long 53-yarder against Washington.

B: (That's right.) He DID hit a career-long 53-yarder against Washington.
(Samko 2014,
p. 8)

Samko (2016) claims that in (17) speaker B has forgotten about the event.
(18) I hadn't really thought of this too much before either, but you are right. It IS bullshit.

COCA (Davies 2008)
c) Agreement in the antecedent of a concession, e.g., (19) and (20):
(19) A: Is he a good candidate? Does he work hard?

B: (Yes,) he DOES work hard, but his results are miserable... (Wilder 2013, p. 169)

While verum is infelicitous in answers to neutral polar question, it can be made felicitous if the answer to the question is the antecedent clause of a concession. (20) shows that verum is licensed in a concessive regardless of whether it is answer to an overt question.
(20) I can not accept that good enough is good enough for the learners whom I teach. I want my learners to know that sometimes good enough DOES work, but that some information tasks require greater energy.
4. Verum in questions
a) Cornering question
(21) A: Charles lives in Seville.

B: That's not true. He lives in Granada.
C: So where DOES Charles live?
(Kocher 2018, p. 11)

Verum in questions can be used when the speaker wants to get a true answer after several alternatives have already been put on the table. This effect of a question pressing the addressee to answer is referred to the cornering effect by Biezma (2009).
b) Double-checking question
(22) A: Peter claims that Wiesbaden is the capital of Hessen.

B: Well, IS Wiesbaden the capital of Hessen? (Gutzmann and Castroviejo Miró 2011, p. 162)

Verum in polar questions can be used to double-check a previous statement.
5. Verum in imperatives
(23) A: John, please grab a chair.

B: (no reaction)
A: Darling, would you please grab a chair?
B: (no reaction)
A: GRAB a chair at once!
(Gutzmann 2012, p. 31)
Verum in imperatives can be used after the addressee has failed to execute the command the first time.

Furthermore, we can also identify contexts in which verum is explicitly ruled out, namely:

1. Discourse-initially, e.g., (24):
(24) A: What's happening?

B: \#The children ARE petting a goat.
2. Answer to a neutral question, e.g. (25):
(25) A: I have no idea who is coming to the party tonight. Is Erlinde coming?

## B: \#She IS coming.

3. Answer to a constituent questions, e.g. (26):
(26) A: Who did the groceries?

B: \#James DID do the groceries.
4. Agreement with presupposition
(27) A: Mary got married again.

B: \#Yes, she WAS married before.
(Matthewson 2020, p. 24)

According to Matthewson (2020), since presuppositions are already in the common ground, they are not under discussion and thus cannot be targeted by verum.

These are the contexts which I identify as verum contexts. However, some of these contexts I have only considered post-hoc. Thus, I did not use all of these contexts in my survey presented in the next section.

As for definitions of verum that have been given on the basis of such contexts: any verum context is, among other conditions, one in which the content of the sentence with verum is already salient. The definition of a verum context given by Gutzmann, Hartmann, and Matthewson (2017) is 'when the truth value of an utterance is at stake [...] these contexts van be of positive, negative, and uncertain polarity' (Gutzmann, Hartmann, and Matthewson 2017, p. 15). Another way they characterize verum contexts is that there needs to be controversy in the question under discussion and that verum marking indicates wanting to settle that controversy.

### 4.2 Verum in Wolof

In this section I show various examples of the particles kay, kat, gaa, kañ, de and moos occurring in verum contexts. In Section 4.2.1 I show data and generalizations from previous literature. In Section 4.2.2 I show naturalistic data from my recordings and from the novel Doomi Golo (B. B. Diop 2003)n. In Section 4.2.3 I show elicited examples that point to the following generalizations: the distribution of the particles de, kay, kat and gaa depends on i) agreement with the previous utterance and ii) polarity of the anchor clause, i.e., the clause the particle occurs in. In Section 4.4 I explain these generalizations by analyzing these particles as having properties of response particles.

Since my data on the particle moos are limited, I give all the examples with this particles separately in Section 4.2.4

### 4.2.1 Previous literature

The particles discussed in this chapter have been referred to as 'contrastive' in J. L. Diouf (2001) and 'emphatic' in Torrence (2013a). Examples from Torrence (2013a) with gaa, kay (spelled as kaay in Torrence (2013a)) and de are presented in (28).
(28) a. Gis naa gaa xaj b-i.
see clfoc.1sG gat dog nc.sG-def.prox 'I indeed SAW the dog.'
b. Gis naa xaj b-i gaa.
see clfoc.1sg dog nc.sG-def.prox gai 'See the dog I did indeed.'
c. Gis naa xaj b-i kaay.
see 1sG.Clfoc dog nc.sG-DEf.Prox Kay
'I DID see the dog.'
d. Gis naa xaj b-i de.
see 1sG.clfoc dog nc.SG-def.prox de
'In fact, I saw the dog', 'I actually saw the dog.' (Torrence 2013a, p. 85)
Though the examples in (28) are given out of context, the translations that Torrence provides indicate that gaa, being translated as 'indeed' in (28-a) and (28-b), expresses agreement. (28-a) additionally shows that gaa can occur between verb and object, unlike the other particles. Kay in (28-c) is translated with a verum focus accent and de in (28-d) is translated with 'in fact' and 'actually', which points to a correction.

Faal (2017) lists the particles under adverbs and connectors in her grammar, but doesn't go into detail on their meaning. Faye (2012) does not analyze them, though he does give examples of the usage of kay and de. Examples from his grammar are shown in (29)-(32).
(29) A: Ndax dinga-y saqat?

Q FUT.2SG-IPFV cough
'Are you coughing?'
B: Déédééd, du-ma-y saqat de.
no NEG-1sG-IPFV cough DE
'No, I don't cough at all.'
(30) A: Maalik laa soxla-woon de. Ndax mu-ngi fi? M. CFOC.ISG need PST-DE Q 3SG-PROG here 'I really need to see Malick, is he here?'
B: Maalik nekku fi de.
M. exist-NEG.3sG here DE
'Malick isn't here.'
(Faye 2012, p. 126)

In (30) and (29) the particle de is used in a negative response to a polar question. In (31) and (32) the particle kay is used in response to a biased polar question.
(31) a. Waay, k-ii du Maalik?

INTRJ NC.SG-DEF.PROX NEG.3SG M.
'Say, isn't that Malick?'
B: Man la kay.
1SG.EMPH 3SG.CFOC KAY
'It's me alright.'
(Faye 2012, p. 118)
(32) A: Mbaa du yàgg?

Q NEG.3SG last.long
'It will not take long, right?
B: Dina yàgg kay.
FUT.3SG last.long KAY
‘It WILL take long.
(Faye 2012, p. 131)

These particles also occur in the dictionaries by J. L. Diouf (2003) and Munro and Gaye (1997). J. L. Diouf's (2003, p. 8o) dictionary translates gaa as both 'certes' and 'certainment', which can be both translated as 'certainly' in English, although the former has a concessive flavour which the latter lacks (see Chapter 8 for more details). He translates both de (p. 47) and kay (p. 123) as 'vraiment' ('really'), but he does note that kay is an antonym of de. Kay 'suggests the truth of the following sentence' according to Munro and Gaye (1997, p. 90) and Munro and Gaye (1997, p. 89) describe kat as 'show[ing] a new deduction or observation on the part of the speaker'. However, both Munro and Gaye (1997) and J. L. Diouf (2003) only list kat as a second position particle and not as a sentence-final particle. The exact nature of the semantic differences between particles in second and final position, is left for Chapter 9. Neither dictionary lists kañ as a particle in Wolof. In Section 4.5 I propose that kañ is a variant of kay. J. L. Diouf (2003, p. 160) translates moos as 'assurément' ('certainly') and gives the example in (33).
(33) Wax-u-ma ko moos.
say-NEG-1SG 3SG.O MOOS
'Assurément je ne l'ai pas dit.'
'Certainly, I did not say it.'
(J. L. Diouf 2003, p. 160)

### 4.2.2 Naturalistic data

This subsection contains examples of the particles de, kay, kañ and kat occurring in contexts that have been identified as verum contexts in Section 4.1. The data are both from recordings and from what I remembered from conversations, as well as from the novel Doomi Golo (B. B. Diop 2003). Examples (34)-(43) illustrate the use of de, (44)-(47) kay, (48)-(50) kañ and (51) and (52) kat. I do not have any naturally occurring examples of gaa and moos in a verum context.
(34) A: Dëkk b-a, dafa sori? village NC-DIST VFOC.3SG be.far 'The village, is it far?'
B: Sori-wul noonu de! be.far-NEG.3sG like.this DE 'Like this it ISN'T far!'

Mbour
(34) is a negative response to a polar question. In (34) B has explained that there are busses going to the village nowadays, whereas in the old days you had to go by horse. When asked if the village is far away, she says that it isn't far as long as you take the bus.

A: B-enn k-i... b-u fa nekk, b-u xam NC.SG-some NC.SG-Def.prox nc.sG-rel there exist nc.sG-rel know nga ci... nekk-u-ñu a-y jullit, foofu la-ñu julli, 2SG.clfoc loc exist-Neg-3pl indf-Nc.pl believer there cfoc-3pl pray na-ñu tudd-e ko 'église', mu-ngi foofu ci kote CLFOC-3PL call-APPL 3SG.O church.FR 3SG-PROG there LOC side.FR b-i.

## nC.SG-DEF.PROX

'Over there at the side there is a... where there is, you know, those who are not believerd (i.e., muslims), they pray there, they call it a 'church'.'
B: A-y jullit la-ñu de. A-y jullit la-ñu, mais INDF-NC.PL believer CFOC-3PL DE INDF-NC.PL believer CFOC-3PL but.FR
a-y jullit, ñoom, xam nga, ñoom, gëm-u-ñu
INDF-NC.PL believer 3PL.EMPH know 2SG.CLFOC 3PL.EMPH believe-NEG-3PL
Yalla.
Allah
'They ARE believers. They are believers, but they, you know, they don't
believe in Allah.'

In (35) B corrects A, who uses the word jullit in the sense 'Muslim', by saying that Christians are also considered jullit in the sense 'believer'. (35) is an example of counter-assertion.
(36) A: Loo gis?
what.2sG see
'What do you see?'
B: Picc laa gis.
bird cFoc.1SG see
'I see a bird.'
A: Picc? Ah, lutax nga ne picc?
bird INTRJ why 2 sG.s say bird
'A bird? Why do you say it's a bird?'
B: Picc la de.
bird cfoc.3SG DE 'It IS a bird.'
(36) is an answer to a biased 'why'-question. In (36) B first answers B's question with 'I see a bird', after which A double-checks by asking 'Why do you say it is a bird?'. Then $B$ again asserts that it is a bird. B uses $d e$ in her final utterance, since by double-checking A created debate about whether $p$ 'thing on the picture is a bird' should be added to the common ground, and according to B it should.
sky NC.SG-Def.Prox croc.3SG see-NEG:2SG 3SG.O
'It's the sky, you didn't see it.'
B: Nuage yeek yooyu, waaw asamaan s-i
cloud.fr nc.pl.Def.Prox.com nc.pl.Dem yes sky nc.sG-Def.prox la de.
CFOC. 3 SG DE
'The clouds and those other things, yes it IS the sky.' Dakar
In (37) B is describing an ambiguous picture. A reminds B that there is one thing she forgot to describe: the sky. B then agrees with A that that thing it is the sky. (37) is an
example of emphatic agreement in which the speaker could have known $p$ 'it is the sky', but didn't think about it.
(38) A: Xanaa b-enn waay b-u tóóg, wan-e ginnaaw?

Q nc.sG-some guy nc.sG.-Rel sit show-APPL back 'Is it not a guy who is sitting, shown from behind?'
B: Du waay de, jigéén la-y nirool. NEG.3SG guy DE woman cFoc.3SG-IPFV resemble 'It ISN'T a guy, it looks like a woman.'

Dakar
(38) is an answer to a biased question. A describes a picture and wonders if it is a guy sitting. B says it is not a guy, but a woman.
(39) A: Ah! Kanaara cuuc!

INTRJ duck chick
'Oh! A baby duck!'
B: Kanaara?
'A duck?'
A: Cuuc laa wax de, wax-u-ma kanaara ci bopp-am. chick cfoc.1sG say de say-Neg-1sG duck loc head-3sG.poss 'I said it was a CHICK, I didn't say it was a duck itself.'

Dakar
In (39) the speakers disagree on what is in the picture. Note that while there is controversy in the context about whether the animal in the picture is a duck or not, a verum accent is not compatible in the English translation of A's final utterance. This is revisited in Chapter 5.
(40) A: Waaw bakkan b-i di nit k-u tóóg di seentu yes nose nc.sG-Def.prox cor person nc.sG-rel sit ipfv see la c-a kanam
cFoc.3sG loc-dist front
'Yes, the nose is a person who is sitting and looking in front of him'
B: Du bakkan g-i de.
neg.3SG nose nC.SG-DEF.PROX DE
'It ISN'T a nose.'
(40) is an example of counter-assertion.
(41) A: Gis-oo ci bopp-u ursu?
see-neg.2sg loc hear-gen bear
'Don't you see the bear's head?'

B: Gis naa ci kaw de. B-enn ursu, l-u mel ni see CLFOC.1SG LOC top DE NC.SG-some bear NC.SG-REL resemble cOMP bopp-u ursu head-GEN bear
'I DO see it, at the top. A bear, something that looks like a bear's head.'
Dakar

In (41) B responds to a biased question.
(42) A: Dama xam-ul nak moom mala boobu n-an la-ñ VFOC.1SG know-NEG.3SG NAK MOOM animal this NC.SG-Q CFOC-3PL
ko-y wax-e ci wolof, waaye escargot daal la-ñ ko-y 3SG.O-IPFV say-APPL LOC wolof but snail.FR DAAL CFOC-3PL 3SG.O-IPFV wax ci tubaab
say Loc white.person
'I don't know what this animal is called in Wolof, but in French (lit: 'white people's language') it's called 'escargot' (i.e., 'snail').'
B: Cëy escargot dina am gémmeñ g-u gudd n-ii INTRJ snail.FR FUT.3SG have mouth NC.SG-REL be.long like.this.PROX cëy! Escargot? Du loolu de! INTRJ Snail.FR NEG.3SG NC.SG.DEM DE 'A snail? Seriously, would a snail have such a long mouth?! It ISN'T that!' Dakar

In (42) A proposes that the animal in the picture might be a snail, to which B disagrees.
(43) A: Góor g-i Aatu, xanaa yëg-oo l-i xew?
man NC.sG-DEF-Prox A. Q feel-NEG.2SG NC.SG-DEF.Prox happen
'Sir Aatu, did you not feel what happened?'
B: Yëg naa ko sax de!
feel ISG.CLFOC 3SG.O even DE
‘I DID even feel it!'
(B. B. Diop 2003, p. 112)

In (43) Aatu reacts to a biased question.
(44) A: Dëkk b-a neex na?
village NC.SG-DEM.DIST be.sweet CLFOC.3SG
'Is the village nice?'
B: Neex na kay!
be.sweet CLFOc.3SG KAY
'It sure IS nice!'
Mbour
(44) is emphatic agreement in response to a polar question. The emphatic agreement can be licensed because the assertion is subjective.
(45) A: Agsi nga ci kër g-i kon.
arrive clfoc. 2 SG LOC house NC.SG-DEF.PROX thus 'So, you have arrived in the house.'
B: Agsi naa, maa-ngi ci bunt b-i kay. arrive clfoc. 1 SG 1SG-PROG LOC door nc.sG-Def.prox kay 'Indeed, I have arrived, I am at the door.'

Dakar
The people in (45) are doing a map task. A concludes that $B$ has arrived at the house, but cannot be sure of this and B knows that A cannot be sure of this, thus B uses emphatic agreement in his confirmation. While the proposition that is being agreed with is agsi naa 'I have arrived', the speaker gives additional information and only places kay at the right edge of the whole sentence, rather than the first clause.
(46) A: Ndax loolu dëgg la? Man, loolu laa-y laaj.

Q NC.SG.DEM truth CFOC.3SG 1SG.EMPH NC.SG.DEM CFOC.1SG-IPFV ask
Ndax loolu dëgg la?
Q nc.sG.DEM truth CFOC.3SG
'Is that the truth? That's what I'm asking. Is that the truth?'
B: Loolu dëgg la kay.
that truth CFOC.3sG KAY
'That IS the truth.' Sanar
In (46) two older women have been talking about marriage. A gives examples of how married life for a woman can be very hard. Often the mother-in-law is mean to her and the husband prefers his second wife. She ends by saying that a woman only has her children she can count on, and asks B if that is really true, to which B emphatically agrees.
(47) A: Dafa rafet!
vFOc.3sG be.pretty
'It is cute!'
B: Dafa rafet kay!
vFOC.3SG be.pretty KAY
'It IS cute!'
Dakar
The people in (47) are talking about a pet rabbit. B emphatically agrees with A's subjective statement that the rabbit is cute.
(48) A: Doy na waar de!
be.enough 3SG.ClFOC be.weird DE 'It is really weird!'
B: Doy na waar kañ! be.enough 3SG.CLFOC be.weird KAÑ 'It IS weird indeed!' ${ }^{1}$

Dakar

B's utterance in (48) is also emphatic agreement to a subjective statement. Note that A's utterance contains $d e$. This is the intensifying use of $d e$ which is discussed in Chapter 7.
(49) a. Waa, léégi leer na.

INTRJ now be.clear CLFOC.3SG
'Yes, now it is clear.'
B: Leer nàññ kañ, móyyéén! be.clear IDEO KAÑ INTRJ
'It is very clear indeed, would you look at that!'
Dakar
(49) is again emphatic agreement with a subjective assertion.
(50) A: Eske loolu dara la ci?

Q NC.SG.DEM something CFOC.3SG LOC
'Is there something there?'
B: Dara la ci kañ.
something CFOC.3SG LOC KAÑ
'There IS something.'
Dakar

In (50) B has pointed out a small black dot in the picture, but A wonders if there even is something there. B confirms that there is definitely something there. Thus B's utterance is a response to a double-checking move.
(51) A: Dégg nga olof?
understand clfoc.2sg Wolof
'Do you speak Wolof?'
B: Tuuti rekk.
little only
'Only a bit.'
...[continue to make smalltalk in Wolof]...
A: Dégg nga olof kat!
understand ClFoc.2sG Wolof kat
'You DO speak Wolof!'
Dakar
1 Doy waar 'be weird' is an idiom that consists of the verbs doy 'suffice' and waar 'preach', 'be amazed'.
(51) is a counter-assertion.
(52) A: Dafa yàgg.
vFoc.3sg last.long
'It lasted long'
B: Yàgg-ul kat.
last.long-NEG.3SG KAT
'It DIDN'T last long.' Mbour
(52), like (51), is also a counter-assertion, but in (51) the contrasting proposition is not in the immediate discourse.

In order to get a complete paradigm of the distribution of these particles, I elicited the data presented in the next section.

### 4.2.3 Elicited data

For the elicitation I used a survey of verum contexts based on Gutzmann, Hartmann, and Matthewson (2017). These can be found in Appendix C. Speakers were first asked what they would say in a specific context and afterwards also asked for felicity judgments of sentences with other particles in that context. From this elicitation I got minimal pairs with the particles kay, kat, gaa and de, presented in (53) and (54). These examples represent all the possibilities evened out over 24 consulted speakers; there was some minimal variation. 6 speakers could not give judgments on the particles gaa and kat, as they claimed not to use them. This variation is revisited in Section 4.5.
(53) A: Today Fatou looks good.'

B: (Déédéét,) rafet-ul de/ kat/ *kay/ *gaa. no be.pretty-NEG.3SG DE KAT KAY GAA '(No,) she DOESN'T look good.' negative + disagreement
B': (Waaw,) rafet na ?de/ *kat/ kay/ gaa.
yes be.pretty 3sG.ClFOC DE KAT KAY GAA '(Yes,) she DOES look good.'

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positive + agreement
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(54) A: ‘Today Fatou doesn't look good.'

B: (Waaw,) rafet-ul ?de/ *kat/ kay/ gaa. yes pretty-NEG.3SG DE KAT KAY GAA '(Indeed,) she DOESN'T look good.' negative + agreement
B': (Anxkay,) rafet na de/ kat/ kay/ *gaa! yes.Rev be.pretty 3sG.clfoc de kat kay gat '(Yes), she DOES look good!' positive + disagreement

Examples (53) and (54) show that the particle gaa is only felicitous in contexts in which the speaker agrees with their interlocutor, while kat is only felicitous with disagreement. De is felicitous in the same contexts as kat, but it is not as bad as kat in the agreement contexts. Out of the 24 consulted speakers, 8 accepted $d e$ in an agreement context and 2 were unsure. Since de occurs in more contexts other than verum, and in this chapter I only discuss the examples of $d e$ in verum, I do not assign a meaning to $d e$; this is only done in Chapters 7 for sentence-final de and 9 for second position $d e$.

Lastly, kay is felicitous in all contexts except those in which the speaker both disagrees with their interlocutor and their utterance is negative.

Evidence for diagnosing these particles as verum particles, comes from the fact that they are infelicitous in answers to unbiased questions. In (55) no SFP is used in B's utterance as there is no bias in the question.
(55) A: Ndax danga-y wëy?

Q VFoc.2sG-IPFV sing
'Do you sing?'
B: Waaw, dama-y wëy.
yes VFOC.1SG-IPFV sing 'Yes, I sing.'

Adding a SFP in the answer in (55) is possible, but it adds a flavor of the speaker thinking the person asking the question doubts that the answer will be positive. If, on the other hand, a question is grammatically marked as biased, the use of the particle in the answer is strongly preferred. This is shown in (56) with a question with the question particle mbaa, which expects a positive answer (Torrence 2013a, p. 82). Most answers to this question were volunteered with $d e$, as the answer is negative and, since mbaa prompted for a positive answer, the opposite of what was expected by the interlocutor. Kay and gaa were not found felicitous in this answer. ${ }^{2}$
(56) A: Mbaa danga-y wëy?

Q VFOC.2SG-IPFV sing
'Don't you sing?'
A: Wëy-u-ma de/ \#kay/ \#gaa!
sing-NEG-1SG DE KAY GAA

[^2]
## 'No, I DON'T sing!'

Conversely, the question particle xanaa is translated as 'I wonder if' by (Torrence 2013a, p. 82) and according to Faye (2012, p. 105) often used in negative questions, such as in (57). The answer B in (57) was most often volunteered with kay, as the answer is positive, whereas the expected answer was negative. De was also judged as felicitous in (57), but gaa was not.
(57) A: Xanaa wëy-oo?

Q sing-neg.2sG
'I wonder if you don't sing?'
B: Waaw, dama-y wëy kay/ de/ \#gaa! yes VFOC.ISG-IPFV sing KAY DE GAA 'I DO sing!'

Furthermore, verum is never felicitous out of the blue, such when answering to 'What happened?'. This is also the case for the SFPs in Wolof: the use of any of the SFPs in B's answer in (58) is infelicitous.
(58)

| A: | L-u xew? |
| :--- | :--- |
|  | NC.sG-Rel happen |
| 'What happened?' |  |

B: Fatou bind na téére \#de/ \#kat/ \#kay/ \#gaa.
F. write 3sG.clfoc book de KAT KAY GAA
'Fatou wrote a book.'
(59) is an example of a different type of all-new context: while B's answer isn't out of the blue, none of the elements in B's answer are given. Here again, no speaker used an SFP.
(59) A: Ndax mu-ngi taw?

Q 3SG-PROG rain
'Is it raining?'
B: Déédéét, ndëkkendoo y-i ñu-ngi-y raxas ndap.
no neighbor nc.pl-Def.prox 3PL-Prog-IPFv wash dish 'No, the neighbors are washing the dishes.'

Another piece of evidence for analyzing these particles as verum particles comes from the fact that the SFP is obligatory when disagreement over settling the question is overt, as in (60).
(60) A: Dégg naa ne Amadou dafa feebar. hear clfoc.3sG comp A. VFOc.3sG be.sick 'I heard Amadou is sick.'

B: Feebar-ul.
be.sick-NEG3SG
'He is not sick.'
C: Dafa feebar \#(kay)!
VFOC.3SG be.sick KAY ‘He IS sick!'

In (60) B and C overtly disagree on whether to settle the QUD 'Is Amadou sick?' with $p$ or $\neg p$. While a particle in B's answer is not obligatory, as B is the first to answer the question and there is no debate about whether $p$ or $\neg p$ should be added to the CG yet, in C's utterance kay cannot be left out because now $\neg p$ is threatening to enter the CG. The example in (61) provides another illustration. B rejects putting A's assertion into the CG, causing a conversational crisis. A then insists on adding the proposition Maryama dem na 'Maryama has left' into the CG. In the case in (61), speakers used the response particle axakay instead of an SFP. When I asked them if additionally adding kay or de to that sentence is possible, they said it is, but you are being 'even more emphatic'. The relation between response particles and SFPs is revisited in Section 4.6.
(61) A: 'Maryama left already.'

B: 'That's not true!'
A: Axakay, dem na (kay/ de)!
yes.REV go CLFOC.3SG KAY DE
'Yes she DID!'

Furthermore, the particle kay can occur in emphatic agreement in the first clause of a concessive sentence, but crucially not in the second clause, as illustrated in (62).
(62) A: 'Fatou read a good book.'

B: Waaw, jàng na b-enn téére (kay), wànte téére b-i
yes read CLFOC.3SG NC.SG-some book KAY but book NC.SG-DEF.POX baax-ul (de, \#kay)
good-NEG.3SG DE KAY
'Yes she did read a book, but it was not a good book.'

Since the second clause 'it was not a good book' in (62) is in disagreement with the previous utterance 'Fatou read a good book' and it is negative, kay is not licensed, but de is.

Finally, I show some constructed examples taken from natural discourse in which I have replaced the original particle with another one. Consider the constructed example in (63), which I constructed based on (35) in Section 4.2.2. I replaced de from the original example with kay and asked the speaker what the difference would be.
(63) A-y jullit la-ñu kay.

INDF-NC.PL believer CFOC-3PL KAY
'They ARE believers.'
Speaker comment: 'This is the same as with de: you use this when someone doubts you or doesn't believe you.'

Thus, this corroborates that in the positive+disagreement context kay and de are interchangeable. Furthermore, the speaker's comment about using it in a context when someone doesn't believe you jibes well with a verum interpretation.

This concludes the generalizations regarding the particles kay, kat, gaa and de in verum contexts. In the next section I turn to the particle moos, which occurs both in verum contexts and non-verum contexts. This particle is not very frequent and therefore it was hard to elicit a big enough data set to base anything on.

### 4.2.4 Excursus: the occurrence of moos in and out of verum contexts

As mentioned in Section 4.1, the particle moos can also occur in verum contexts. Several speakers have commented that moos indicates agreement. Similarly to kay, moos occurs in positive+agreement contexts, and positive+disagreement contexts, but not negative+disagreement contexts. I do not have examples of moos in a negative+disagreement context. Consider the examples in (64)-(67).
(64) A: Rafet na de!
be.pretty 3sG.clfoc DE
'It is pretty!'
B: Rafet na moos!
be.pretty 3sG.clfoc moos
'Of course it is!'
positive+agreement, elicited
(64) is a positive+agreement context. When it comes to disagreement, however, moos is only possible with positive+disagreement, such as (65) and (66).
(65) A: Fatou rafet-ul.
F. be.pretyy-Neg.3sG
'Fatou is not pretty.'
B: Dafa rafet moos!
VFOC.3SG be.pretty moos
'But of course she is!'
positive+disagreement, elicited
(66) A: Togg-oo yaasa ginaar b-i!
cook-NEG.2SG yassa chicken NC.SG-DEF.PROX
'You didn't cook the yaasa chicken!'
B: Togg naa ko moos!
cook 1sG.CLFOC 3SG.O MOOS
B': *Moos, togg naa ko.
cook ISG.CLFOC 3SG.O MOOS
'Of course I did cook it!' positive+disagreement, elicited

While (66) shows the same type of context as (65), it additionally shows that the particle moos cannot occur sentence-initially. (67) shows that moos is infelicitous in a negative+disagreement context.
(67) A: Am na bëy!
have 3SG.clfoc goat
'There is a goat.'
B: \#Am-ul bëy moos.
have-NEG.3SG goat moos
Intended: 'There is no goat!' negative+disagreement, elicited
Another verum context moos can occur in is in answers to $p / \neg p$ questions as in (68). More examples of verum particles in this specific context can be found in Section 4.6.
(68) A: I don't know: are you coming tonight or not?

B: Dinaa ñëw moos!
FUT.ISG come moos
'Of course I will come!' elicited

However, unlike kay, speakers have said it has an extra flavour of 'of course', 'for sure' or 'you could have known this', as indicated in the translations. Furthermore, it is also felicitous outside of verum contexts.

In (69) it is shown that moos can also occur in second position. The second position use of all the particles, including the ones in this chapter, is discussed in Chapter 9.
(69) Xale b-i moos ñ-ëpp ko bàyyi!
child NC.SG-DEF.PROX MOOS NC.PL-all 3SG.O avoid

Speaker comment for (69): this is good when everybody knows the child is impolite and that's why they avoid him.

Consider also the minimal pair in (70) and (71), that shows a minimal difference in the condition for licensing moos v. licensing kat.
(70) Background: the speaker $S$ doesn't like rice.

A: Moom moos bëgg-ul ceeb! 3SG.EMPH MOOs love-NEG.3SG rice 'Of course he doesn't like rice!' volunteered
(71) Background: the speaker $S$ likes rice.

A: Moom kat bëgg-ul ceeb!
3SG.EMPH KAT love-NEG.3SG rice
'Wow, he doesn't like rice!' volunteered

In (70), the speaker doesn't like rice themself and therefore take it for granted that someone else doesn't like it either. In this situation moos is licensed. In (71), however, the speaker themself does like rice and is surprised that someone else doesn't do so too. In this case kat, rather than moos is licensed. This use of kat in surprise contexts is elaborated on in Chapter 6. When asked for an example of moos, two of my consultants suggested a context with the verb xam 'to know', one of which is shown in (72).
(72) A: Xam nga ko?
know 2SG.CLFOC 3SG.O
'Do you know it?'
B: Xam naa ko moos!
know 1sG.CLFOC 3SG.O MOOS
'Of course I know it.' volunteered

It seems that xam and moos form a collocation. Further evidence for this comes from the book Doomi Golo (B. B. Diop 2003), in which 16 out of the total 20 occurrences of moos are in combination with the verb xam 'to know'. An example is given in (73):
(73) Badu, xam nga ne moos su ma sunu Boroom b-i
B. know 2SG.CLFOC COMP moos if 1SG 1PL.POss lord NC.SG-DET.PROX
nee:
say
'Badou, you know that for sure, if I say to our Lord:'
(B. B. Diop 2003, p. 18)

Another example of xam with moos comes from the folk story Jëkkër ju amul ub léget 'A husband without a scar', as written down by Wàdd (2016), where it is the only occurrence of moos. In (74), the lion, after having caught the gazelle, says:
(74) Mën-oo taxaw? Xam nga ne moos mën-oo ma rëcc can-NEG.2SG stand.up know 2SG.clfoc comp moos can-NEG.2SG 1sG.o escape ci àll b-i! LOC forest NC.sG-DEf.prox
'Cannot get up? Of course you know that you cannot escape me in this forest!' (Wàdd 2016, p. 18)

The only naturally occurring example of moos I have is the one in (75).
(75) A: Namm naa leen!
miss 1sG.clfoc 2pl.o
‘I miss you guys!'
B: Ñoo la raw moos!
1PL.SFOC 2SG.o to.come.first MOOS
'We miss you more (of course)!' Dakar
One example which seems to go in the opposite direction of what I have said so far, namely that using moos presupposes that the listener knows $p$, is the example given for the usage of moos in the dictionary by Munro and Gaye (1997), in which it is translated as 'wow', indicating surprise.
(76) Ceere y-i moos k-enn lekk-u ko
millet.couscous nc.pl-det.prox moos nc.sG-some eat-NEG 3 SG.O
'As for the millet couscous, wow, no one ate it.'
This seems to be in contradiction with (70). There could be variation in the use of moos, more research on this topic is definitely needed. This concludes all the data points on the particle moos. In the next section I go back to the particles discussed in Sections 4.2.2 and 4.2.3 and show how, in addition to being verum particles, they have properties of response particles.

### 4.3 Relation to response particles

Going back to the particles de, kat, gaa, kay and kañ, an aspect in which these SFPs differ significantly from verum focus in Germanic languages, is their ungrammaticality in
questions, as shown in (77). ${ }^{3}$ (77) is a context that licenses verum in English, namely a context in which the speaker presses the addressee to give a true answer out of $p$ and $\neg p$.
(77) A: 'There is a food stand nearby. Do you want to eat?'

B: 'No.'
(a short while later)
B: 'I'm hungry.'
A: Ndax bëgg nga lekk *de/ *kat/ *kay/ *gaa?
Q want 2sG.clfoc eat de Kat Kay gat
Intended: 'DO you want to eat?' elicited
While 'DO you want to eat?' is perfectly fine in English, it is not possible to express verum in questions with any of the relevant particles in Wolof; all of the particles discussed in this chapter only occur in declaratives. An example of a double-checking question, which again is a suitable verum context in English, is given in (78).
(78) A: 'You can do that in Ndar, since we are going there tomorrow.'

B: Taxaw-al, dañu-y dem Ndar suba *de/ *kat/ *kay/ *gaa?
stop-Imp.sG vfoc.1pl-IPFv go Ndar tomorrow de KAt KAy gat Intended: ‘Wait, ARE we going to Ndar tomorrow?' elicited

In order to express verum in questions, one can add the adverb (ci) dëgg-dëgg 'really', as shown in (79).
(79) Ndax bëgg nga lekk dëgg-dëgg?

Q want 2sG.clfoc eat really
'Do you really want to eat?' volunteered
As for imperatives, consider (80), with the imperative tóogal 'sit down'.
(8o) Tóóg-al de/ *kat/ *kay/ *gaa.
sit-IMP.SG DE KAT KAY GAA
'Sit down!' elicited
(80) shows that the particle $d e$ is grammatical in imperatives, whereas the other three particles are not. Nonetheless, $d e$ is not felicitous in verum contexts for imperatives, i.e.,

[^3]contexts in which the addressee refuses to comply with the speaker and the speaker is forced to repeat the imperative. An example of this context in German is given in (81).
(81) A: Jan, bitte, nimm den Stuhl.
J. please take.2SG.IMP DEF.M.ACC chair 'Jan, please take a seat.'
B: *does nothing*
A: Liebling, würde-st du dir bitte den Stuhl nehm-en? darling would-2SG 2SG.nom 2SG.DAT please def.m.acc chair take-INF 'Darling, won't you please take a seat?'
B: *does nothing*
A: Jetzt NIMM dir endlich den Stuhl! now take.2SG.IMP 2SG.DAT finally DEF.M.ACC chair 'Now, SIT down already!'4 German, (Gutzmann 2012, p. 31)

In these cases the interjection waay is used in Wolof, as shown in (83).
(82) A: Tóóg-al!
sit-IMP
'Sit down!'
B: *does nothing*
A: Tóóg-al \#de/ waay!
sit-Imp.SG DE waAY
'SIT down!'
The fact that kay, kat, gaa and de are limited to declaratives, along with the fact that their licensing depends on whether the speaker agrees with the previous utterance, makes them similar to response particles, i.e., particles which are used in answering polar questions and only occur in assertions, such as yes and no in English (Holmberg 2015; Pope 1976).

Nonetheless, they also differ from typical response particles. As shown in Section 4.2, Wolof also has proper response particles: waaw for agreement, déédéét for disagreement and anxkay or axakay for disagreement with a negative statement (cf. German doch and French si). 5 Being proper response particles, these are also felicitous in replies to neutral polar questions such as (55), repeated here as (83).

[^4](83) A: Ndax danga-y wëy?

Q VFOC.2SG-IPFV sing
'Do you sing?'
B: Waaw, dama-y wëy. yes VFOC.1sG-IPFV sing 'Yes, I sing.'

As discussed in Section 4.2, the Wolof SFPs are not felicitous in responses to neutral questions, such as in (83). Secondly, while response particles can be, and often are, used standalone, the Wolof verum particles need a sentence to attach to. Gaa is the only exception to this. Contrary to kat, kay and de, gaa is not limited to sentence-final or second position, but can appear on its own. The ungrammaticality of kat, kay and de, and the grammaticality of gaa as standalone particles is shown in (84).
(84) A: 'Today, Fatou was pretty.'

B: Gaa. *Kat. / *Kay./ *De.
'Indeed.'
(85) furthermore illustrates that gaa can also appear sentence-initially.
(85) A: 'Today, Fatou was pretty.'

B: Gaa, Fatou rafet na.
gat F. be.pretty clfoc.3sG
'Indeed, Fatou is pretty.' elicited
The other three particles, however, are ungrammatical in sentence-initial position, as shown in (86).
*De/ Kat/ Kay, Fatou rafet na. de Kat kay F. be.pretty clfoc.3SG
'Indeed, Fatou is pretty.'
elicited
Recall from (28-a), repeated here as (87-a) that gaa can also occur between a verb and an object, which the other particles again can not, as shown in ( $87-\mathrm{b}$ ).
(87) a. Gis naa gaa xaj b-i.
see clfoc.1sG gat dog nc.sG-def.prox 'I indeed SAW the dog.'
b. *Binta nop na kat/ kay/ de Amadou.
B. love clfoc.3sg kat kay de A.

Intended: 'Binta DOES love Amadou.'

Lastly, while response particles cannot occur in embedded clauses, the SFPs can. Since the particles can attach at the end of a sentence, when they attach at the end of a sentence with a matrix and embedded clause, it is ambiguous to which of those clauses they belong. This can be disambiguated by context. (88) shows that the particles de and kat can be part of the matrix clause, as the contrast is with the matrix verb ne 'tell'. In (89) the contrast is with the embedded verb war 'must'.
(88) A: 'You didn't tell me we have to go!'

B: Nee naa la [dañu war-a dem] de/ kat! say 1SG.Clfoc 2 SG .O vfoc. 1 ipl must-vd go de Kat 'I DID tell you we have to go!'
(89) A: 'You told me we didn't have to go!'

B: Nee naa la [dañu war-a dem de/ kat]! say 1SG.ClFOC 2SG.O vFOC.1PL must-vD go DE KAT 'I told you we DID have to go!'

Summarizing, like response particles, these particles occur in assertions and have a polarity and agreement based distribution. Like verum particles, they only occur in contexts in which 'whether $p$ or $\neg p^{\prime}$ is under discussion and there is controversy on how to settle the question. Thus they do not occur in answers to neutral polar questions and 'What happened?', and they do occur in embedded sentences. Therefore, I propose that these particles have properties of both verum and response particles. In the next section I present a formal account of the SFPs kat, kay and gaa, based on Krifka (2013), which captures their hybrid properties.

### 4.4 Analysis

An overview of the distribution of the particles regarding agreement with the antecedent and polarity is presented in Table 4.1.

|  | agreement | disagreement |
| :--- | :--- | :--- |
| positive | gaa, kay | de, kat, kay |
| negative | gaa, kay | de, kat |

Table 4.1: Verum particles in Wolof.

While gaa, kat and de are each specialized for either agreement or disagreement, the distribution of kay is striking, as it covers three cells of Table 4.1, namely both agreement
cells and positive+disagreement. In this section I show how the anaphora theory for response particles Krifka (2013) an account for both the straightforward distribution of kat and gaa, as the striking distribution of kay.

### 4.4.1 Particles as anaphora

Krifka (2013) proposes that response particles are anaphors. A clausal antecedent introduces a discourse referent (DR), $d$, which is anchored to a proposition. The response particle then picks $d$ up. A simplified example is given in (90). A hooked arrow, $\hookrightarrow$, signals introduction of a discourse referent, whereas an upward pointing arrow, $\uparrow$, signals uptake of it.
(90) A: [ActP did-QUEST [TP Ede steal the cookie]]

$$
\hookrightarrow \mathrm{d}_{\text {prop }}
$$

B: [ActP yes]

$$
\uparrow \mathrm{d}_{\text {prop }}
$$

In Krifka's English examples, such as (90), yes asserts $d$ and no asserts the negation of $d$, i.e.:
(91) a. yes: $\operatorname{ASSERT}(d)$
b. no: $\operatorname{ASSERT}(\neg d)$
(Krifka 2013, p. 7)
Thus, response particles stand for entire speech acts in English. Krifka assumes the structure in (92), in which the illocutionary force resides in a part of the syntax called ActP. He proposes that ActP also introduces a DR and that the response particles pick up this DR.
(92) [ActP $[\mathrm{NegP}[$ TP $]]]$

One way in which the Wolof particles obviously differ from the response particles in English and German, for which the theory was developed, however, is that the Wolof SFPs, except for gaa, always need to attach to a full clause. Consequently, I do not claim that, like the proper response particles in (91), the SFPs can themselves assert. Rather, the assertion is made independently by the sentence that they attach to. This is further corroborated by (88) and (89), repeated here as (93) and (94), that the particles do not have to attach to assertions per se, since they can also attach to an embedded clause dañu wara dem 'we had to go' in (94).
(93) A: 'You didn't tell me we have to go!'

B: Nee naa la [dañu war-a dem] de/ kat! say 1sG.clfoc 2 SG. 0 vfoc. 1 PL must-vl go de Kat 'I DID tell you we have to go!'
(94) A: 'You told me we didn't have to go!'

B: Nee naa la [dañu war-a dem de/ kat]! say 1SG.ClFOC 2SG.O vFOC.1PL must-vl go DE KAT 'I told you we DID have to go!'

The particles only add non-at-issue content. I propose that rather than asserting a preposition, the particles trigger a presupposition about the particle's anchor sentence. In this section I give the semantics for gaa and kat, as their distribution is straightforwardly captured as agreement and disagreement respectively. In the following section I extend my analysis to kay.

Since the particles only add non-at-issue content, the at-issue-content of the sentence they occur in is the same it would have been without the particles. I will now illustrate this with the sentence rafetul gaa '(she) is not pretty indeed' in (95).
(95) $\quad \llbracket$ rafetul gaa $\rrbracket^{\rrbracket} \rrbracket^{g}=\llbracket \mathrm{gaa} \rrbracket^{g}(\mathrm{~g}(\mathrm{~d}))(\llbracket \text { rafetul } \rrbracket)^{g}$

In (95) gaa is indexed $d$, a discourse referent, to which the contextual assignment $g$ assigns a proposition. The proposition rafetul '(she) is not pretty' is asserted. When any of the particles kay, kat and gaa are sub-scripted with $d$, they are interpreted as in (96).
(96) $\llbracket \mathrm{PRT}_{d} \rrbracket^{g}=\llbracket \mathrm{PRT} \rrbracket^{g}(\mathrm{~g}(\mathrm{~d}))$

I propose that $g a a$ is an agreement particle, which means that it triggers the presupposition that the asserted proposition $q$ is the same as the proposition that anchored the $d$ that gaa picked up in (97).
(97) $\llbracket \mathrm{gaa} \rrbracket^{g}=\lambda \mathrm{p} \cdot \lambda \mathrm{q} \cdot \mathrm{q}=\mathrm{p}: \mathrm{q}$
(97) says that the relation between the antecedent proposition $p$ and the proposition $q$ denoted by the clause that the particle attaches to is identity.

The presupposition that kat introduces, on the other hand, is the opposite of the one introduced by gaa. In (98) the relation between the antecedent proposition $p$ and the proposition $q$ that the particle is anchored to is such that $q$ is the negation of $p$.
(98) $\llbracket \mathrm{kat} \rrbracket^{g}=\lambda \mathrm{p} \cdot \lambda \mathrm{q} \cdot \mathrm{q}=\neg \mathrm{p}: \mathrm{q}$

Thus, the particles gaa and kat introduce a presupposition and the meaning of the whole is simply $q$, i.e., the content of the clause the particles are attached to. The presupposition is whether $q$ is the same or the negation of the antecedent proposition $p$.

Thus, the Wolof SFPs need to attach to a declarative clause which can, but does not have to be, an assertion by itself. Therefore, they are not ActPs, like response particles are. Since the particles only target propositions, I use a slightly simplified structure without ActP in my analysis, as in (99). This is not to say that Wolof clauses to not have an ActP, but rather it plays no role in the analysis of the particles.

## (99) [ $\operatorname{NegP}$ [TP ]

Now, applying Krifka (2013) to the Wolof SFPs: kat picks up a discourse referent and, being a disagreement particle, presupposes that the proposition that the particle attaches to is the negation of the proposition anchored to the DR. This is illustrated in (100-b). Gaa picks up the discourse referent introduced by the antecedent proposition and, being an agreement particle, presupposes that the proposition the DR is anchored to is identical to the proposition the particle attaches to. This is illustrated in (100-c).
(100) a. [ ${ }_{\mathrm{NegP}}$ NEG [TP Fatou is pretty]]
$\hookrightarrow \mathrm{d}_{\neg[\mathrm{F} . \text { is pretty] }}$
b. Yes, she is kat!
$\uparrow \mathrm{d}_{\neg[\mathrm{F} \text {. is pretty] }}$
c. Indeed, she isn't gaa.
$\uparrow \mathrm{d}_{-[\mathrm{F} \text {. is prety }]}$
(based on Krifka (2013, p. 5))

Thus, the foundation of the analysis proposed by Krifka (2013) for English and German response particles can also account for the distribution of the response particle-like aspect of the Wolof particles kat and gaa. In the next section I turn to kay.

### 4.4.2 Two agreement particles: kay and gaa

In order to account for the seemingly strange distribution of kay in Table 4.1, I propose that kay is an agreement particle that can pick up DRs introduced by embedded propositions.

According to Krifka (2013) negated sentences introduce an additional discourse referent. One DR is introduced by the higher, negated proposition and one by the embedded
one. This is illustrated in (101). (101-b) and (101-c) show that the demonstrative that is able to pick up either discourse referent.
(101) a. Two plus two isn't five.
[ ${ }_{\text {NegP }}$ NEG [TP $2+2=5$ ]]
$\hookrightarrow \mathrm{d}^{\prime}{ }_{\square[2+2=5]} \quad \hookrightarrow \mathrm{d}_{[2+2=5]}$
b. Everybody knows that.

$$
\uparrow d^{\prime}{ }_{\square[2+2=5]}
$$

c. That would be a contradiction.

$$
\uparrow \mathrm{d}_{[2+2=5]}
$$

(Krifka 2013, p. 5)
We see that that picks up the discourse referent anchored to the negated proposition, $d^{\prime}$, in (101-b) and $d$, anchored to the embedded one, in (101-c). I propose that kay is in fact, like $g a a$, an agreement particle, but unlike gaa, it behaves like that in (100): it can target either discourse referent, $d^{\prime}$ or $d$. For illustration, consider (102). In (102-b) kay picks up $d^{\prime}{ }_{\text {prop[neg] }}$, yielding agreement with a negative statement and in (102-c) it picks up $d_{\text {prop }}$, yielding disagreement with the negated proposition by presupposing the truth of the embedded proposition. Gaa and kat are added in (102-b) and (102-c) respectively for comparison.
(102) a. [ NegP NEG [TP Fatou is pretty]]
$\hookrightarrow \mathrm{d}^{\prime}{ }_{\square[\mathrm{F} \text {. is pretty] }} \hookrightarrow \mathrm{d}_{\text {[F. is pretty] }}$
b. Indeed, she isn't kay/ gaa.
$\uparrow d^{\prime}{ }_{\square[\text { F. is pretty }]} \uparrow d_{\neg[\text { F. is pretty }]}$
c. Yes, she is kay/ kat!

$$
\uparrow \mathrm{d}_{[\mathrm{F} . \text { is pretty }]} \uparrow \mathrm{d}_{\checkmark[\mathrm{F} \text {. is pretty }]}
$$

(based on Krifka (2013, p. 5))
We see that while gaa in (102-b) and kat in (102-c) always target the discourse referent introduced by the highest proposition, $d^{\prime}{ }_{\text {prop[neg], }}$, kay can target both $d^{\prime}{ }_{\text {prop[neg] }}$ and $d_{\text {prop }}$, and thus is felicitous in both a negative+agreement, as in (102-b) or a positive+disagreement context, as in (102-c).

The proposed analysis makes a crucial prediction: kay can only be used express disagreement with the addressee when the antecedent proposition is negative, because, as negation introduces an extra discourse referent, it is the only situation in which there are two proposition which can be targeted. This is borne out, as shown in (103-b), where there is nothing that kay can pick up and agree with and still be felicitous
in a negative statement. When kay picks up the discourse referent anchored to the proposition (103-c) it can only agree with it and thus it can only be be felicitous in a positive statement.
(103) a. [TP Fatou be.pretty-PST]
$\hookrightarrow \mathrm{d}_{\text {[F. is prety] }}$
b. No, she did not kat/ \#kay.
$\uparrow \mathrm{d}_{\text {[F. is pretty] }} \uparrow ? ? ?$
c. Yes, she did kay/gaa.
$\uparrow d_{\text {[F. is pretty] }}$
(based on Krifka (2013, p. 5))
Since I propose that gaa and kay are both agreement particles, they trigger the same presupposition, namely that the asserted proposition $q$ is the same as the proposition that anchored the $d$ that gaa picked up, $q$, as was shown in (97) for $g a a$, repeated her as (104) for kay.
(104) $\quad \llbracket \mathrm{kay} \rrbracket^{g}=\lambda \mathrm{p} \cdot \lambda \mathrm{q} \cdot \mathrm{q}=\mathrm{p}: \mathrm{q}$

In conclusion, I have proposed the same semantics for both gaa and kay, even though they do not have the same distribution. There are two differences between the particles, which lie in i) their syntactic requirements and ii) the nature of the antecedent proposition. Regarding the first difference, recall from (84), repeated here as (105), that kay always has to attach to the clause, while gaa can also occur on its own.
(105) A: Today, Fatou was pretty.

B: Fatou rafet na gaa/ kay. F. be.pretty clfoc. 3 SG GAA KAY 'Indeed, Fatou is pretty.'
B': Gaa. / *Kay.
'Indeed.'
Thus, while kay always needs an overt complement, gaa can have a so-called null complement, i.e., a non-linguistic complement that is interpreted from context (Hankamer and Sag 1976, p. 411). ${ }^{6}$

Regarding the second difference, recall that in response to a negative utterance, kay

[^5]can target both DRs introduced by the negative sentence, whereas gaa can only target the highest, i.e., the negated, one. This is a property of the particles that again does not follow from anything in the semantics. However, I would argue that it is not coincidental that the particle that can have an implicit argument is not the same as the particle that can target two possible antecedent propositions. If gaa were able to target either DR introduced by (106), (106) would be ambiguous between 'she wasn't pretty' and 'she was pretty'.
(106) A: 'Today, Fatou wasn't pretty.'

B: Gaa.
Conversely, while kay can pick up either DR introduced by (106), it is always disambiguated by the clause kay attaches to.

### 4.4.3 Verum marking across clause types

I have descriptively called the particles kat, kay and gaa both 'verum particles' and 'verum-response hybrid particles'. To be more precise, I propose that the lexical meaning of these particles is as in the previous section, and that verum is not part of their lexical meaning. Rather, the verum operator in Wolof is covert, but requires to be 'made visible' by some morphological marker. This can be postulated as a rule in (107).
(107) VErum needs to have an exponent.

The reasons for not positing the verum operator as part of the lexical meaning of the verum particles are twofold. First of all, in Chapter 6 I will show that kat does not only occur in verum contexts, but also in surprise contexts. The reason kat can occur in surprise contexts is purely due to its semantics as a disagreement particle and is unrelated to verum. Second, separating the verum operator from the lexical meaning of the particles also helps to explain why verum is only realized with these particles in declaratives. The response particle properties of the sentence-final particles block them
(i) The Anchorage animal shelter has verified they do indeed have the correct information on Brutus' microchip.

English, COCA (Davies 2008)
In (i) indeed is used clause-medially, while in (ii) it occurs as a response particle.
(ii) A: You'd have a better chance of getting that alignment over Stonehenge, or with Venus, Mars and Jupiter or Saturn.
B: Indeed!
from occurring in other clause types. It was shown in Section 4.3 that in questions, the verum operator is made visible by (ci) dëgg-dëgg 'really' and in imperatives by the interjection waay, both of which are not specialized verum markers and also have other functions.

Furthermore, recall from Section 4.2 that the particle de can also occur in verum contexts. In Chapter 7 I propose to analyze $d e$ as an intensifier that can modify the degree to which a speakers thinks $p$ should be added to the CG. Thus, $d e$ is also not a bona fide verum particle, but a particle that can be used to give a morphological exponent to the verum operator, meeting (107). Thus, the picture that emerges is that Wolof does not have dedicated verum markers, but rather uses different linguistic elements to make the verum operator visible. Which element is picked depends on the semantics of that element: response particle-like morphemes and an intensifier in declaratives, an adverb in questions and an interjection in imperatives, as illustrated in Table 4.2.

| clause type | verum marked by |
| :--- | :--- |
| declaratives | response-like particles: gaa, kay, kat \& intensifier: de <br> questions <br> adverb: (ci) dëgg-dëgg: <br> imperatives <br> interjection: waay |

Table 4.2: Verum marking across clause types.

The fact that Wolof has no dedicated verum particle makes it different from, for example, languages like Bura (Chadic, Afro-Asiatic) and Gitksan (Interior Tsimshianic), which, as has been shown in Gutzmann, Hartmann, and Matthewson (2020) and Matthewson (2020) have bona fide verum particles that can mark verum in both questions and declaratives. ${ }^{7}$ An example from a question in Bura with the verum particle $k u$ is shown in (108). More examples of verum marking in Bura and Gitksan are shown in Chapter 5, where I discuss Gutzmann, Hartmann, and Matthewson (2020) in more detail.
(108) Ga ku masta shinkafa ni ya?

2SG VERUM buy rice DEF Q
'DID you (really) buy the rice?'
Bura
(Gutzmann, Hartmann, and Matthewson 2020, p. 21)
Coincidentally, Spanish and Catalan also mark verum using a construction with a

[^6]particle that is related to a response particle, namely with the construction sí (que), which historically comes from the response particle si 'yes' and the complementizer que. Like in Wolof, this type of verum marking is only grammatical in declaratives in Spanish and Catalan (Kocher 2018, 2019b). ${ }^{8}$ Also like Wolof, Spanish uses an epistemic adverb, de verdad 'really', for verum in questions, as shown in (109).
(109) a. *iSí (que) escribe un libro?
yes that write.3SG.PRS INDF.m book
Intended: 'IS he writing a book?'
b. ¿De verdad escribe un libro? really write.3SG.PS INDF.M book 'Is he really writing a book?'

Spanish (Kocher 2018, p. 10)
The unavailability of verum marking with a particle in questions in Wolof was shown in (77) and is repeated here as (110).
(110) Ndax bëgg nga lekk *de/ *kat/ *kay/ *gaa/ dëgg-dëgg?

Q want clfoc. 2sG eat de KAt KAY gat really
'Do you really want to eat?'
elicited

It appears to be a promising avenue for future research to see whether there is an intrinsic relation cross-linguistically between using response particle-like elements to mark verum and the availability of those markers across clause-types.

Concluding, in this section I have shown that, based on the analysis proposed by Krifka (2013) for English and German response particles, we can also account for the distribution of the response particle-like elements of the Wolof particles kay, kat and gaa. One major difference between the Wolof SFPs and proper response particles is that response particles themselves assert, while the SFPs only add non-at-issue content. In the next section I show that there are also factors that constrain the usage of the particles that are not semantic nor pragmatic, but rather sociolinguistic.

### 4.5 Other factors that influence particle usage

The distribution of the particles also depends on sociolinguistic and dialectal factors. Though my study of the particles was not detailed in those respects, I include these

[^7]findings nonetheless for completeness and as a starting point for potential further research.

First, de and kay are frequent in all of the areas where I did fieldwork, whereas the use of gaa and kat was more common outside of Dakar and by Li Wolof speakers, rather than speakers of Dakar Wolof or urban Wolof, a variety of Wolof spoken by people of different linguistic backgrounds who live in urban environments (Mc Laughlin 2001). Some (L2) Wolof speakers in Dakar did not recognize the particles gaa and kat, others did, but did not use them and commented that these two particles were wolof pur et dur, or 'deep Wolof', i.e., the Wolof spoken mostly in rural areas by L1 speakers. However, even in the two other urban environments where I did fieldwork, Thiès and Ndar, all speakers I consulted recognized the particles and had intuitions about them. Additionally, speakers in Dakar would sometimes comment that gaa is typical of the dialect spoken in Ndar, the Waalo dialect. This is also reported in J. L. Diouf (2003). Indeed, everybody I asked in Ndar did recognize the particle. However, I also consulted people in Thiès and Mbour who recognized the particle and associated it with 'old people' rather than 'people from Waalo', thus I refrain from making any specific dialectal claims.

Second, Torrence (2013a, p. 84) lists kaay [sic.] and kañ as two separate particles when he gives an overview of the Wolof topic/emphasis particles. J. L. Diouf (2003) does not list kañ as a separate particle, however he does list the response particle axakañ as a variant of axakay (J. L. Diouf 2003, p. 12). Taking this response particle to consist of axa plus kay or kañ - see Section 4.6 for more on response particles - this is an indication that the two particles, kay and kañ, are variants. My findings go in the same direction: speakers who use kañ, use it in exactly the same contexts as kay, i.e., positive+disagremeent and emphatic agreement. Recall from Section 4.2 that the naturally occurring examples in which kañ was used were emphatic agreement ones. An elicited example of a positive+disagreement context is shown in (111).
(111) A: 'You didn't cook the yaasa chicken!'

B: Waaw, togg naa yaasa ginaar kañ! yes cook clfoc.1sG yassa chicken каÑ 'Yes, I DID cook yassa chicken!'9 elicited

Some speakers commented that kay and kañ are the same. One person even did not recognize that there are two different particles in the first place. This was a speaker

[^8]of Sereer origin, who lives in the Wolof-speaking village Sanar. He consistently used $k a \tilde{n}$ in his Wolof when I conducted the verum questionnaire with him. I asked him if he could also say kay in those contexts and he said that he did say kay, until another speaker interrupted and told him 'No, you say kañ!'. The particle kañ also exists in Sereer (Atlantic, Niger-Congo), as illustrated in (112).

| (112) | Ii, lay-aam kañ. |
| :--- | :--- |
|  | yes speak-PFV.ISG KAÑ |
|  | Yes, I did speak.' ${ }^{10}$ | Sereer (Merrill 2018a, p. 58)

Sereer is related to Wolof and spoken in neighbouring regions. While I have no detailed knowledge of the use of this particle in Sereer, the translation in (112) suggests a positive+agreement context, which is compatible with the Wolof particle kay.

Furthermore, this alteration between the [j] in kay and the [n] in kañ is also found at the end of other words. For example, càmooy 'left' is pronounced as càmooñ by some speakers. Thus, kañ is a variant of kay, and its usage is possibly due to interaction with Sereer, or due to the relation between the sounds [y] and [n], or both.

This concludes the description and analysis of the particles kay, kañ, de, gaa, kat and moos in Wolof. In the next section I discuss some directions for future research and in Chapter 5 I go into what these data contribute to the theory of verum.

### 4.6 Directions for future research

In this section I discuss two directions for future research: i) the Wolof answering system and interaction between verum and response particles and ii) verum in responses to alternative questions.

### 4.6.1 The Wolof answering system

Since I have analyzed kat, kay and gaa as having properties of response particles to various degrees, in this Section I look into how they interact with proper response particles. Wolof has at least the following response particles: waaw, déédéét (also déédééd), waazoaaw, waaw kay, waaw kañ and anxkay (the first part is also spelled as axa, aha or an and the second also as kañ).

[^9]Most languages are either Positive-Negative (P-N, also known as polarity-based) languages, i.e., English, (113), or Agreement-Disagreement (A-D, also known as truthbased) languages, i.e., Japanese (114). In P-N languages the RP has the same polarity as the answer, whereas in A-D languages the RP expresses agreement or disagreement with the previous utterance.
(113) A: 'Does he not drink coffee?'

B: 'No, he does not drink coffee.'
B': 'Yes, he DOES drink coffee.'
English, (Holmberg 2015, p. 4)
(114) A: Kare-wa koohii-o noma nai no?
he-tor coffee-acc drink neg Q
'Does he not drink coffee?'
B: Uun, nomu yo.
no drink PRT
'No, he drinks (coffee).'
B': Un.
'Yes (he does not drink coffee).' Japanese, (Holmberg 2015, p. 2)
In this section I explore the possibility that there are two groups of Wolof speakers: those that use a P-N system and those that use an A-D system. Shifts from P-N to A-D systems are not uncommon, they are also reported for English and Italian (Servidio, Bocci, and Bianchi 2018). First, an overview of all the response particles that will be discussed in this section is given in Table 4.3.

| response particle | meaning for P-N group | meaning for A-D group |
| :--- | :---: | :---: |
| waazw | positive polarity | agreement |
| déédéét | negative polarity | disagreement |
| anxkay | positive disagreement | - |
| waazwaaw | emphatic agreement \& positive+disagreement? |  |
| waaw kay | emphatic agreement, voilà |  |
| waaw kañ | bravo! |  |
| naam | response to name being called |  |

Table 4.3: Response particles in Wolof.

Axakay/axakañ is a specialized Positive Disagreement particle (it is translated as French 'si' in J. L. Diouf (2003, p. 9) and as 'yes (used in answer to a negative question)' in Munro and Gaye (1997, p. 7)). According to Holmberg (2015), having a specialized particle for Positive Disagreement is a property of Positive-Negative languages only.

Additionally, according to Servidio, Bocci, and Bianchi (2018) it is only a small subset of the P-N languages that have a three particle system. Holmberg (2015), using the database Syntactic Structures of the World's Languages (Koopman 2016), lists Wolof as a Positive-Negative language. ${ }^{11}$ This is corroborated by examples from Faye (2012) showing responses to biased questions. In (115) the question is biased for a negative answer, and the answer given is indeed negative. Here déédééd is used in the answer.
(115) A: Xanaa xam-ul-oo Gore?

Q know-NEG-2sG Gorée 'I don't suppose you know Gorée?'

B: Déédééd, xam-u-ma Gore.
no know-NEG-1SG Gorée 'No, I don't know Gorée.' ${ }^{\text {'2 }}$ negative+agreement (Faye 2012, p. 105)

Despite this characterization of Wolof as a Positive-Negative language, some of the speakers I worked with used waaw as an agreement response particle, rather than as a positive polarity particle. This can be seen in example (54) in Section 4.2. A negative+agreement example volunteered with waaw and no SFP is repeated here as (116). 6 other speakers used waaw in this context, the other used no response particle at all.
(116) A: Tey, Fatou rafet-ul.
today F. be.pretty-NEG.3SG 'Today, Fatou doesn't look pretty.'
B: Waaw, rafet-ul.
yes be.pretty-NEG.3sG
'Yes, she doesn't look pretty.' negative+agreement, volunteered
(116) suggests that at least some speakers have acquired an Agreement-Disagreement system. In Positive Disagreement some speakers used waawaaw instead of anxkay. J. L. Diouf (2003, p. 323) translates waawaaw as 'absolutely' and Munro and Gaye (1997, p. 196) as 'yes indeed' and 'certainly'. Waawaaw seems to additionally be used with emphatic agreement, as shown in (117).
(117) A: Mbaa xam nga Gore?

Q know clfoc.2sG Gorée
'I hope you know Gorée?'

[^10]B: Waawaaw, xam naa Gore b-u baax.
yes know clfoc.1sG Gorée nc.sG-REL be.good
'Yes, I know Gorée well.'
(Faye 2012, p. 105)

In (117) waawaaw is used in answer to a question biased for a positive answer. Faye (2012) gives a contrasting pair in which an unbiased question is answered with just waaw. Thus, waaw and waawaaw are not interchangeable. ${ }^{13}$ Additional examples of waawaaw are shown in (118) and (119).
(118) A: Maanaam, l-épp rekk, xam nga, b-u jàmm am-ee you.know NC.SG-all only know 2SG.CLFOC NC.SG-REL peace have-CLFOC entre yaay y-i rekk. between.FR mother NC.SG-DEF.PRox only 'You know, all that matters is that there is peace between the mothers.'
B: Waawaaw!
'Certainly!' Ndar

The people in (118) are talking about co-wives. In (118), waawaaw expresses emphatic agreement. With waawaaw the speaker seems to suggest that not only they accept $p$ 'all that matters is that there is peace between the mothers' in the common ground, but they could have just as easily asserted $p$ themselves. According to Gunlogson (2008), commitments have sources, and a speaker is a source when they are in a position to assert $p$ based on their own judgement. This is the Source Principle (Gunlogson 2008). Thus, applying this principle to (118), the speaker and the addressee are both independent sources for $p$ 'all that matters is that there is peace between the mothers'. A similar example is given in (119), where B emphatically agrees with A.
(119) A: Yalla moo-y k-i, nga xam ne, moo-y dog-al, god SFOC.3SG-IPFV NC.SG-DEF.PROX which SFOC.3SG-IPFV cut-CAUS te bés b-u dog-al, loo ci góób-e l-u nekk and day NC.sG-REL cut-CAUS what.2SG LOC reap-APPL NC.SG-REL exist rekk, Yalla mën na ko nangu. only god be.able cLFOc.3SG 3SG.o take.back 'God is the one who decides, and the Day of Judgment, everything that you have reaped, God can take it back.'

[^11]B: Waawaaw!
'Certainly!'
Sanar

Despite claiming that kañ is a variant of kay, I have listed waaw kay and waaw kañ as two separate RPs in Table 4.3, because I am not sure that they have the same meaning. J. L. Diouf (2003) does not have an entry for waaw kay, but he translates waaw kañ as 'bravo!'. However, this is probably not the same kañ as the sentence-final particle kañ, since J. L. Diouf (2003, p. 121) claims it comes from the noun kañ (wi) 'citation d'exploits d'une personne', i.e., 'the mentioning of someone's achievements'. The exact use conditions of waawkay are not clear to me at this point, but several speakers have commented that it means something like French voilà 'there you go'. A context for uttering waaw kay provided by a speaker was "When you mentioned someone and at that exact moment they walk through the door". Naturally occurring examples of its use are shown in (120).
(120) A: Boo ko dagg-ee foofu silip la-y nirool if.2SG 3SG cut-pfv there slip cFOc.3SG-IPFv resemble 'If you cut it there it looks like a slip.'
B: Waaw kay, soo ko dagg-ee, mu-y nirool silip. 'Yes KAY if.2sG 3 SG.O cut-pfv 3 SG-IPfv resemble slip 'Yes indeed, if you cut it up, it looks like a slip.'
A: Waaw kay!
'Yes indeed!' Dakar
In (120) A tells B that the ambiguous picture they are describing can look like underwear. When B sees it she emphatically agrees with A, to which B again repeats waaw kay. In (120) the speakers are very amused by this fact. Figure 4.1 shows the pitch contour of A's waaw kay, which shows that the realization of kay is similar to kay in a sentence, which is shown in Figure 4.2.


Figure 4.1: pitch contour waaw kay


Figure 4.2: pitch contour Loolu dëgg la kay
(121) A: Gis-oo ci bopp-u ursu?
see-NEG.2sG LOC hear-GEN bear 'Don't you see the bear's head?'
B: Gis naa ci kaw de. B-enn ursu, l-u mel ni see CLFOC.ISG LOC TOP DE NC.SG-some bear NC.SG-REL look.like COMP bopp-u ursu head-GEN bear 'I DO see it, at the top. A bear, something that looks like a bear's head.'
A: Waaw kay!
'There you go!' Dakar
In (121) the speakers are again describing an ambiguous image. When $B$ says that she sees the bear that A is talking about, A says waaw kay meaning something like 'there you go, now you see it', i.e., the voilà meaning that my consultants have referred to. In the conversation where (121) is from there were 63 tokens of waaw, 6 of which were in combination with kay.
(122) A: Yà-ngi ci bunt b-i?

2SG-PROG LOC door NC.SG-DEF.PROX
'You're at the door?'
B: L-ii di tàkk, moom di xuy-xamaj, NC.SG-DEM.PROX IPFV light.up 3SG.EMPH IPFV turn.on-turn.off
l-ii l-an la?
NC.SG-DEM.PROX NC.SG-Q CFOC.3SG
This thing that lights up, this thing that goes on and off again, what is it?'
A: Waaw kay.
'Good (you are at the right place).' Dakar
The speakers in (122) are doing a map task. A isn't sure if B is at the right place, but when $B$ starts talking about a light, A realizes that $B$ is indeed at the right place and says waaw kay. In this conversation 5 out of 52 tokens of waaw were with kay and all of them are used in the same way as (122): to indicate that the addressee is in the right place.
(123) A: Dinaa doxale noonu si sama biir-u néég-u sëy FUT.1SG walk like.this LOC 1SG.POSs inside-GEN room-GEN marriage ba mu dëgër, waaw.
until 3SG.s hard yes
'Inside the chamber of my marriage I will maintain myself well, yes.'
B: Waaw kay, yaay!
'Yes, mother!'
Sanar

The women in (123) are talking about marriage and have concluded that there are many difficulties with being married as a woman. A concludes however, on a positive note, saying that she will stay strong, to which B emphatically agrees.

The final particle I want to mention here, for completeness, is naam, which is used to respond when one's name is called out, similar to yes? in English. I give examples of naam in Chapter 8.

Additionally, verbal gestures are frequently used instead of, or together with, response particles. A non-exhaustive overview of verbal gestures and their meaning in Wolof can be found in Grenoble, Martinović, and Baglini (2014). Clicks, which are not phonemic in Wolof, are often used to express agreement and disagreement. According to Grenoble, Martinović, and Baglini (2014) a bilabial dental click that is repeated twice means 'no', whereas 'yes' can be expressed by a single palatal/velar click or repeated lateral or alveolar clicks. These three different ways of expressing agreement using verbal gestures are in free variation according to Grenoble, Martinović, and Baglini (2014). Moreover, the agreement clicks are frequently used for back-channeling and for expressing 'I see' or 'right', rather than just 'yes'.

It seems that the RPs waaw kay and anxkay consist of a response particle with a sentence-final particle attached to it. With waaw kay this is transparent, but anx or axa are not response particles, at least synchronically. A similar response particle, っhə 'yes', however exists in Bambara. Bambara also has the variant $\supset h \supset k \varepsilon$, and ké is a sentence-final particle in that language. This might be the origin of the Wolof response particle axakay. Additionally, Bambara has shodé, with the SFP dé, but in Wolof the particle kay is the only one that can be added to response particles, de and kat can not. Verum particles combining with response particles can also be found in Spanish and Catalan, as in (124).
(124) a. ¡Eso sí que no! this verum que no ‘This: no way!' Spanish (Kocher 2019b, p. 136)
b. Ara sí que sí! now verum que yes 'Now: absolutely yes!'

Catalan (Kocher 2019b, p. 136)
In (124) the verum marker síque is used in combination with the response particles no
and sí respectively. Furthermore, the particle kay can be used with the collocation wax nga dëgg 'you're right', lit: 'you speak the truth', as in (125). This is the only example I have of kay as a SFP outside of a true verum context. The only explanation I can offer for this is that it is a fixed expression expressing agreement, similar to waaw kay, and thus forms an exception.
(125) a. Kerug sump da... xaw-ul-a neex shadow Egyptian.balsam vfoc.3sG be.almost-NEG.3SG-vl be.nice moo tax
3sG.sfoc cause
'The shadow of the Egyptian Balsam (type of tree) is not nice, that's why.
b. Wax nga dëgg kay. speak 2sG.clfoc truth Kay 'You are right.'

Dakar
As for the interaction between SFPs and RPs, we have seen in Section 4.2 that RPs are optional when SFPs are used and vice versa. Both can also be used, but it is not clear what the added effect of this is. In the case of anxkay with kay, speakers consider this 'superfluous' or something you use when you 'really want to emphasize'. On the other hand, when waaw is used in a positive+disagreement context, kay becomes obligatory. This can be to disambiguate waaw, whereas with anxkay no disambiguation is needed. Examples are shown in (126).
(126) A: Today Fatou wasn't pretty. Negative

B: (Anxkay,) rafet na (kay)!
yes.neg be.pretty clfoc.3SG KAY
B': Waaw, rafet na kay!
yes.NEG be.pretty clfoc.3SG KAY
'Yes, she WAS!'

## Positive + Disagreement

The details of the Wolof answering system are thus a promising path for future research, as it seems unclear whether the language has an A-D or P-N system, or whether it is changing from a P-N to an A-D system. It is known that P-N languages can shift to A-D answering patterns in certain contexts (Servidio, Bocci, and Bianchi 2018). Furthermore, there are different response particles whose exact distribution is still to be researched. Finally, there is interaction with response particles and verum particles.

### 4.6.2 Answering to alternative questions and differentiating between counter-assertion and verum

One of the contexts mentioned in Section 4.1 was the contexts in which one answers to alternative questions of the type ' $p$ or $\neg p^{\prime}$ '. Kocher (2019a) call these proper verum contexts, because the QUD 'whether $p$ or not $p^{\prime}$ has been made explicit in the discourse. Ideally, these contexts should rule out counter-assertion and emphatic agreement and only elicit 'pure verum'. Additionally, these contexts were meant to help disambiguate between (dis)agreement with the polarity of the previous utterance, or disagreement with the other discourse participant. Since these are alternative questions, there can be no agreement or disagreement with the other discourse participant. And since both $p$ and $\neg p$ are made explicit in the question, both possible polarities should be able to be targeted as antecedents. However, I have found these contexts to be problematic in elicitation, as I show in this section.

First, in English the paradigm is as in (127):
(127) A: I forgot if you are coming tonight or if you aren't coming.'

B: No, I AM coming!
B': Yes, I AM coming!
B": No, I am NOT coming!
B"'\#Yes, I am NOT coming! (J. Gray, p.c.)
First, recall the pattern that emerged in reactions to assertions in (53) and (54), repeated here as (128) and (129).
(128) A: Today Fatou looks good.'

B: (Déédéét,) rafet-ul de/ kat/ *kay/ *gaa.
no be.pretty-NEG.3SG DE KAT KAY GAA
'(No,) she DOESN'T look good.' negative + disagreement
$B^{\prime}$ : (Waaw,) rafet na ?de/ *kat/ kay/ gaa.
yes be.pretty clfoc.3SG de KAT KAY GAA '(Yes,) she DOES look good.'
positive + agreement
(129) A: ‘Today Fatou doesn't look good.'

B: (Waaw,) rafet-ul ?de/ *kat/ kay/ gaa.
yes pretty-neg.3sG de kat kay gai '(Indeed,) she DOESN'T look good.' negative + agreement
$\mathrm{B}^{\prime}$ : (Anxkay,) rafet na de/ kat/ kay/ *gaa!
yes.rev be.pretty clfoc.3SG de Kat Kay gat
'(Yes), she DOES look good!'
positive + disagreement
Since I proposed that kay can target either the embedded or negated proposition in Section 4.4, the felicity of kay shouldn't depend on disagreement with the interlocutor. It should always be felicitous in answers to $p, \neg p$ questions, as in those cases both propositions are available. However, based on a preliminary test, this is not corroborated. I only tested these sentences after I came back from fieldwork, through text and voice message. I consulted with 5 speakers, two of which repeated a polar question and answered to that, instead of to an alternative question. Thus, it was hard to make the context clear in this setting. The other three speakers gave conflicting answers. I will show each of them below. The answers given by Speaker 1 are given in (130).
(130) A: I don't know: are you coming tonight or are you not coming?

B: Dinaa ñëw kay/ ?de/ \#kat/ \#gaa FUT.1SG come KAY DE KAT GAA 'I AM coming!'
B': D-u-ma ñëw \#kay/ de/ kat/ \#gaa ipfV-Neg-1sg come kay de kat gat ‘I am NOT coming!' elicited, Speaker 1 (from Dakar)

Gaa is infelicitous in either response. This follows if we take gaa targeting the highest proposition being equivalent to expressing agreement with the addressee. In (130) since the addressee has made both propositions explicit, the speaker cannot agree with the addressee if they only agree with one proposition. Kay, however, is still infelicitous in negative+disagreement, despite the fact that the negated proposition could be be targeted. Furthermore, kat is only felicitous in the negative answer. Again, this is not predicted. It should be either able to target either proposition, since both propositions are given in the discourse, in which case it should be felicitous in both answers, or it should actually express disagreement with the addressee, in which case it should be felicitous in neither answer. The speaker also preferred de with a negative answer.

The answers that Speaker 2 gave are shown in (131).
(131) A: I don't know: is Mamadou coming tonight or is he not coming?

B: Dina ñëw kay/ ?de/ ?kat
fut.3SG come кay de Kat
'I AM coming!'
B': D-u ñëw ?kay/de/ kat IPFV-NEG.3SG come KAY DE KAT 'I am NOT coming!'

I didn't ask Speakers 2 and 3 about gaa. Speaker 2 commented that kay is much better in a positive response and that $d e$ and kat are better in the negative response, but he was not clear on whether any of them are infelicitous in each context, hence I marked the particles that he dispreferred with question marks.
(132) are the answers from Speaker 3:
(132) A: I don't know: is Mamadou coming tonight or is he not coming?

B: Dina ñëw kay/ de/ ?kat FUT.3SG come KAY DE KAT 'He IS coming!' elicited, Speaker 3 (from Thiès)

I only asked Speaker 3 about the positive response, in which only kat seems to be infelicitous

The only thing that is clear is from comparing the answers from the three consultants is that the polarity of the answer plays a role: kay is always felicitous in the positive answer and infelicitous in the negative answer and vice versa for kat, which is felicitous in the negative answer and infelicitous in the positive answer. Other than that there seem to be no clear judgments for these questions.

A possible reason for this is that is not entirely clear whether the alternative questions I used are really neutral questions. According to Biezma and Rawlins (2012) questions with an overt negated proposition, such as the one used in this section, are neutral: they provide two alternatives and asking the listener to pick one. Biezma and Rawlins (2012) specifically contrast these questions with 'or not' questions, which are said not to be neutral, but cornering questions. I tried to make the context as neutral as possible by having 'whether you are coming tonight or if you aren't' embedded under 'I forgot'. Nonetheless, it could be the case that the speakers interpreted these questions as 'or not' questions. Thus, if these contexts are refined with more details and the elicitation is carried out in person, they could provide interesting data.

### 4.7 Summary

In this chapter I have shown that while Wolof uses morphological means to mark verum, it does not have designated verum particles, like for example Gitksan and Bura (Gutzmann, Hartmann, and Matthewson 2017; Matthewson 2020) have. While bona fide verum particles can also occur in other clause types, such as questions, the Wolof particles kay, kat, gaa, kañ, de and moos are restricted to declaratives. The particles occur in verum contexts and the choice of particle depends on (dis)agreement. This
(dis)agreement-based distribution, along with their ungrammaticality in questions, gives the particles properties of response particles.

In this chapter I have proposed an analysis for kay, gaa and kat, which have properties of both verum and response particles. My analysis is based on the anaphor theory for response particles (Krifka 2013). Unlike proper response particles, the Wolof SFPs need a clause to attach to and thus introduce a requirement on their context. I have analyzed gaa and kay as agreement particles and kat as a disagreement particle. The presupposition triggered by the agreement particles is shown in (133).
(133) $\llbracket$ gaa $/ \mathrm{kay} \rrbracket^{g}=\lambda \mathrm{p} \cdot \lambda \mathrm{q} \cdot \mathrm{q}=\mathrm{p}: \mathrm{q}$

While gaa and kay are both agreement particles, kay can target either the highest proposition or the proposition embedded under negation, making it felicitous in positive+disagreement contexts. Gaa can only target the highest proposition. The presupposition triggered by the disagreement particle kat is shown in (134).
(134) $\quad \llbracket \mathrm{kat} \rrbracket^{g}=\lambda \mathrm{p} \cdot \lambda \mathrm{q} \cdot \mathrm{q}=\neg \mathrm{p}: \mathrm{q}$

As the particles used in verum contexts do not mark verum across clause types, and as they also occur on other contexts, I do not consider verum part of the lexical meaning of these particles. Rather, I postulate that the verum operator in Wolof needs to be 'made visible' by some morphological marker, per (135).
(135) VERUM needs to have an exponent.

Furthermore, I have shown that the particle moos occurs in similar contexts to kay, but has an additional flavor of 'of course', or 'you should have known' and that the particle kañ is a variant of kay. I have also proposed two direction for further research based on my findings: i) a more thorough investigation into the Wolof answering system and ii) the occurrence of SFPs in answers to $p, \neg p$ questions.

In the next chapter I discuss the implications of my findings for theoretical aspects of verum.

## 5 Theoretical implications for verum

In this chapter I discuss various theories of verum and verum focus: these can roughly be divided into theories that assume verum to be a sub-type of focus and theories which assume verum to be an independent lexical operator, the latter called Lexical Operator Theses and the former Focal Accent theses by Gutzmann (2012). The implications of the data and generalizations presented in Chapter 4 for the theory of verum are the following: i) verum is not always focus, as the Wolof data, like the data from other languages discussed in Gutzmann, Hartmann, and Matthewson (2017), do not support a focus based analysis for verum, ii) in line with Matthewson (2017), there is micro-variation in the discourse conditions for verum cross-linguistically and iii) some languages, such as Wolof, have different lexical means of marking agreement and disagreement verum. I first give a brief overview of different verum theories in the next section and in Section 5.2 I show how the data presented in this chapter argue in favor of Lexical Operator Theses such as Romero and Han (2004), Gutzmann and Castroviejo Miró (2011) and Gutzmann, Hartmann, and Matthewson (2017). In Section 5.3 I attempt to capture the contexts introduced in Chapter 4 Section 4.1 using the definition of verum given in Gutzmann, Hartmann, and Matthewson (2020). In Section 5.4 I show that how discourse conditions for verum in Wolof vary slightly from those in English.

### 5.1 Verum theories

As I mentioned in Section 4.1 of Chapter 4, though the term 'polarity focus' has been used since Dik and Van der Hulst (1981), the term 'verum focus' was coined by Höhle (1992), who considered it to be focus marking on a covert verum operator in the syntactic C-domain. The meaning of verum according to Höhle (1992) is 'it is true that', can be formulated according to Gutzmann and Castroviejo Miró (2011) as (1).
(1) $\llbracket \operatorname{VERUM}(p) \rrbracket \approx$ "It is the case/true that $p$ "
(to be discarded) (Gutzmann and Castroviejo Miró 2011, p. 151)

When the operator verum is focused, standard alternative semantics (Rooth 1992) apply and the relevant alternatives that are generated are 'It is true that $p^{\prime}$ and 'It is not true that $p^{\prime}$.

This proposal is called a Focal Accent Thesis by Gutzmann, Hartmann, and Matthewson (2020): It assumes that there is a verum operator that can get focused, and thus verum focus is a sub-type of focus. Since this proposal by Höhle (1992), the development has been either into what I call Focal Accent Theses 2.0 and Lexical Operator Theses.

Focal Accent Theses 2.0 are theories that get rid of the verum operator, but still consider verum a type of focus, and derive the pragmatics of verum focus marking on another element in the clause such as Goodhue (2018) and Lohnstein (2016). Both Goodhue (2018) and Lohnstein (2016) derive the pragmatics of verum from a general side effect of focus marking in order to eliminate the need for a specific verum operator in the C head. According to Lohnstein $(2012,2016)$ focus on the mood operator, which is present for independent reasons, gets the pragmatics of verum. According to Goodhue (2018), whose proposal is based on analyses of polarity focus such as Samko (2014) and Wilder (2013), verum is a pragmatic side effect of focus marking on the Polarity head. Verum focus is licensed by the presence of a salient alternative with contrasting polarity by the same Roothian principle that applies for all other foci, i.e., context needs to make available some antecedent that is a member of the set of focus alternatives that is distinct from the ordinary semantic value.

Looking at how verum is realized in comparison to how focus is realized in Wolof, it is clear that verum marking in Wolof is not related to focus. Therefore, I will not attempt to analyze it as a type of focus.

The first to posit a non-focus-based account for verum, Romero and Han (2004), claimed that verum is a conversational epistemic operator. A crucial difference with Höhle (1992), who also assumes verum to be an operator, is that in Romero and Han's account the operator is only present when it is overtly realized. Whereas Höhle (1992) derives half of the meaning of verum focus using general focus theory, Lexical Operator Theses, such as Romero and Han (2004) write all of it into the lexical meaning of the operator.

Romero and Han's definition of verum, abbreviated as For-SURe-CG is given in (2). While this is not the ultimate definition of verum I will use, this definition will be relevant again in Chapter 7, where I propose that the particle de expresses certainty about adding a proposition $p$ to the Common Ground (CG).
(2) $\llbracket \operatorname{vERUM}_{\mathrm{I}} \rrbracket^{\mathrm{gx} / \mathrm{i}}=\lambda p_{\langle s, t\rangle} \lambda \mathrm{w} . \forall \mathrm{w}^{\prime} \in \operatorname{Epi}_{\mathrm{x}}(\mathrm{w})\left[\forall \mathrm{w}^{\prime \prime} \in \operatorname{Conv}_{\mathrm{x}}\left(\mathrm{w}^{\prime}\right)\left[p \in \mathrm{CG}_{\mathrm{w}}{ }^{\prime \prime}\right]\right]$
$=$ FOR-SURE-CG ${ }_{x} \quad$ (Romero and Han 2004, p. 627)
(2) says that each world $w^{\prime}$ that conforms to speaker $x^{\prime}$ s knowledge, Epi $i_{x}(w)$, is such that all the worlds $w^{\prime \prime}$ in which $x^{\prime}$ s conversational goals in $w^{\prime}, \operatorname{Conv}_{x}\left(w^{\prime}\right)$, are fulfilled are worlds $w$ " in which $p$ is in the CG. This can be paraphrased as "I am sure that we should add the proposition $p$ to the common ground" (Romero and Han 2004, p. 627), with 'I am sure' being the speaker's epistemic state and 'should add $p$ to the CG' their conversational goal. Thus, if we take a $p$ 'Peter writes a book' and we feed it to the verum operator, $\operatorname{VErUm}(p)$ will give us the proposition 'I am sure that we should add the proposition that Peter writes a book to the common ground'.

A reason for them to treat verum as an operator distinct from focus is that in English verum can not just be realized by a focal accent, but also by adverbs like really or by fronting a negation in polar questions (Ladd's (1981) 'outer negation polar questions'). As for the epistemic part, Romero and Han (2004) notice that verum has similar properties to epistemic expressions like must, be certain that and be sure that in that it expresses certainty. However, verum, according to them, is used not to assert that the speaker is certain about the truth of $p$, but about the fact that $p$ should be added to the common ground, hence a conversational operator. The difference between expressions like be sure and verum are illustrated in (3).
(3) a. I really am tired.
b. ?I am sure I am tired.

English, (Romero and Han 2004, p. 626)
(3-b) is odd, because the speaker asserts certainty of their own feelings and presumably the speaker knows how they feel and should not feel the need to emphasize that, whereas ( $3-a$ ) is felicitous because the speaker asserts their certainty not over $p$ 'speaker is tired' itself, but that $p$ should be added to the CG.

Gutzmann and Castroviejo Miró (2011), using the concept of use-conditional meaning, refine the theory proposed in Romero and Han (2004). In Romero and Han (2004) verum is truth-conditional. Therefore, that account predicts that the proposition 'I am sure that we should add $p$ to the $C G^{\prime}$ is at-issue, i.e. the content of the assertion made with the sentence. However, this proposition cannot be targeted. Gutzmann and Castroviejo Miró (2011) illustrate with (4) that denying a verum statement targets the same proposition as denying a plain assertion.
(4) A: Karl DOES write a book.

```
B: That's not true.
(means 'Karl DOESN'T write a book' and not 'You are NOT certain that we should add 'Karl writes a book' to the CG') (Gutzmann and Castroviejo Miró 2011, p. 153)
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Gutzmann and Castroviejo Miró (2011) propose that the reason that verum cannot be targeted is because it is not truth-conditional, but use-conditional. This means that if we take $p$ and feed it to VERUM, we get an additional proposition which expresses the conditions in which an utterance can be felicitously used, i.e., a use-conditional proposition. The at-issue meaning of the sentence remains $p$. Since this approach separates meaning in a truth-conditional and a use-conditional layer, and verum only contributes to the latter, it can account for the non-targetability of verum. In this way they maintain the idea from Romero and Han (2004) that verum is a lexical operator, and additionally account for the fact that is is not part of the at-issue content.

Another issue with (3) is that it overgenerates the contexts for verum, as it predicts a verum utterance to be felicitous discourse-initially if a speaker is sure that $p$ should be added to the CG. To solve this, Gutzmann and Castroviejo Miró (2011) replace to content of (2) by a different discourse related component which is a separate performative that expresses the speaker's wish to downdate $? p$ from the QUD. ${ }^{1}$ Gutzmann and Castroviejo Miró (2011) use a QUD framework based on Engdahl (2006), who in turn adapted it from Ginzburg (1996) and Roberts (1996). The specific QUD terminology used in this framework is explained in (5).
(5) Question under Discussion (QUD) (Engdahl 2006, p. 95)
a. QUD: A partially ordered set that specifies the currently discussable issues. If a question $q$ is maximal (on top of the stack) in QUD, it is permissible to provide any information specific to qusing (optionally) a short answer.
b. QUD update: Put any question that arises from an utterance on QUD.
c. QUD downdate: When an answer a is uttered, remove all questions resolved by a from QUD.

Gutzmann and Castroviejo Miró (2011) propose that verum has the performative aspect in (6).
(6) $\quad \llbracket \operatorname{VERUM}(p) \rrbracket^{c} \approx$ The speaker $c_{S}$ wants to downdate ? $p$ from $\operatorname{QUD}(c)$.
(Gutzmann and Castroviejo Miró 2011, p. 160)

[^12]According to (6) verum is an attitude of the speaker, who wants to downdate ? $p$ from QUD, i.e., the speaker insists on settling the issue of 'whether $p^{\prime}$. If $? p$ is the current QUD, an ordinary assertion of $p$ would already be a proposal to add $p$ to the CG, which, if accepted, would also downdate ? $p$ from QUD with $p$. That is to say, with normal assertions downdating happens automatically. However, when for some reason there is controversy about how ? $p$ should be settled, the speaker uses verum to make it explicit that they want to downdate the question 'whether $p^{\prime}$. In this way they express that they do not want to attend to the question of 'whether $p$ ' anymore after this move. This account does not rely on verum being emphasis on the truth, unlike Höhle (1992), nor certainty of adding something to the CG, unlike Romero and Han (2004). Nonetheless, both of these effects follow from the fact that if someone asserts $p$ and wants to explicitly downdate ? $p$ from QUD, they must also be certain that $p$ should be added to the CG and that $p$ is true.

Gutzmann, Hartmann, and Matthewson $(2017,2020)$ revisit the definition in $(6)$, and argue that it should be more restrictive. They motivate this with the example in (7), which illustrates that being very passionate or excited about something, even in the absence of controversy, can be a reason to make it explicit that you want to downdate ? $p$ from QUD, nonetheless this is not enough to license verum.
(7) Context: B really wants to have pizza for dinner and will be sad if she does not get any. She already told A that she wants pizza, but A forgot and is not sure anymore.

A: I don't remember what you said. Do you want pizza for dinner?
B: \#I DO want pizza for dinner.
(Gutzmann, Hartmann, and Matthewson 2020, p. 50)
Therefore, Gutzmann, Hartmann, and Matthewson (2020) propose the revised informal definition in (8), and note that the actual semantics of verum must be more complicated.
(8) $\llbracket \operatorname{Verum}(p) \rrbracket^{c} \approx$ The speaker $c_{S}$ wants to prevent that $\operatorname{QUD}(c)$ is downdated with $\neg p$. (Gutzmann, Hartmann, and Matthewson 2020, p. 39)

Considering that the definition in (8) is informal, it is not entirely clear how 'prevent' should be interpreted. Matthewson (2017, p. 15) paraphrases (7) as "the speaker has reason to believe that $\neg p$ is threatening to enter the common ground". As I feel this
paraphrase is more precise than (7), since it avoids the term 'prevent', this the definition that I will use in the rest of the chapter. ${ }^{2}$

Additionally Gutzmann, Hartmann, and Matthewson (2020) propose the precondition in (9), namely that "the propositional content of the verum utterance should correspond to the current question under discussion" (Gutzmann, Hartmann, and Matthewson 2020, p. 38).
(9) $\llbracket \operatorname{VERUM} \rrbracket \rrbracket^{u, c}(p)=\checkmark$, if $\{p, \neg p\}=\operatorname{QUD}(c)$
(Gutzmann, Hartmann, and Matthewson 2020, p. 38)
In (9) felicity is indicated with a checkmark. The super-scripted $u$ indicates that the meaning is use-conditional.

A downside of the theory that verum is not focus is that, by aiming for a unified crosslinguistic analysis of verum, it would be forced to regard the fact that verum marking ostensibly involves focus in English and German as mere coincidence. Gutzmann (2012, p. 26) himself even notes that the German example in (10) is problematic for his Lexical Operator Thesis, as the focus sensitive particle sogar 'even' associates with the verum focus marked verb hat 'had'. The association of a focus sensitive particle with a verum-marked verb points in the direction that verum is focus in German.
(10) Clyde HAT sogar die Stelle bekommen.
C. has even the job gotten
'Clyde even GOT the job.'
German, (Geilfuß-Wolfgang 1996, p. 62)
However, as Goodhue (2018) points out, different marking strategies cross-linguistically for the same thing would not be unique to verum. Goodhue (2018) illustrates this with evidentiality, of which it is known that it can be marked by different devices across languages. Therefore it is not necessary to search for a unified analysis of verum. Thus, while verum can be realized by focus marking - be it on polarity, per Goodhue (2018), or mood, per Lohnstein (2012), I remain agnostic about this - in English, German and similar languages, it is not realized as such in Wolof and thus Focal Accent Theses are not suitable for languages like Wolof.

[^13]Gutzmann, Hartmann, and Matthewson (2020) propose that the natural class of the contexts that license verum are contexts in which the speaker wants to prevent the QUD from being downdated with $\neg p$, however they do not show how all the possible verum contexts follow from this attitude. I will attempt to do so in Section 5.3. First, in the next section, I show how the Wolof data are in line with the account proposed by Gutzmann, Hartmann, and Matthewson (2020) on three levels: i) verum is not marked as focus in Wolof, ii) double focus marking is ungrammatical in Wolof, though focus and verum marking can co-occur iii) verum marking is always optional is same-polarity answers to polar questions.

### 5.2 Verum is not focus in Wolof

The Wolof data described in Chapter 4 Section 4.2 are in line with the cross-linguistic data presented in Gutzmann, Hartmann, and Matthewson (2020), who show that in Bura, South Marghi (Chadic), Kwak'wala (Northern Wakashan) and Gitksan (Interior Tsimshianic) verum is realized with particles that are unrelated to the strategies used for focus marking in those languages. ${ }^{3}$ These data favor a Lexical Operator Thesis of verum. The predictions that a LOT approach makes, according to Gutzmann, Hartmann, and Matthewson (2020), are that if verum is an independent operator, i) it should not systematically be realized across languages in a parallel way to how focus is realized, ii) its possible co-occurrence with focus marking should not depend on the language's restrictions regarding multiple focus marking and iii) it should be optional in responses to neutral polar questions. They show that these predictions are borne out.

First, in the languages under discussion, verum and focus are marked using different strategies. As an example, consider Gitksan, where focus is marked by fronting, illustrated for object focus in (11), and verum by the pre-verbal particle ( $k^{\prime}$ )ap, as in (12).
(11) A: ‘What did John eat?'

B: Suusiit=hl gub-i=s John.
potato=cn eat-TR=PN John
'John ate POTATO.' object focus
Gitksan, (Gutzmann, Hartmann, and Matthewson 2020, p. 25)
3 Even in the West Germanic languages, which all use a focal accent in their realization of verum, there is sometimes additional lexical material: while German only employs a focal accent, English employs do-insertion which carries the focal accent and Dutch adds the particle wel in disagreement verum and inderdaad in agreement verum, which carry the focal accent (Gutzmann, Hartmann, and Matthewson 2020).
(12) A: 'You didn't come to my house!'

B: K'ap 'witxw 'nii'y goo=hl wilb-in gi. VERUM arrive 1SG.III LOC=CN house-2SG.II PR.EVID 'I DID go to your house!'
verum
Gitksan, (Gutzmann, Hartmann, and Matthewson 2020, pp. 26-27)

We have seen in Chapter 4 that verum in Wolof is also not marked with any of the focus conjugations, but with particles. An example of focus marking, (31-a) from Chapter 2, in this case verb focus with dafa, is repeated here as (13).
(13) a. Tóx-u-ma, dama-y fo.
smoke-NEG-1SG VFOC.1SG-IPFV play
'I'm not smoking, I'm PLAYING (with the cigarette).' verb focus
(Robert 2010b, p. 31)

Example (54) from Chapter ??, on the other hand, shows that verum in Wolof is marked with particles, in this case de, kat or kay.
(14) A: 'Today Fatou doesn't look good.'

B: (Anxkay,) rafet na de/ kat/ kay! yes.REV be.pretty 3SG.CLFOC DE KAT KAY '(Yes), she DOES look good!'
verum

Thus, the fact that in Wolof verum is marked by particles and focus by verbal conjugations provides further evidence for Gutzmann, Hartmann, and Matthewson's argument.

Second, Gutzmann, Hartmann, and Matthewson (2020) show that the possible cooccurrence of verum and focus marking does not depend on the possible co-occurrence of multiple marked foci. For illustration a verum+focus sentence, consider the Gitksan example from Gutzmann, Hartmann, and Matthewson (2017) in (15).
(15) A: Limxt yé gyaxxw.
sing DM grandfather last.night
'Grandpa sang last night.'
B: Nee, (ap) 'nit dziits' limxi=t gyaxxw
NEG VERUM 3SG.III grandmother sing=3 last.night
'No, it's GRANDMA who sang last night.' Gitksan, (Gutzmann, Hartmann, and Matthewson 2017, p. 36)

Bura disallows verum and focus, though it allows multiple foci. Moreover, Kwak'wala
allows verum and focus to co-occur, though it disallows multiple foci. Wolof falls in the same category as Kwak'wala: though multiple marked foci in a single clause are ungrammatical, verum and focus marking can co-occur. Consider again (39) from Chapter 4, repeated here as (16). Though most of the verum utterances I collected were all-given, (16) shows that under the right conditions, in principle verum and focus can co-occur.
(16) A: Ah! Kanaara cuuc!

INTRJ duck chick
'Oh! A baby duck!'
B: Kanaara?
'A duck?'
$\begin{array}{llll}\text { A: } \begin{array}{l}\text { Cuuc laa wax de, wax-u-ma kanaara ci bopp-am. } \\ \text { chick ofoc.1sG say DE say-NEG:1sG duck Loc head-3sG.POSs }\end{array} & \\ & \text { 'I said it was a CHICK, I didn't say it was a duck itself.' } & \text { Dakar }\end{array}$
Both (15) and (16) conform to the condition that ? $p$ threatens to be downdated from QUD with $\neg p$. The question then is why (15) and (16) are not suitable contexts for verum marking in English. I elaborate on this difference in Section 5.4.

Crucially, (17), illustrating Subject+Verb focus, shows that two focus markings cannot occur in the same clause in Wolof. The focus is marked on the verbal conjugation, which can only occur once per clause. Example (17) shows the ungrammaticality of two verbal conjugations in one clause. Thus, rather than marking both the subject and the verb with separate focus markers, Subject+Verb focus in Wolof is syncretic with sentence focus. See Assmann et al. (2019) for more information on this syncretism.
(17) A: 'What happened to Jean?'

B: Alkaati b-i jàpp na ko. police.officer nc.sG-def.Prox catch clfoc.3sG 3sG.O B': *Alkaati b-i moo dafa jàpp ko. police.officer nc.sG-DEf.Prox sfoc.3SG vFoc.3SG catch 3SG.O 'The police officer arrested him.' elicited

As for Gutzmann, Hartmann, and Matthewson's third point, that verum in answers to polar questions is always optional, this is borne out by data from Germanic languages as well as the additional cross-linguistic data in their 2020 paper. Wolof again corroborates this. We have seen in (55) in Chapter 4, repeated here as (18), that positive answers to
positive polar questions are realized without any particle, unless the speaker assumes that the question is not entirely neutral. This is discussed in the next section.
(18) A: Ndax danga-y wëy?

Q VFOC.2SG-IPFV sing
'Do you sing?'
B: Waaw, dama-y wëy.
yes VFOC.ISG-IPFV sing
'Yes, I sing.'
elicited

### 5.3 Accounting for the verum contexts

The question now is what all the contexts from Section 4.1 in Chapter 4 have in common. Taking the last definition of verum in Gutzmann, Hartmann, and Matthewson (2020), repeated here as (19) and the discourse condition as (20), in this section I go through the declarative contexts from Chapter 4 and see how they can be accounted for as instances of $\neg p$ threatening to enter the common ground. The numbers refer to the numbers in the list of verum contexts presented in Chapter 4.
(19) $\llbracket \operatorname{Verum}(p) \rrbracket^{c} \approx$ The speaker $c_{S}$ wants to prevent that $\mathrm{QUD}(c)$ is downdated with $\neg p$.
(Gutzmann, Hartmann, and Matthewson 2020, p. 39)
(20) $\llbracket$ VERUM $\rrbracket^{u, c}(p)=\checkmark$, if $\{p, \neg p\}=\operatorname{QUD}(c)$
(Gutzmann, Hartmann, and Matthewson 2020, p. 38)
First, let us turn to the contexts in which verum is always infelicitous, namely in utterances which are discourse-initial, 1 , in answers to constituent questions, 3 , in answers to neutral questions, 2 , and agreement with a presupposition, 4 .

The infelicity of verum in context 1 , discourse initial contexts, and context 3 , answers to constituent questions, is accounted for by the discourse condition in (20): the presupposition that the polar question ? $p$ is on top of the QUD stack rules out verum in discourse initial contexts and answers to constituent questions, since in both of those cases the QUD is a constituent question.

The infelicity of verum in neutral polar questions, context 2 , is accounted for by (19). Since the person who asks the question is not biased for any of the answers $p$ or $\neg p$, there is no reason for the person who answers to believe that $\neg p$ threatens to enter the CG.

The infelicity of verum in context 4, agreement with presuppositions, is accounted for by the fact that presuppositions are per definition agreed upon by all discourse participants and are thus not under discussion (Matthewson 2020).

I now turn to the contexts in which verum is felicitous. Context 1 a , answer to a ' $p$ or $\neg p^{\prime}$ question, is predicted to be a felicitous context for verum, because the kind of context that licenses such a question in the first place, namely a cornering context (Biezma 2009), is such that there is already a debate about which of the two alternatives, $p$ or $\neg p$, should be added to the CG. Contexts 1 b and 1 c in Chapter 4 Section 4.1 are examples of biased questions. (6) from Chapter 4 , an answer to a biased question, is repeated here as (21).
(21) A: You don't sing, right?

B: I DO sing.
By asking a question biased for $\neg p$, A signals that they think that $\neg p$ is more likely to be added to the CG than $p$, and vice versa for a question biased for $p$. When B does not agree that the question should be settled with the proposition that A is biased for, but the complement one, they use verum to indicate that they want to prevent the QUD from being downdated with $\neg p$.

With the biased 'why'-questions, such as (7), repeated here as (22), B interprets the question as biased for $\neg p$, because normally, per the Maxim of Quality, speakers only say things which are true. By asking why B said something, A questions whether what $B$ said is really true.
(22) A: Why do you say that morphemes are a part of syntax?

B: Because they ARE a part of syntax.
The agreement, as well as same polarity, contexts are harder to capture. First of all, it is not entirely clear when exactly verum is felicitous in an agreement scenario. Same polarity answers in polar questions - which I subsume under the label 'emphatic agreement', together with same-polarity responses to assertions - are always optional. An example of emphatic agreement in an answer to a polar question is given in (23) and in response to an assertion in (24).
(23) A: Did you declare everything?

B: Yes, I DID declare everything.
J. Gray p.c.: 'Sounds good if B is a bit confrontational; like that A's question
was not just an unbiased innocent question, but that A was suggesting somehow that B had in fact NOT declared everything.'
(24) A: You declared everything.

B: \#I DID declare everything.
Gutzmann, Hartmann, and Matthewson (2017) suggest that for (23) to work the answerer needs to assume that the asker doubts $p$. Matthewson (2020) characterizes this as the speaker believing that the addressee doubts $p$. Thus, in these cases, the speaker thinks that the interlocutor is actually committed to $\neg p$. A possible scenario for this accommodation is one in which the answerer thought that $p$ was already in the CG, but now hears the question ? $p$ and infers that $p$ must not be in the CG. This type of emphatic agreement answers to questions should be able to be followed by 'Why do you ask?' or 'I thought you knew'. Thus, the speaker uses verum to make sure that the QUD is not downdated with $\neg p$. In agreeing responses to assertions, such as (24), it is hard to imagine the appropriate context in which B assumes that A believes $\neg p$, despite A asserting p. 4

In Section 4.1 of Chapter 4 I have attempted to isolate the contexts in which emphatic agreement is just as felicitous as normal affirmation: reactions to predicates of personal taste, the antecedent clause of concessives and contexts in which a speaker has forgotten that they thought $p$ and are now reminded of it.

Let's start with the last. Context 3 b are situations in which the speaker has forgotten $p$, as in (25), or failed to reach the same conclusion as the addressee, despite having the relevant knowledge, as in (26).
(25) A: He hit a career-long 53-yarder against Washington.

B: (That's right.) He DID hit a career-long 53-yarder against Washington. English, (Samko 2014, p. 8)
(26) A: Asamaan s-i la, seet-luw:oo ko.
sky Nc.sG-def.prox croc.3sG see-Neg:2sG 3sG.O
'It's the sky, you didn't see it.'
B: Nuage yeek yooyu, waaw asamaan s-i
cloud.fr NC.PL.DEF.PROX.COM NC.PL-DEM yes sky NC.SG-DEF.PROX
la de.
cFoc. 3 SG De
'The clouds and those other things, yes it IS the sky.' Dakar

[^14]In both (26) and (25) the dispute about how to settle the QUD is not between the discourse participants, but within the reasoning of the speaker themself. In (25) the speaker was committed to $p$ before, but then they forgot about it, making them not committed to $p$ anymore. In (26) the speaker is not committed to $p$, but based on the contextual evidence, they should be. Thus, both of these contexts can be captured as instances that look like agreement, but are actually, like (23), cases in which $\neg p$ threatens to enter the CG.

However, I think that the other two agreement contexts, predicates of personal taste and the antecedent of a concession, are hard to capture as instances of $\neg p$ threatening to enter the CG. For subjective assertions, context 3 a, verum is felicitous without the speaker necessarily believing that the interlocutor is committed to $\neg p$. The difference between example (24) - repeated here as (27)- and (28) illustrates this.
(27) A: You declared everything.

B: \#I DID declare everything.
English
(28) A: That rabbit is cute!

B: It IS cute!
English
J. Gray p.c.: 'Sounds natural, particularly if followed by a tag like 'isn't it?"

While in (27) the infelicity of B's answer is in line with the proposal that verum requires the speaker believing that $\neg p$ threatens to enter the CG, in (28) B can reply with emphatic agreement. (28) seems to convey actual agreement with the interlocutor. It is not immediately clear why verum should be licensed in (28), but not in (27) (without further assumptions on the speakers part).

While the details of the exact difference between (27) and (28) and their interaction with verum are outside the scope of this thesis, I suggest that the answer lies in the difference between how speakers can react to factive assertions such as (27) versus subjective assertions such as (28). Assertions containing predicates of personal taste are subjective, and can thus give rise to faultless disagreement (Kölbel 2004; Lasersohn 2005; Stojanovic 2007). That is to say, while disagreement with a factive assertion leads to a conversational crisis (Farkas and Bruce 2010), in reaction to subjective assertions such as A's assertion in (28) speaker B could disagree without there being a crisis. This is because in (28) each speaker is asserting $p$ according to their own taste standards. Thus, the question $? p$ has not been downdated by A's assertion alone, as the other discourse participants can still be committed to $\neg p$.

As for the concessive contexts, context 3c, consider again (19) from Chapter 4, repeated here as (29).
(29) A: Is he a good candidate? Does he work hard?

B: (Yes,) he DOES work hard ${ }_{c T}$, but his results are miserable...
English, (Wilder 2013, p. 169)
The antecedent clause of the concessive in (29) answers a sub-question 'Does he work hard?' of a larger question 'Is he a good candidate?'. The other sub-question 'How are his results?', however, is the one that is decisive for the answer of the super-question. Again, here it seems that the speaker actually agrees with the interlocutor when they use verum.

A focus-based account, such as Goodhue (2018), can subsume an example such as (29) under cataphoric focus: a focus construction in which the antecedent only comes after the focus itself (Rooth 1992). According to Goodhue (2018, p. 38) the combination of the contrastive topic marking on 'work hard' and the focus marking on 'does' conveys that "there is something else that the candidate does not do".

It is unclear how this can be captured as an instance of wanting to prevent $\neg p$ from entering the CG. While the speaker does seem to want to prevent 'he is a good candidate' from entering the CG, $\neg p$ in this case would be 'he doesn't work hard', which is not under debate.

Summarizing, in this section I have attempted to illustrate how verum contexts introduced in Chapter 4 Section 4.1 can be considered situations in which the speaker believes that $\neg p$ threatens to downdate the QUD. While most contexts could be accounted for, two of the emphatic agreement cases, namely predicates of personal taste and concessives, posed problematic for this approach, as in these cases it seems that all discourse participants are committed to $p$.

### 5.4 Variation in verum contexts and verum marking

### 5.4.1 The fine-grained distribution of verum in Wolof

The previous section showed the general discourse conditions for verum that apply to both English and Wolof. However, the more fine-grained distribution of verum in Wolof differs from that in English. This could be seen in example (16), repeated here as (30).
(30) A: Ah! Kanaara cuuc! INTRJ duck chick 'Oh! A baby duck!'
B: Kanaara?
'A duck?'
A: Cuuc laa wax de, wax-u-ma kanaara ci bopp-am. chick ofoc.1sG say de say-Neg-1sG duck loc head-3sG.poss 'I said it was a CHICK, I didn't say it was a duck itself.'

Dakar
(16) shows that narrow focus marking and verum can co-occur in Wolof. While verum and narrow focus marking can in principle co-occur in English (to be discussed below), the equivalent of A's second utterance in (30) with verum and narrow focus marking in English, i.e., I DID say it was a CHICK, is not felicitous.

Another example of verum in Wolof in a situation where it wouldn't be possible in English is found in B's utterance in (31), in which A and B describe a picture that can be seen as either depicting one or two people.
(31) A: 'One sees two faces...'

B: Ñaar-i kanam, f-an? B-enn nit la de! two-pl face nc.sG-Q NC.sG-some person 3sG.CFOC DE 'Two faces, where? It is one person!'

Dakar
While A sees two faces in the picture, B only sees one. Thus when A says 'There are two faces', B corrects her and says that there is only one person in the picture. B uses $d e$ in this utterance, even though there is no overt target 'it is not the case that there is only one person' in the context. Nit 'person' is made salient by kanam 'face'. In English this would lead to deaccenting of person, but it would not be possible to use verum marking in the English equivalent, as the focal accent would be on the contrastive one.

Both (30) and (31) are examples in which verum marking co-occurs with narrow object focus marking. However, there are also examples of Wolof sentences with verum and clausal focus marking in contexts that would not license verum in English. Consider the example in (32). I recorded a consultant (A) at the market while she was asking for prices of several different vegetables. When she asks for the price of onions, the salesman (B) says 500 CFA. The follow-up is presented in (32):
(32) A: Quatre cent baax-ul?
four.fr hundred.fr good-NEG.3SG
'Is 400 CFA not good?'

B: Cinq cent baax na de! five.FR hundred.FR good CLFOC.3SG DE ' 500 CFA is a good price!'

Thiès
In (32) the woman asks whether 400 CFA is good, thus implying that 500 CFA is too high. The salesman then insists that he wants to settle the question 'Is 500 CFA a good price for onions or not?' with $p$ ' 500 CFA is a good price'. Since the truth of whether 500 CFA is a good price for onions is under debate, verum is thus predicted to be felicitous in (32), and in Wolof it is. Note, however, that the English equivalent of B's utterance, i.e., 500 CFA IS a good price with a verum accent, is not felicitous in the context of (32).

In (33) the salesman makes a similar utterance to the one in (32), but this time the woman did not explicitly challenge his previous statement.
(33) The salesman is willing to give the woman something that costs 400 CFA for 300 CFA. After she is still seems hesitant, he says:
B: Trois cent baax na de! three.FR hundred.fr be.good ClFOC.3SG DE ' 300 CFA is a good price!'

Thiès
The utterance of the salesman in (33) is very similar to (32), except that in (33), unlike in (32), the woman did not verbally claim that 300 CFA is not a good price. She just did not reply at all, giving him the impression that she is not satisfied with the offer. In English, this context would not license a verum accent, as shown in (34).
(34) A: I will sell it for 10 euros.

B: ...
A: \#10 euros IS a good price!
While it is clear that also in the English example in (34), B's silence can be taken to mean that ' 10 euros is not a good price', this is not enough to make the proposition the target of the verum focus. It has to be given in the discourse. In Wolof, however, this context is enough to license de. ${ }^{5}$

[^15]Thus, similarly to what we have seen in the translations of the other Wolof examples in this section, and the Gitksan example in (15), the conditions for licensing verum in English are more strict than in those languages.

Matthewson (2017) also notices that there is micro-variation in the discourse conditions for verum cross-linguistically. While Brazilian Portuguese (Romance, IndoEuropean), English and Gitksan can all be captured by the QUD approach proposed by Gutzmann, Hartmann, and Matthewson (2017), the Korean (Koreanic) particle -ci seems to behave more like the operator proposed by Romero and Han (2004). Moreover, Gitksan and English also have different discourse conditions for licensing verum (Gutzmann, Hartmann, and Matthewson 2020; Matthewson 2017, 2020).

Matthewson $(2017,2020)$ proposes that verum in English requires that the all material in the verum utterance has to be given and therefore the target of the verum sentence has to be uttered in the discourse, whereas in Gitksan it can also be entailed or implied. This explains why in Gitksan an example such as (15), repeated here as (35), is felicitous with verum marking: in a context where only one person sang last night 'Grandpa sang' entails 'Grandma didn't sing'.
(35) A: Limxt yé gyaxxw.
sing DM grandfather last.night
'Grandpa sang last night.'
B: Nee, (ap) 'nit dziits' limxi=t gyaxxw NEG VERUM 3 SG.III grandmother sing=3 last.night 'No, it's GRANDMA who sang last night.' Gitksan, (Gutzmann, Hartmann, and Matthewson 2017, p. 36)

Note that in the context of (35) the parallel English sentence with verum and a focal accent on the corrective focus, i.e., GRANDMA DID sing last night, is out. We can apply the same principle to the Wolof data. In (32) asking whether 400 is not a good price implies that 500 isn't. In (33) not saying anything also implies that 500 CFA isn't a good price. In (31) having two faces implies there being two people.

However, it seems too strong to say that the target of the verum sentence in English has to be given. Recall from contexts $2 b$ in Chapter 4 Section 4.1 that verum and focus can co-occur in English too, as has been observed by Wilder (2013), who gives a focus-based analysis for these constructions. If the target of the verum sentence would have been all given, it wouldn't be possible to have an additional pitch accent in a verum sentence, such as in (36), from Wilder (2013).
(36) Dr. Smith isn't a very good doctor, but he DOES have a lot of PATIENTS. English, (Wilder 2013, p. 156)

In (36) the target proposition for he does have a lot of patients - that he doesn't have a lot of patients - has not been previously uttered and is thus not given, rather it is merely implied that someone who isn't a good doctor doesn't have a lot of patients. Thus, English, like Wolof and Gitksan, allows verum to co-occur with a(nother) narrow focus. Nonetheless, the Wolof and Gitksan examples with narrow focus and verum were not felicitous with a multiple focus accent in English. Consider the English variant of (31) in (37).
(37) A: You can see two faces...
$p$ implied
B: Two faces, where? These are NOT two people!
$\neg p$ asserted
B': \#Two faces, where? This IS one person!
$q$ asserted, $\neg p$ entailed
B": \#Two faces, where? This IS ONE person!
double accent
What then is the difference between (36) and (37)? While the full answer is outside of the scope of this thesis, I tentatively propose that it has to do with whether the implication is only denied, as in (36), or an alternative is asserted as in the Gitksan and Wolof cases. In (36) the speaker only denies the implied proposition $p^{\text {'Dr }}$. Smith doesn't have a lot of patients'. However, in the Wolof and Gitksan examples presented here, the speaker not only denies $p$, but also advocates for the truth of an alternative proposition $q$.

In (37), the B utterance is felicitous with verum in English, although p 'These are two people' is not given, but only implied. $\mathrm{B}^{\prime}$, on the other hand, which corresponds to the original Wolof example in (31) and in which the speaker not only denies $\neg p$ but also actively commits to $q$, is not felicitous in the context of (37). Even with multiple accents, such as the B" utterance, the sentence in infelicitous in the context of (37) in English.

All the Wolof data shown in this section are naturally occurring examples, and, coincidentally, all of them are with the particle de. Further research should investigate whether all the other particles that can occur in verum contexts can also occur in these contexts. In Chapter 10 I show an example of kay following a topic in verum contexts that are not all-given, but also implied or entailed.

### 5.4.2 Verum marking and (broad) predicate focus marking

We have that verum can co-occur with narrow focus marking, such and object focus in (16), in which case it was the correction of 'duck' to 'chick' that licensed the narrow focus marking. A remaining question then is what the role of focus is in verum utterances with broad predicate focus. Recall from Chapter 2 that the predicate focus conjugation can mark either narrow verb or broad predicate focus.

I have a naturally occurring example with the verb rafet 'be pretty' with a predicate focus conjugation, example (47) in Chapter 4, repeated here as (38). However, in the elicitation contexts with the stative verb rafet all but one consultant volunteered the clausal focus form in the positive+disagreement response. An example from one speaker is repeated here as (38). The one speaker who didn't use clausal focus, used predicate focus instead.
(38) A: Fatou dafa rafet.
F. VFoc.3sG be.pretty.
'Fatou is pretty.'
B: Dafa rafet kay!
vFOC.3SG be.pretty KAY based on natural ex. (47)
$B^{\prime}$ : Rafet na kay!
be.pretty CLFOC.3SG KAY based on the elicited answers
'She IS pretty!'
Robert (2010a) has observed that there is a relation between verum pragmatics and the perfective clausal focus conjugation in stative verbs. With stative verbs, the perfective clausal focus form $n a$, "indicates that there is no doubt over the assertion and conveys the speaker's viewpoint" (Robert 2010a, p. 7) and gives the example in (39).
(39) A: Bubu b-ii, dafa rafet. boubou nc.SG-dem.prox this vFoc.3SG be.pretty 'This boubou is beautiful.'
B: Rafet na (de)!
be.pretty clfoc.3sG DE
'It is indeed (beautiful).' - 'It is (definitely) a beautiful one.' (agreement of the speaker)
(Robert 2010a, p. 8)
In (39) A's utterance contains the verb focus conjugation dafa, while B's utterance, which is in agreement with A's, is with the sentence focus conjugation na and optionally also with the particle $d e$.

Thus, there seems to indeed be a relation between the use of the clausal focus perfective conjugation in stative verbs and the marking of verum, but the predicate focus conjugation is also used. It is not clear to me at this point what the exact difference is between a verum utterance with a predicate focus conjugation and with a sentence focus conjugation. ${ }^{6}$

In the next section I discuss another aspect of cross-linguistic variation in verum marking: the difference between the marking of agreement and disagreement verum.

### 5.4.3 Agreement and disagreement verum

Wolof marks more specific distinctions in verum contexts than languages like English, or the languages reported in Gutzmann, Hartmann, and Matthewson (2020). This section shows that the way the verum space is carved cross-linguistically can differ based on agreement and disagreement, or based on counter-assertion and disagreement with something that hasn't been asserted.

Watters (1979) uses two different terms for what has been called polar focus by Dik and Van der Hulst (1981): polar focus and counter-assertive polar focus. Following up on this distinction, Kocher (2019a,b) differentiates three sub-types of verum: emphatic agreement, counter-assertion and 'true verum'. For Kocher (2019a) this distinction is relevant, as Brazilian Portuguese employs two different strategies for marking verum: the particle sim is placed after the verb in counter-assertions, as in (40), and before the verb in a 'non-counter-assertive' verum sentence, as in (41).
(40) A: 'Felipa is not going to the party.'

B: Vai sim!
go.3SG.PRES SIM
'She IS going!' counter-assertion, Brazilian Portuguese
(Kocher 2019a, p. 14)
In (40) the speaker disagrees with what has been asserted and asserts the opposite.

[^16]In (41) the disagreement is not with what the addressee has asserted, but with the implicature from 'I don't feel like it': 'I will not go'.
(41) Naõ tenho vontade, mas sim vou.
not have.1sG will but sim go.1sg
'I don't feel like it, but I AM going.' 'true verum', Brazilian Portuguese
(Kocher 2019a, p. 4)
While in Gutzmann, Hartmann, and Matthewson (2020) contexts such as (40) and (41) are both considered examples of verum, a language like Brazilian Portuguese makes finer grained distinction between their marking.

Another language which uses different particles for different sub-types of verum is Upper Napo Kichwa (Quechua II, Quechuan). In this Kichwa variety different marking is used for agreement and disagreement verum (Grzech 2019, 2020), thus making the same distinction as Wolof. Consider the Upper Napo Kichwa example in (42).
(42) A: Mana usha-ni.

NEG can-1
'I cannot (do this).'
B: (Kan) usha-ngui=mi.
2SG can-2=MI
'(You) CAN (do this)!' counter-assertion, Upper Napo Kichwa
(Grzech 2019, p. 16)
Grzech (2020) specifies that in (42) speaker B has previously mentioned that the midwife has to bury the placenta (referred to by 'it' in (42)) herself.
(43) A: Apa-chi-k=llara pamba-na?
bring-CAUS-AG=ID.REF bury-INF
'(So) the midwife has to bury (it) herself?'
B: Apa-chi-j=llara pamba-na=rá/\#=mi
bring-CAUS-AG=ID.REF bury-INF=TÁ
'Yes, the midwife DOES have to bury (it) herself.' emphatic agreement,
Upper Napo Kichwa (Grzech 2020, p. 91)
Example (42) is a verum context in which B disagrees with A, and marks their utterance with the epistemic clitic $=m i$. In the emphatic agreement context (43), however, $=m i$ is infelicitous and another epistemic clitic, =tá, is used instead. Again, in English, verum would be expressed in the same way in both contexts. According to Grzech (2020) this
difference stems from the fact that the two clitics encode different epistemic information. $=M i$ encodes speaker-exclusive information that the speaker considers unexpected to the addressee. The clitic =tá, however, encodes information that is shared information between speaker and addressee, and thus expected by the addressee. Grzech (2019, 2020) specifies that dispite occurring in verum contexts, neither enclitic is a dedicated marker of verum nor focus, as they occur in other contexts as well. It seems that, like Wolof, Upper Napo Kichwa uses what it has at hand in verum contexts. In the case of Upper Napo Kichwa, these are epistemic enclitics, and in the case of Wolof these are response particle-like elements. In both languages, this leads to an agreementdisagreement based division in the realization of verum. Thus, Wolof and Upper Napo Kichwa show that verum does not have to be marked by designated verum markers, but that it can be marked by elements which have multiple functions, some of which compatible with verum.

The additional uses of the verum particles have consequences for the type of verum they can mark. While in English verum marking can occur in both counter-assertions and in the antecedent clause of a concessive, in Wolof only the agreement verum particles kay and gaa can occur in the antecedent clause of a concessive. This is elaborated on in Chapter 8.

### 5.5 Summary

In this chapter I have argued that the realization of verum in Wolof can inform the theoretical aspects of verum. The realization of verum in Wolof is most straightforwardly captured by analyses that treat verum as distinct and independent from focus, such as Gutzmann and Castroviejo Miró (2011), Gutzmann, Hartmann, and Matthewson (2020), and Romero and Han (2004). Specifically, I have analyzed verum in Wolof with the definition put forward in Gutzmann, Hartmann, and Matthewson (2020) and Matthewson (2017), who propose that verum is felicitous in contexts in which $\neg p$ threatens to enter the CG. I have attempted to show how this definition can account for the contexts in which verum is encountered. While most context can be captures by this definition, more needs to be said about emphatic agreement contexts with predicates of personal taste and the first clause of a concessive. Furthermore, I have shown how, in line with Matthewson $(2017,2020)$, there is micro-variation in the discourse conditions that license verum in English and in Wolof. Like Gitksan, Wolof in verum is licensed by broader conditions that in English. I have also shown that some languages, among which Wolof, do not mark verum with dedicated verum markers. Depending
on the semantics of the particles that are used to mark Wolof in these languages, the verum space can be carved up differently than it is in English. Brazilian Portuguese marks counter-assertion differently from non-counter-assertive verum and Upper Napo Kichwa and Wolof make a distinction between agreement and disagreement verum.

## 6 Surprise: Disagreement without a linguistic antecedent

### 6.1 Introduction

Having shown in Chapter 4 that there is cross-linguistic variation in the licensing of verum, in the next section of this chapter I show that the particles de and kat can occur in an even wider array of contexts, which cannot be considered verum contexts, namely discourse-initial surprise contexts. Provided that the speaker is surprised, the disagreement particles de and kat are felicitous when there is no linguistic antecedent, even though verum isn't felicitous discourse-initially. I propose that this is possible in Wolof, because the particles de and kat are not pure verum markers. This is thus additional evidence for why in Chapter 4 I have not treated the verum operator as part of the lexical meaning of the particles that can mark verum. verum is not a necessary condition for the particles to occur, but the particles are necessary as an exponent of verum in declaratives.

In Section 6.3 I argue that the reason kat can occur in surprise contexts, is because it is a disagreement particle. Crucially, the agreement particles kay and gaa are infelicitous in these contexts. I propose to refine the anaphor theory of response particles in Krifka (2013) with the observation that response particles can have non-linguistic antecedents. The disagreement particle kat then targets an implicit proposition in discourse-initial surprise contexts. These contexts are also additional evidence that kay, even though it is felicitous in a positive+disagreement context with a linguistic antecedent, is an agreement particle: it cannot occur in discourse initial disagreement contexts, because in those contexts there is no embedded proposition that kay can agree with.

For $d e$, as it is possible in even more contexts than kat, I propose in Chapter 7 that its compatibility with verum is due to its semantics as an intensifier. In Section 6.4 I show interactions between kat and other elements that can express surprise in Wolof.

### 6.2 Disagreement particles in surprise contexts

Recall that one of the criteria for verum that I used in Chapter 4 was that verum particles are not felicitous out of the blue. Example (58) showed that an utterance with a verum particle is infelicitous as a response to 'What happened?'. However, if the speaker is surprised about the proposition $p$, the particles de and kat are possible. I use the term 'surprise' descriptively to encompass situations in which there is a clash between someone's expectations and the content expressed by the proposition. This also includes situations in which the speaker is excited about the content of the proposition. According to Beltrama (2016, p. 67) in cases of excitement the proposition "merely exceed[s] expectations, but [is] not in such a pronounced contrast with plausibility", i.e., excitement is a weaker form of surprise. First, I show non-elicited examples expressing surprise and excitement with kat and de in a sentence final positions.
(1) is from the story Mbëgge ak Coxor 'The Cruel One and the Greedy One' (Njaay and B. Ka 2006). The context in (1) is that the djinn Kekk has taken the form of an old lady and has offered to fulfil the Cruel One and the Greedy One a wish.
(1) Maa-ngi-y wey kat, ndegam k-enn nangu-wut-a jiitu ci 1SG-PROG-IPFV leave KAT since NC.SG-some accept-NEG.3SG-vL precede loc ñaan y -i! wish nc.pl-Def.prox
'I will leave, since no one stepped up to express their wish!'
(Njaay and B. Ka 2006, p. 14)
In (1) the old lady is surprised that after a while neither of the boys have made a wish yet and says she will leave. It is striking that kat does not appear at the right edge of the clause that contains the surprising proposition 'no one expressed their wish', but the clause before it, 'I will leave'. This is similar to example (7) in Chapter 3, in which daal didn't appear at the right edge of the clause expressing the conclusion, but the clause before it. I have no explanation for when or why this happens.

Examples (2) and (3) are from Doomi Golo (B. B. Diop 2003). In (2) Mbiita Saar makes a prediction about the identity of certain men that are about to pass by. Abu Sow is surprised that Mbiita's prediction turned out correct again, and says the utterance in (2).
(2) 'When they had gone away, we jumped back on the ground. Abu Sow said to Mbiita Saar:'

A: Yow nit nga walla rab nga? Maa-ngi la-y 2SG.EMPH person CFOC.2SG or spirit CFOC.2SG 1SG-PROG 2SG.O-IPFV bëgg-a ragal kat, Mbiita! want-vl fear кат M.
'Are you human or are you spirit? I want to fear you, Mbiita!'
(B. B. Diop 2003, p. 404)

In (2) there is no direct antecedent in the text of the form 'do not want to fear Mbiita', rather 'one does not fear their companions' is one of Abu Sow's beliefs. Now, Abu Sow gets evidence that one of his companions might have supernatural powers, thus that there might be reason to fear him. In the English translation of this excerpt, the phrase is translated as "Abu Sow turned to Mbiita Saar in admiration and asked: Are you an ordinary mortal like the rest of us, Miita Saar?" (B. B. Diop 2016, p. 214). The phrase 'in admiration' is not in the Wolof text, thus it is likely that this is how the translator wanted to capture the contribution of kat.

The example in (3) is with de. In (3) Lie has asked Truth a question after which Truth becomes on her guard and says:
(3) Saa waay, yaa-ngi ma-y tooñ de...
friend 2SG-Prog isg.s-IPFV joke DE 'Friend, you are joking with me...'
(B. B. Diop 2003, p. 61)

In (3) the speaker, Truth, did not expect to be messed around with.
The example in (4) shows that de can target not only the speaker's own expectations, but also the addressee's expectations. In (4), Yaasin Njaay calls Nguirane Faye on the phone, even though they have never met before. When he asks who it is, Yaasin introduces herself, but also adds that her name will not help him place her. Thus, she is targeting the addressee's belief that knowing her name will tell him who she is.
(4) A: (on the phone) 'Who is this?'

B: Yaasin Njaay laa tudd, waaye yaakaar naa ne
Y. N. CFOc.1sg be.called but think 1SG.clfoc COMP
xam-oo ma de, góor g-i.
know-Neg.2sG 1sG.o de man nc.sG-def-prox
'My name is Yaasin Njaay, but I think you don't know me, sir.'
(B. B. Diop 2003, p. 78)

Furthermore, there are also kat and de-utterances which indicate that the speaker is excited. I also consider these a type of surprise utterances, as in both cases the
proposition expressed in unexpected. While surprise can also be negative, excitement is positive unexpectedness. First, consider (5).
(5) Context: After the marabout has described what he sees in an ambiguous picture, his interlocutor says:
A: Loolu de moom, yiii, yaw kat, sëriñ b-i, yaw that DE MOOM INTRJ 2SG.EMPH KAT marabout NC.SG-DEF.PROX 2SG.EMPH moom, sa xam-xam dafa réy kat! моом 2SG.poss know~NMLZ VFOc.3sG be.big KAT 'That, whoa! Wow, you, marabout, you, your knowledge is vast!' Dakar

In (5) the speaker continues by saying that he was not able to see all the things the marabout saw. Thus, he is amazed at how knowledgeable the marabout is for being able to see that. It's not that the speaker didn't expect the marabout to be knowledgeable, but is surprised about how knowledgeable the exactly is. The speaker in (5) uses kat twice in the same utterance: once following the topic yaw 'you' and once at the end of the utterance 'your knowledge is vast'. Additional examples of kat in the second position expressing surprise can be found in Chapter 10.

In (6) the speaker is excited about the fact that we are seeing the rabbits. He already knows the answer to the question and answers it himself, using $d e$ in his answer.
(6) Loo yor n-ii? A-y njombor la-ñ de! what.2SG carry like.this-PROX INDF-NC.PL rabbit CFOC-3PL DE 'What are you carrying? It's rabbits!'

In (7) B has told A that his wife has given birth. When A asks whether it is a boy or a girl, B , being excited about the fact that it is a boy, uses $d e$ in his answer.
(7) $\mathrm{A}: \mathrm{Lu} \mathrm{mu}$ am nag?
what 3sG.s have NAK
'And what did she have?'
B: Góór la am de! man cFoc. 3 SG have DE 'She had a boy!'
(Faye 2012, p. 125)
The examples shown so far illustrated that both disagreement particles, de and kat, are possible in a surprise context. Now, I turn to elicited examples to show that the agreement particles are infelicitous in such contexts. First, consider (8).
(8) Elicitation context: You have a friend who told you she doesn't eat meat. Now, walking down the street, you see her eating meat. You say:
A: A, y-àngi-y lekk yàpp kat/ de/ \#kay/ \#moos/ \#gaa! INTRJ 2SG-PROG-IPFV eat meat KAT DE KAY mOOS GAA 'Hey, you are eating meat!'
elicited
In (8) the speaker thought that their friend did not eat meat, but now sees them doing exactly that. In that case the speaker can say (8) with either the particle de or kat. Some speakers who use kat, as not all do, have expressed to find kat slightly better than de in a surprise context. This could be because kat is more specific than $d e$, i.e., $d e$ also has other functions that kat does not have, see Chapter 7 .

Let us now try to derive the contrast between the felicity of the agreement and the disagreement particles in (8). For A's utterance to work out of the blue, A needs to have expectations or beliefs about their friend's meat eating habits. These expectations or beliefs construe the speakers efistemic bias (e.g., Sudo 2013), a definition from Goodhue (2018) is given in (9).
(9) The speaker is epistemically biased for $p$ iff they believe $p$. (e.g., Goodhue 2018, p. 136)

For (8) the epistemic bias of the speaker are as in (10).
(10) epistemic bias for $\neg p^{\prime}$ addressee does not eat meat'

Furthermore, these expectations need to clash with the proposition that is uttered, which in (8) is 'addressee eats meat'. Another example is given in (11).
(11) A: 'Did your guest eat well?'

B: Bëgg-ul ceeb kat!
want-NEG.3SG rice KAT ‘He doesn't like rice!'
(M. Seck p.c.)

The context in (11) is such that speaker is recounting what happened before. Thus, they are not reacting directly to what causes the surprise, as in (8). The particle kat is nonetheless licensed, even though the surprising event happened in the past. For (10) epistemic bias of the speaker are as in (12).
(12) epistemic bias for $p$ 'people like rice'

Furthermore, consider example (13), based on (4) from Chapter 3, which was originally uttered with daal.
(13) Picc b-u ndaw la de/ \#kay.
bird nc.sG-rel be.small 3SG.CFOC DE KAY
'It is a little bird.'
elicited
I asked the speaker who produced it whether you could also use de and kay respectively instead of daal. She commented: 'You can use de when you begin a conversation, but not kay, kay you use when you agree.' In the next section I show that the reason for this distribution is that de (and kat) signal disagreement -in the sense defined in chapter 4 - between the propositional content of the sentence they occur in and the previous expectation/belief.

Two final elicited examples that illustrate the use of de and kat in surprise contexts are shown in (14) and (15).
(14) Elicitation context: Moussa thinks that Spain is the country shaped like a boat. Now he sees on a map that Italy is shaped like a boat. He says:
M: (Ndeketekat,) Italie moo-y dëkk b-i am
PRT Italy sFOC.3SG-IPFV country NC.SG-REL.PRox have bind-u gaal kat/ de! shape-Gen boat Kat de '(Wow,) ITALY is the country shaped like a boat!' ${ }^{1}$ elicited

In (15) Awa is surprised that Amadou brought her the wrong drink.
(15) Elicitation context: Awa asked Amadou to give her a cup of tea. When he comes back, he's carrying water. Awa says:
A: Wax naa la jox ma àttaaya kat/ de! say clfoc.1sG 2 SG.o give.imp 1 SG.o tea KAt De 'I told you to give me tea!'
elicited

More examples can be found in Chapter 10, which show that kat in second position can also be used in disagreement verum and surprise contexts.

[^17]
### 6.3 Theoretical implications for surprise and disagreement

First, I first compare de and kat to mirative particles. In studies of languages which have morphological marking for evidentiality, the term 'mirativity' is generally used to describe the marking of unexpected information, surprise, sudden realizations, counterexpectations and/or new information (Aikhenvald 2012; DeLancey 1997). Whereas some languages, such as Hare (Athabaskan, Na-Dené), have designated mirative particles, in Wolof mirativity can be marked with the 'multipurpose' particles de and kat. The mirative reading of de and kat, however, is the same as what we find in languages with mirative particles. Designated mirative particles, such as the SFP lõ in Hare, do not need a linguistic antecedent and are thus felicitous discourse-initially (DeLancey 1990, 1997). The Hare example in (16), which according to DeLancey (1997) can be used in a context where the speaker sees a supposed teetotaler drinking alcohol, is reminiscent of the Wolof example in (8):
(16) ĩdõ lõ!
drink.2SG:SU:IMPERF MIR
'You're drinking!' Hare, (DeLancey 1990, p. 157)
In (16) the speaker is episetemically biased ofr $\neg p$ 'the addressee does not drink', which clashes with the expressed proposition $p$ 'the addressee is drinking'. Thus, way the particles kat and de are used in Wolof is similar to the way mirative particles are used in languages with evidentiality. However, unlike bona fide mirative particles, de and kat have the additional function of expressing verum, as was shown in Chapter 4.

Considering I analyzed kat in Chapter 4 as a verum-response particle, I now explore explanations for its usage in surprise contexts both from the verum and from the response particle literature, and show that ultimately both possible accounts do not completely match with the Wolof facts, as they both rely on the need for a linguistic antecedent. Thus, I propose to refine Krifka (2013) such that the disagreement particles should be able to target implicit propositions. This seems to be on the right track even for the behavior of response particles in English, as a similar suggestion has been made by Goodhue (2018). As for $d e$, since I do not consider it to be a response-like particle, I leave it out of the analysis for now and revisit its surprise function in Chapter 7.

Now, let's look at verum and surprise. As Gutzmann, Hartmann, and Matthewson (2017) have observed, and as I showed some examples of in Section 5.3 of Chapter 5, there is micro-variation in the contexts that license verum cross-linguistically. Thus, it could be possible that in Wolof this micro-variation encompasses surprise. Furthermore,
an example of verum marking in what seems to be a surprise context in English can be found in Wilder (2013, p. 153). However, I will show that the felicity of kat in surprise contexts is not due to its verum properties, but due to its response particle properties. Two crucial arguments for this position are that i) cross-linguistically, verum in a surprise context still needs a linguistic antecedent, whereas kat does not and ii) not all the verum-response particles are felicitous in a discourse-initial surprise context. Thus, the occurrence of verum particles in a discourse-initial surprise context should not be analyzed as a property of verum.

First, let's look at the English example from Wilder (2013). With (17) he shows that verum marking can be used in a broader array of contexts than just contexts in which the truth of $p$ is at issue, per the original definition of Höhle (1992). In (17) the proposition $p$, 'Sue left her husband', is in fact shared by both speakers.
(17) A: If only Sue hadn't left her husband.

B: I was surprised that she DID leave her husband.
English
(Wilder 2013, p. 153)
Rather than emphasizing the truth, what the verum marked clause in (17) conveys is "a clash of the observed facts with a previous expectation held by the speaker" (Wilder 2013, p. 153). In other words, verum can target a proposition in the speaker's own expectations, rather than a proposition in the discourse, and this leads to a surprise effect. This clash of an observed fact with a previous expectations is exactly what we have also seen in Wolof in (8). Thus, as Wilder (2013) observes, both verum and surprise have a disagreement component to them.

I argue that the surprise shown in this chapter should be seen as cases of disagreement without a verum operator and reject the alternative possible analysis that surprise contexts are a subset of verum contexts.

First of all, as also stated by Wilder (2013), verum needs a linguistic antecedent. In other words, the linguistic antecedent provided by A's utterance in (17) is crucial for the licensing of the verum/polarity focus marking in B's utterance. If the target of B's utterance were B's expectation, we would expect it to be able to be made salient by a non-linguistic antecedent. Thus, verum in English, just like kat in (8) should be felicitous out of the blue.

In fact, however, verum is impossible in out of the blue contexts, as e.g. Gutzmann and Castroviejo Miró (2011) specifically point out, even when there is surprise, as in (18). According to Matthewson (2017), the fact that verum is infelicitous discourse initially is
a 'core solid fact' of verum that holds cross-linguistically, despite other cross-linguistic variation in the discourse conditions of verum.
(18) Context: A goat walks in. A sees the goat and is pretty sure that it is a goat. B hasn't seen the goat, yet.
A: \#Da IST ein-e Ziege.
there be.3SG.PRS INDF-F goat
Intended: ‘There IS a goat!' (Gutzmann and Castroviejo Miró 2011, p. 16o)

In fact the same argument - that verum needs a linguistic antecedent and that therefore other elements that may express similar meanings, but do not require a linguistic antecedent, are not verum markers - has been made for the Correction Contour in English by Goodhue and Wagner (2018) and for totally in English by Beltrama (2018). Thus, the occurrence of verum in Wilder's example, (17), cannot be generalized for verum marking in surprise contexts across the board: verum requires a linguistic antecedent, even in surprise contexts. In (17) the implicit proposition is crucially made salient by linguistic means. In sharp contrast to (18), no antecedent is required for the surprise use of kat and de in the Wolof equivalent of A's utterance in (18), (19).
(19) Context: A goat walks in. A sees the goat and is pretty sure that it is a goat. $B$ hasn't seen the goat, yet.
A: B-enn bëy m-ungi n-ii de/ kat! NC.SG-some goat 3SG-PROG like.this-PROX DE KAT
'There is a goat!'
elicited

Secondly, it is not the case that the verum marking in (17) alone expresses the clash of expected and observed facts in (17). The matrix clause 'I was surprised that' crucially contributes to the surprise effect. It can even be modified not to express surprise and the verum marking on the auxiliary is still licensed. Consider (20), which I constructed and which was judged felicitous by two native English speakers.
(20) A: If only Sue hadn't left her husband.

B: I was not surprised that she DID leave her husband though.

Thus, verum alone does not have a surprise or 'clash with expectations' meaning. Yet in the Wolof examples discussed in Section 6.2, no additional morphological indicator of surprise needs to be present. In English only a subset of surprise contexts are also felicitous verum contexts.

Thirdly, in Wolof it is not just any type of verum marking which is felicitous in a
surprise context, it is specifically the disagreement verum particles de and kat. The agreement particles kay and gaa are never felicitous discourse-initially. This is shown in (21).
(21) Context: A goat walks in. A sees the goat and is pretty sure that it is a goat. B hasn't seen the goat, yet.
A: \#Benn bëy m-ungi n-ii kay/ gaa!
NC.sG-some goat 3SG-Prog like.this-Prox Kay GAA
'There is a goat!'
elicited
The fact that the agreement verum particles are infelicitous in (21) is crucial, as it shows that in Wolof the surprise effect is not a side effect of verum marking in general, but comes from the particular meaning of the disagreement particles. As agreement and disagreement verum are marked in the same way in English, this difference gets conflated. Therefore, I will not attempt to extend the definition of verum to incorporate discourse-initial surprise contexts, bur rather search for a link between surprise and response particles. This is more promising, as it has been suggested that i) disagreement response particles are felicitous in a surprise context (Krifka 2013) and ii) that response particles do not need a linguistic antecedent (Goodhue 2018; Hankamer 1978), as we will see now.

Krifka (2013), in the same paper which presents the anaphor theory of response particles, notes that English no! can be used to express surprise, as in (22).
(22) A: Ede stole the cookie!

B: No!
English, (Krifka 2013, p. 11)
No! in English expresses the "unwillingness to accept the proposition into the common ground without further elaboration" (Krifka 2013, p. 11), regardless of whether the interlocutor thinks $p$ itself should be asserted or not. In such cases, Krifka (2013) assumes that there is another discourse referent at the assertion level that is introduced by the move of the speaker to make $p$ part of the common ground. The negative response particle uttered by their interlocutor targets this discourse referent, rather than the one anchored to the proposition 'Ede stole the cookie'. Thus, the response particle does not target the discourse referent introduced by $p$ itself and asserts its negation. It targets the DR introduced at the assertion level and asserts the negation of ' $p$ should be added to the common ground'. This is illustrated in (23).
(23) a. [AssertP CG [TP Ede stole the cookie]]
$\hookrightarrow \mathrm{d} \quad \hookrightarrow \mathrm{d}^{\prime}$
b. No!
$\uparrow d$
(Krifka 2013, p. 11)
In this way Krifka's theory captures the use of negative response particles in a surprise context. However, as in the verum-surprise connection, this theory assumes the $d$ has to be uttered, hence discourse referent, before it can be targeted. However, it has been shown by Goodhue (2018) that response particles do not always need a linguistic antecedent.

First, Hankamer (1978) has shown that VP ellipsis can have an antecedent in the discourse, rather than a linguistic antecedent, as in (24).
(24) (Hero, John Wayne or somebody, clamping grip on bad guy just about to commit some misdeed:)
A: Oh no you don't, fella. English, (Hankamer 1978, p. 69)
The example in (24) also contains the response particle no. Goodhue (2018) gives the examples (25), in which the response particles yes and no can pick up a propositional antecedent from non-linguistic context.
(25) A is offering bottles of water to people by holding it out to them. A offers one to B :
B: Yes, thank you.
B': No, thank you.
English, (Goodhue 2018, p. 50)
Examples such as (25) and (24) show propositional antecedents may be made available by non-linguistic context, however they are not used in surprise contexts. To put the surprise use of no, as shown by Krifka (2013) with (22), together with the observation that no can have a non-linguistic antecedent, consider (26).
(26) A walks into a döner shop and sees Beyoncé buying a döner.

A: Noooo...! (It can't be!) English, (J. Gray \& K. Fraser, p.c.)
In (26) the speaker did not expect to see a celebrity in a döner shop and is surprised when they see Beyoncé. In this context, they can utter no, with a lengthened vowel and a specific intonation.

Thus, I propose to merge Krifka's anaphor theory of response particle with Goodhue's
observation that propositional antecedents can be made available non-linguistically. I will not analyze kat in surprise contexts on par with Krifka's analysis for no in (23-b), namely as targeting the proposition that $p$ should be added to the CG, rather I propose that the response particle directly targets the proposition $p$ itself, but that this proposition is implicit.

The disagreement in situations like (8) is between the speaker's previous expectations and the asserted proposition. This means that the disagreement particle kat can directly target an implicit proposition, i.e., a proposition that has not been made explicit in the discourse. This is a refinement of Krifka's (2013) original proposal that response particles can only target propositions in the discourse. However, if kat does not need a linguistic antecedent, this raises the question why they are then not simply licensed in (58) from Chapter 4, repeated here as (27).
(27) A: 'What happened?'

B: Fatou bind na téere \#de/ \#kat/ \#kay / \#gaa.
F. write 3sG.clfoc book de KAT KAY GAA
'Fatou wrote a book.'

The answer is that in (27) the context is controlled for in such a way that the speaker has no previous beliefs about whether Fatou will write a book or not. The context in (27) does not make any proposition residing in the speaker's beliefs salient; the speaker just answers to a neutral 'What happened'-question. When a speaker has no previous beliefs about a certain topic, there is no possible proposition, neither implicit nor explicit, that kat could pick up. Thus, kat will not be licensed in those situations. Even when the speaker reacts to a previous belief or expectation, there needs to be something that makes the proposition salient.

This is another reason that in Chapter 4 I proposed that the verum aspect of the particles should not be considered part of their lexical meaning: verum does not get realized in surprise contexts, nonetheless kat is felicitous. Thus, the particles do not contribute the verum meaning themselves and kat's felicity in surprise contexts is due to its disagreement meaning. The response particle properties of kat allow for its use in contexts where there is no linguistic antecedent. When the context does not license the verum operator in an utterance, the surprise reading emerges.

Furthermore, the difference between implicit and explicit propositions also accounts for the difference in behavior between kat and de, on the one hand, and kay, on the other. While gaa, being an agreement particle, is easily ruled out by analyzing the surprise contexts as instances of disagreement, we have seen in Chapter 4 that kay, kat and de
are all felicitous in the context labeled as positive+disagreement. Nonetheless, kay is infelicitous in the surprise contexts. Consider again (8), repeated here as (28).
(28) Elicitation context: You have a friend who told you she doesn't eat meat. Now, walking down the street, you see her eating meat. You say:

```
A: A, y-àngi-y lekk yàpp kat/ de/ #kay!
INTRJ 2SG-PROG-IPFV eat meat KAT DE KAY 'Hey, you are eating meat!'
```

Descriptively, the context in (28) checks the right boxes for kay: i) there is disagreement and ii) A's utterance is positive. Nonetheless, there is no suitable target proposition for kay in (28). 'Addressee does not eat meat' is a belief of the speaker and not uttered in the discourse. Since there is no linguistic antecedent, the targeted proposition has no linguistic structure. Thus, there is no embedded proposition 'addressee eats meat' in (28) that kay could possibly pick up and agree with. This explains why kay is not felicitous in (8).

The infelicity of kay in a positive+disagreement context without a linguistic antecedent further corroborates my analysis of kay in Chapter 4 as an agreement particle, whose felicity in positive+disagreement contexts stems from its ability to target embedded propositions. If kay were a disagreement particle, we would expect it to be possible in (28), on par with kat.

### 6.4 Open issue: kat with other surprise particles and interjections

In this section I show other ways in which surprise can be marked in Wolof, and how the particle kat interacts with these. Recall example (14), repeated here as (29). This example also illustrates the use of the particle (or interjection?) ndeketekat.
(29) Elicitation context: Moussa thinks that Spain is the country shaped like a boat. Now he sees on a map that Italy is shaped like a boat. He says:
M: (Ndeketekat) Italie moo-y dëkk b-i am bind-u PRT Italy SFOC.3SG country NC.SG-REL.PROX have shape-GEN gaal kat/ de! boat KAT DE '(Wow,) ITALY is the country shaped like a boat!'

Other variants of this particle are ndeke or ndekete. ${ }^{2}$ Thus, two particles that express surprise, ndekete and kat can be combined to form ndeketekat. Another particle that expresses surprise is ndaxam. $3^{3}$ The use of ndeke(te) and ndaxam is illustrated in (30) from Torrence (2013a).
(30) a. Ndekete (yóó) sàcc na téeré b-i!
prt yoo steal clfoc.3sg book nc-SG-Dem.prox
'(I didn't know that) he stole the book!'
b. Ndaxam (yóó) sàcc na tééré b-i!

PRT YOO steal CLFOC.3SG book NC-SG-DEM.PROX
'(Wow!) He stole the book!'
(Torrence 2013a, p. 77)
Another example is given in (31), which shows that ndekete does not have to be sentenceinitial, as in (31) it comes after the subject. The example comes from the story Jëkkër ju amul ub léget 'A husband without a scar'; Coumba finds out that her husband is a djinn and not a man, and says (31).
(31) Sama jëkkër j-i ndekete du nit.

1SG.poss husband nc.sG-def.prox prt 3SG.neg person 'My husband is not a human being!'

Both particles also function as adversative conjunctions, as illustrated in (32).
(32) a. Maa-ngi d-oon xaar rekk, ndekete kaar b-i dem 1SG-PROG IPFV-PST wait only however bus nc.sG-def.prox go na. CLFOC.3SG
'J'attendais, cependant le car était parti.'
'I was waiting, however the bus had already left.'
b. Ndaxam waxtu w-i jot-ag-ul however hour nc.SG-DEF.Prox arrive-Yet-NEG.3SG 'Pourtant ce n'est pas encore l'heure.' 'However, the time hasn't come yet.'
(J. L. Diouf 2003, p. 171)

Other particles and interjections occurring in a surprise context that need to be systematically investigated are waay, moo, móyyéén, moo waay, ya, waa, waayo, yiii, nii and yóó (Faye 2012; Torrence 2013a). Prosody also plays a role. Rialland and Robert (2001)
$2 T e$ is the sentential conjunction in Wolof, though it is not clear what it's meaning contribution to ndeke is.
3 As Torrence (2013a) observes, this particle consists of ndax 'whether', 'because' and am 'or', 'have'. Although again it is not clear how this works compositionally.
describe the intonation of a surprise utterance as enfing in a super-high $\mathrm{H}+$ tone in falsetto, shown for one intonation group in (33).
(33) surprise in a statement

$$
[\sigma \sigma \ldots \sigma \sigma]
$$

L LH H+ (falsetto) $\%$
(Rialland and Robert 2001, p. 932)
Finally, focus marking could also play a role in the marking of surprise. It has been independently established for multiple languages that focus fronting in questions can have a surprise effect, see Bianchi, Bocci, and Cruschina (2016) for Sicilian and Jordanoska and Meertens (2020) for Macedonian. Furthermore, Hartmann and Zimmermann (2007) have found that in Hausa objects can be focus fronted in an all-new focus declarative, provided that the object is unexpected or surprising in relation to the rest of the sentence. This is shown in (34).
(34) A: 'What happened?'

B: Dabboobi-n jeejiii nee mutàanee su-kà kaamàa. animals-LINK bush foc men 3PL-Rel.PFV catch
'(The) men caught WILD ANIMALS.'
Hausa (Hartmann and Zimmermann 2007, p. 18)

In (34) the object dabboobin jeejì 'wild animals' is fronted and marked with the particle nee and the morpheme -kà, which is the relative form of the Person-Aspect Complex and is used to mark ex-situ focus (Newman 2000). Normally, fronting the object can only express narrow object focus in Hausa.

For Wolof, Robert (1989) and Fiedler (2013) have found that thetics can be realized with narrow subject focus, as in (35).
(35) A: 'What happened?'

B: Musaa, moo dóór Ndey!
M. sfoc.3sG hit Nd.
'Moussa hit Ndey!'
(Robert 1989, p. 10)
It has not been systematically investigated thus far under which specific circumstances all-new focus is not realized with a sentence focus conjugation, but with a subject focus conjugation instead. It seems to be related to unexpectedness, such as in the Hausa example in (34), or what Allerton and Cruttenden (1979) called 'misfortune and (dis)appearance'. Upon a preliminary investigation, it seems that narrow object focus,
parallel to the Hausa example in (34) is possible in Wolof in a thetic, next to subject focus and all-new focus. All responses were judged as felicitous in the context of (36).
(36) Elicitation context: Moussa is trying to play the sabar inside the house, while Bintou is listening. Moussa is not very good at it, it sounds like someone is beating a wall. Hamine walks by the house and hears the noise, but because Moussa plays so badly, he doesn't recognize that it is the sabar. He walks in the house and asks: 'What's happening?'4
B: Sabar la Moussa di tëgg! sabar cFoc.3sG M. IPFv play
$B^{\prime}$ : Moussa moo-y tëgg sabar! M. 3SG.SFOC-IPFV play sabar

B": Moussa mu-ngi-y tëgg sabar!
object focus marking
subject focus marking
sentence focus marking M. 3SG-Prog-IPFv play sabar 'Moussa is playing the sabar!'

In (36) the fact that Moussa plays the sabar is not unexpected for the speaker, as she knows the answer. However, she might think it is unexpected for the listener. Thus, outstanding questions are what the differences are between fronting the object and fronting the subject in an all-new thetic sentence. It remains to be seen how different and independent devices to mark mirativity, such as particles, intonation and focus marking, could interact with each other.

In the next chapter I continue with the particle de and show even more contexts it can appear in: subjective assertions, intensives and imperatives.

[^18]
## 7 More of $d e$ : Intensification

Thus far we have seen in Chapter 4 that the particle de occurs in verum contexts, together with gaa, moos, kat and kay. As a final illustration of the difference between de and kay, consider the scenario in (1) that was volunteered by a consultant.
(1) Context: B is about to eat some soup. A knows that the soup is very hot, and tries to warn $B$ that she shouldn't eat too fast.

A: Tàng na de/ \#kay/ \#kat /\#gaa!
be.warm clfoc. 3 SG de KAy KAt gas
'It is very hot!'
After trying the soup, B says:
B: Tàng na kay!
be.warm clfoc. 3 S Kay
'It is hot indeed!' volunteered
In Chapter 6 it was shown that de can be used discourse-initially in a surprise context. (1), de shows a different use of de discourse-initially, namely as an intensifier: tàng na is translated as 'very hot' by the consultant. In this section I will show that, unlike any of the other verum particles, $d e$ also functions as an intensifier, both lexical, i.e., on a truth-conditional level, and pragmatic, i.e., a use-conditional level. Of all the particles discussed in this thesis, de occurs in the widest array of contexts. This chapter constitutes the final part of the exposition of sentence-final de.

The data on $d e$ is spread across Sections 7.1 and $7.4-7.6$. While these sections are primarily descriptive, the relevant examples will be repeated in Section 7.8, where the analysis will be presented. In a nutshell, I propose that $d e$ is an intensifier that can operate in a parallel way on either a lexical or a pragmatic scale, but not on both simultaneously. The difference between these two uses of $d e$ is that in the cases of lexical intensification de modifies the degree to which a gradable predicate holds of an entity. In the cases of pragmatic intensification, on the other hand, $d e$ modifies the degree to which the speaker holds an attitude that a proposition $p$ should be added to the Common Ground. Since $d e$ is an intensifier, in both the lexical and the pragmatic
cases this degree exceeds the standard degree. This analysis builds off Giannakidou and Stavrou (2009) and Giannakidou and Yoon (2011), who have proposed that the metalinguistic use of the comparative more can be captured as modification of the degree to which a speaker holds a certain attitude to certain propositions.

I start by showing the cases in which de functions as a lexical intensifier in the next section. In Section 7.2 I compare $d e$ to the particle $b a$, which only shares the lexical intensification meaning with $d e$. In Section 7.3 I give an analysis for $b a$. In Sections 7.4-7.6 I show the use of $d e$ in subjective assertions and imperatives with a warning flavor. In Sections 7.7 and 7.8 I discuss what has been said about the relation between intensification and verum in other languages. Specifically, in 7.7 I compare Wolof de to a similar particle in Bambara, $d \dot{\varepsilon}$, and discuss the possible origin of these particle. In 7.8 I compare de to pragmatic intensifiers which have been given non-degree modification accounts, such as Italian -issimo, Washo šému (Beltrama and Bochnak 2015), Hebrew mamaš and English really (McNabb 2012a). I show that de does not occur in the same contexts as those intensifiers and argue that the analysis of de should be degree-based. I then show how the parallelism between the lexical and pragmatic uses can be captured and how the proposal that de modifies the degree to which the speaker holds an attitude that a proposition $p$ should be added to the Common Ground can account for the pragmatic intensification data shown in Sections 7.4-7.6. Section 7.9 summarizes. In the appendix in Section 7.10 I compare the contexts in which de and kat occur to the contexts in which English totally occurs as a first step for potential future research.

### 7.1 Lexical intensification

In this section I show examples of de being used as a lexical intensifier. Lexical intensification, so called by Beltrama (2016, p. 5) to contrast with non-lexical or pragmatic intensification, is intensification on a scale provided by a gradable predicate. This means that de can have truth-conditional meaning, rather than use-conditional only. I henceforth only use the terms 'lexical' and 'pragmatic intensification' rather than 'truth-' and 'use-conditional'. As a first example, consider (2), taken from a conversation between a woman and a child.
(2) Dàll y-i diis nan de!
shoe nc.pl-def be.heavy clfoc.3Pl de
'The shoes are very heavy!'
Sanar
The utterance in (2), with de modifying the verb diis 'be heavy', expresses that the
shoes are heavy to a high degree. The fact that $d e$ is truth conditional is shown in the asymmetric entailment relation that holds between (2) and the unmodified form dàll yi diis nan 'the shoes are heavy'. While (2) entails the unmodified form, vice versa, dàll yi diis nan 'the shoes are heavy' does not entail dall yi diis nan de 'the shoes are very heavy'. In order to get this intensifying reading, de needs to co-occur with gradable predicates, such as diis 'be heavy' in (2). The elicited example in (3) presents further evidence that $d e$ can be truth-conditional. Crucially, while use-conditional items can not be targeted by negation, lexical intensification can. (3), with no further context, can have two possible meanings, as shown in the translations.
(3) Taw-ul de!
rain-NEG.3SG DE
'It is not raining a lot (...it is raining a little bit!)'
'It is not raining at all (...the sun is shining!)' elicited

The two readings of (3) were gathered through felicity judgments; speakers were asked whether (3) can refer to a picture in which i) there is no rain, only sunshine, ii) only a couple drops of rain and iii) a lot of rain. The first two options were judged as felicitous, whereas the latter was not. ${ }^{1}$

Another, non-elicited, example of the use of $d e$ as an intensifier is shown in (4) with the verb rafet 'be pretty', or in the context of (4), rather 'be cute'.
(4) Dafa rafet de!
vFoc.3SG be.pretty DE
'It is so cute!'
Dakar
The sentence in (4) is uttered when talking about someone's pet rabbit. Another natural example, with the verb gudd, is shown in (5), where the speaker reacts to a certain path the other speaker has proposed to take.
(5) Yaw, li nga wax gudd na de!

2SG.EMPH NC.SG-REL 2SG.S say be.long CLFOC.3SG DE

[^19]'The road you propose is very long!' (lit: 'You! What you say is very long!') Dakar

In principle a sentence such as (5), (4) or (2) with no further context is ambiguous between the intensifying, surprise and verum reading. Both (2) and (4), however, were uttered with no relevant prior discourse. In (2) the speaker was talking to a child about a lizard, before switching to the shoes. In (4) the speaker was talking about how the pictures he took of the rabbit on his phone are not bright enough. ${ }^{2}$ (5) was uttered in reaction to the proposed path. Consider also (6) from the film Atlantique (M. Diop 2019):
(6) Man maa la-y gunge, mais l-enn, bëgg naa nga def 1SG SFOC-1SG 2SG.O-IPFV follow but.FR NC.SG-one want 2SG.ClFOC 2SG do ko sa bopp b-u baax. Gis nga, ci biti neex-ul 3SG.O 2SG.POSs head NC.SG-REL be.good see 2SG.S loc outside be.nice-NEG.3SG de! DE
'I will come with you. But you should understand one thing. You see, outside it is really not nice! (i.e., life on the streets is tough)' Atlantique (M. Diop 2019)

The person the speaker in (6) is talking to hasn't said anything in a while, so in this context ci biti neexul de could either mean 'I am very sure that life on the streets is not nice' or 'life on the streets is very unpleasant'.

The example in (7) shows an elicited minimal pair with a gradable stative verb, saf 'be spicy', in which the de-utterance is the same, but the contexts disambiguates between verum and intensification.

> a. Saf-ul tuuti, dafa saf de! be.spicy-NEG.3SG little vFoc.3SG be.spicy DE 'It isn't a little spicy, it is very spicy!'
b. Waa, gëm-ul-oo ne dafa saf? Dafa saf de! INTERJ believe-NEG-2SG COMP VFOC.3SG be.spicy vFoc.3sG be.spicy de 'What, you don't believe it is spicy? It IS spicy!'

In (7-a) de has a degree modifying meaning, while in ( $7-\mathrm{b}$ ) the speaker just insists that the dish is spicy, $p$, contrary to what the listener has claimed, $\neg p$. In ( 7 -b), speakers have commented that the dish does not necessarily have to be spicy to a high degree

[^20]in order for the utterance to be felicitous. Some more examples with gradable stative verbs are given in (8) and (9). (8) and (9) are from the story Jëkkër ju amul ub légët 'A husband without a scar' (Wàdd 2016). The context in (8) is such that a young woman, Coumba, is married to a man without a scar. She doesn't know that the man is actually a djinn. The djinn turns into a lion and goes hunting. He turns back into a man, comes back with a gazelle and asks Coumba to cook it. Coumba responds with (8):
(8) Nijaay, togg kéwel g-épp ngir nun ñaar rekk dina doy maternal.uncle cook gazelle NC.SG-all for 1SG.EMPH two only FUT.3SG suffice waar de...
be.amazed DE
'Honey, cooking the entire gazelle for just us two will be very weird...' 34
(Wàdd 2016, p. 20)
The verb doy waar 'be weird' in (8) is modified by de. In (9) the djinn, knowing he is about to change into a lion and eat his wife, says to himself:
(9) Sama jabar j-a dina tiit de!

1SG.POss wife NC.sG-DIST fut.3SG be.afraid DE 'My wife will be so afraid!'
(Wàdd 2016, p. 21)
In (9) de modifies the verb tiit 'be afraid'. Stative verbs in Wolof denote concepts expressed with adjectives in English. Thus the examples given so far can be seen as corresponding to gradable adjectives. (10) shows that an active gradable verb like foog 'think' can also be modified by de. ${ }^{5}$
(10) A: Ndax dina wàcc midi?

Q FUT.3SG descend midday.FR
'Will he be back by midday?'
B: Aa! Foog-u-ma ko de.
intrj think-NEG-1SG 3sG.O DE
'Oh! I really don't think so.'
(Faye 2012, p. 126)

[^21](11) is an elicited example showing that de can also occur with an active gradable verb, like naan 'to drink'.
(11) Naan-ul tuuti, dafa naan de!
drink-NEG.3SG little vFOC.3SG drink DE
'He doesn't drink a little bit, he drinks a lot!'

For completeness, it should be noted that de is frequent as an intensifier in fixed expressions used in greeting, such as in (12).
(12) a. Gëj naa la gis de!
be.long.ago CLFOC.1SG 2SG.o see DE
'It's been so long that I've seen you!'
b. Namm naa la de!
miss CLFOC.1SG 2SG.O DE
'I missed you so much!'
In the next section I compare de with other intensifying morphemes in Wolof.

### 7.2 Other intensifiers

### 7.2.1 de v. ba

In its lexical intensifying use, de overlaps in function with another SFP that has not been discussed yet: ba (often pronounced as [bə] and written as be in Robert (1989) and $b \ddot{e}$ (Munro and Gaye 1997, p. 19)). Both $d e$ and $b a$ can be used for expressing lexical intensification, however, ba does not appear in any of the other contexts in which de does. Examples with $b a$ from Robert (1989) and Robert (2010a) are given in (13) and (14).
(13) Bi ñu ko ko may-ee, dafa fecc be! when 2PL.s 3SG.o 3SG.O give-PFV VFOC.3SG dance bA 'Quand on le lui a donné, il a tellement dansé!'
'When we gave it to him, he danced so much!' (Robert 1989, p. 89)
(14) Paaka b-i mu-ngi ñaw be, nga ko-y foy-e!
knife NC.SG-DEF.PROX 3SG-PROG be.sharp BA 2SG.S 3SG.O-IPFV play-APPL
'The knife is so sharp and (yet) you are playing with it!' (Robert 2010a, p. 22)

According to Robert (1989) ba in combination with verb focus gives the meaning 'du coup il a tellement p', 'so, he did p so much'. Robert (1989, p. 89) furthermore mentions


Figure 7.1: Pitch contour bi ñu ko ko joxee, dafa si fecc ba.
that (14) has a 'suspended intonation', i.e., as if the sentence isn't finished. Since this is not illustrated in Robert (1989), I have asked a speaker to pronounce (14) and the pitch contour of his utterance is shown in Figure 7.1. ${ }^{6}$ An utterance with $b a$ is also often accompanied by a hand gesture in which the hand is raised up until approximately the height of the face while the palm is being turned from facing the speaker to facing away from the speaker.

The suspended intonation that Robert (1989) observes can be seen in Figure 7.1 by the fact that the pitch suddenly rises quickly with the particle. Furthermore, Rialland and Robert (2001, p. 929) observe that "vowel lengthening to mark delay, hesitation, or expectation is also attested [...] This occurs particularly: [...] on connecting particles such as the completive $n e$ 'that', ba [bə ...] 'until', or the connective suffix -u."

Elicited minimal pairs with $d e$ and $b a$ are shown in (15).
(15) a. Dafa dee de /*ba
vFoc.3sG be.dead DE bA
'He is really dead!'
b. Dafa saf de /ba.
vFoc.3SG be.spicy de ba
'It is very spicy!'
When de occurs with a non-gradable verb, the sentence automatically gets a pragmatic

[^22]intensification reading, whereas this is option is not available for $b a$. $B a$ is ungrammatical with a non-gradable verb, unless it is coerced into gradability. (15-a), for example, is acceptable for some speakers in the context of a body that has been dead for a long time, and you can see it by the amount of rotting. In this case coercion takes place making the verb dee 'be dead' gradable: 'very dead' becomes synonymous with 'a high amount of rotting'. Furthermore, consider (16), a constructed example based on (4) in Chapter 3, which was originally uttered with daal. When I replaced daal with ba, as in (16), the speaker rejected the sentence.
(16) *Picc b-u ndaw la ba. bird nc.sG-Rel be.small 3sG.CFOC BA Intended: 'It is a little bird.' elicited

Moreover, consider (17), a surprise context, in which $d e$ is grammatical, but $b a$ is not.
(17) Fatou am na fukk-i doom de/ *ba!
F. have clfoc. 3 SG ten-Pl child DE BA
'Fatou has ten children!' elicited
The difference between $d e$ and $b a$ is summarized in Table 7.1.

|  | verum/surprise | intensification |
| :--- | :--- | :--- |
| ba | $*$ | $\checkmark$ |
| de | $\checkmark$ | $\checkmark$ |

Table 7.1: Intensification particles in Wolof.

Another difference between $d e$ and $b a$ is that $b a$ can only come at the end of a clause and not in any other position, whereas de can also appear following topics, as shown in Chapter 9. (18) shows the unavailability of $b a$ in second position.

Thus, the particle $b a$ has a more specific meaning than $d e$. Nonetheless, $b a$ is not the preferred particle for intensification. Expressions such as Seer na de! 'It is very expensive!' and Neex na de! 'It is very nice!' are quite common and more frequently heard with $d e$ than with $b a$. Furthermore, not all speakers accepted $b a$ as an SFP. Some said that the sentence is incomplete if you end it that way. The origin of $b a$ as an SFP
is from the preposition $b a$ 'until' that is used in adverbial constructions such as $b a$ bëgg a dee 'for sure' (lit: 'until wanting to die') or ba soonu 'until being tired'. When the phrase following $b a$ is elided, $b a$ becomes a sentence-final particle. The fact that only some speakers accept this construction suggests that it is still in the process of grammaticalization from a preposition to a sentence-final particle. Moreover, some speakers said that ending a sentence with $b a$ is only acceptable if the specific hand gesture mentioned above accompanies it. The sentences in (19) and (20) show how $b a$ can syntactically be used as a preposition 'until', however, pragmatically, convey an intensifying meaning.
(19) Tey dafa sedd ba k-enn mën-ul génn ci biti. today 3 SG.vfoc be.cold until nc.sG-some can-3sG.neg leave loc outside 'Today it is so cold that nobody can go outside.' (lit: 'Today it is cold until nobody can go outside.')
(Robert 2010a, p. 88)
(20) Kumba tiit ba dar gémmiñ ga.
K. be.afraid until cover mouth nc.sG-DIST
'Coumba was so afraid, she put her hand over her mouth.' (lit: 'Kumba was afraid until covering her mouth.')
(Wàdd 2016, p. 23)
In both (19) and (20), $b a$ is used in the construction 'until X'. In (19) it ba kenn mënul génn ci biti can be paraphrased as 'to the point that nobody can go outside' and in (20) ba dar gémmiñ ga can be paraphrased as 'to the point that she covered her mouth'. Thus, this leads to an intensifying effect.

### 7.2.2 Other degree modifiers

It should be noted that Wolof has other degree modifiers, which are more frequent than $d e$ or $b a$. Recall from (i) that the stative verb bari means 'be many' or 'be a lot'. This verb is often used in existential constructions, i.e., 'There is a lot of $X^{\prime}$, ' $X$ is many'. A relative clause construction of that verb, lu bari 'a lot', as in (21-a), is used with gradable active verbs. Adverbial constructions include lool 'very', often used with stative verbs, (21-b) and torop 'very', 'a lot', 'too (much)', (21-c) and (21-d).
(21) a. Su naan-ee l-u bari, dem lóóju.
if.3SG drink-PFV NC.SG-ReL be.many go stick.finger.in.throat 'Quand il a beaucoup bu, il va se chatouiller la luette pour vomir.'
'When he's drunk a lot, he goes to stick his finger in his throat to vomit.' (J. L. Diouf 2003, p. 142)
b. Dafa diis lool!
vFOc be.heavy very
'It is very heavy!'
(J. L. Diouf 2003, p. 142)
c. Dafa man a wax torop!
vFOC.3SG can vL talk very
'Il est trop bavard.'
'He is too chatty.' (lit: 'he can talk a lot/ too much') (J. L. Diouf 2003, p. 264)
d. Rafet na torop!
be.pretty CLFOC.3sG torop
'She is very pretty!'
(Munro and Gaye 1997, p. 192)

Finally, Wolof has a wide array of ideophones, which when used in a construction that modifies the verb, are referred to as coverbs (Childs 2003). Many coverb constructions have idiomatic intensifying meanings, as shown in (22).
(22) a. Dafa diis gann.
vFOC.3SG be.heavy IDEO
'It is very heavy.' (cf. 'heavy as lead')
(Tamba, Torrence, and Zimmermann 2012, p. 30)
b. Fees na dell.
be.full cLFOC.3SG IDEO
'It is completely full' (cf. 'chock full')
(J. L. Diouf 2003, p. 51)

### 7.3 A degree analysis for intensification

Gradable predicates denote a relation between individuals and degrees, and intensifiers modify degrees. There are different ways to analyse lexical intensifiers, I use the definitions given in Morzycki (2016), based on Kennedy and McNally (2005). An example with the predicate heavy is given in (23).
(23) $\llbracket$ heavy $\rrbracket=\lambda d \lambda x \cdot \operatorname{heavy}(d)(x) \quad$ based on Morzycki $(2016$, p. 112)

The denotation of the predicate heavy in (23) is a relation between an entity $x$ and a degree $d$. Additionally, the context provides a standard; for the predicate heavy, this standard constitutes the cut off point between 'heavy' and 'not heavy'. The standard for the predicate heavy in context $c$ is written as as: standard ${ }_{c}$ (heavy).

When the predicate is unmodified by a linguistic degree modifier a covert morpheme
saturates the degree argument. This morpheme is called the positive form, written as pos. The positive form introduces a contextual standard, as in (24).
(24) $\llbracket \mathrm{POS} \rrbracket^{\mathrm{c}}=\lambda \mathrm{G}_{\langle\mathrm{d}, \mathrm{et}\rangle} \lambda x . \exists \mathrm{d}\left[\mathrm{d}>\operatorname{standard}_{\mathrm{c}}(\mathrm{G}) \wedge \mathrm{G}(\mathrm{d})(\mathrm{x})\right]$ (Morzycki 2016, p. 115)

To see how this applies to the examples shown in Section $7 \cdot 1$, consider (2), repeated here as (25):
(25) Dàll y-i diis nan de! shoe NC.PL-DEF be.heavy CLFOC.3PL DE 'The shoes are very heavy!'

For the unmodified form of the sentence in (25), i.e., Dàll yi diis nan "The shoes are heavy', we get the denotation in (26).
(26) $\quad \llbracket$ Dàll yi diis nan Pos $\rrbracket^{c}=\exists \mathrm{d}\left[d>\right.$ standard $_{c}($ heavy $) \wedge$ heavy $(d)$ (The shoes) $]$ (based on Morzycki (2016, p. 114))
(26) says that the shoes have a certain degree of heaviness and that this degree is on the 'heavy' side of the cut off point between 'heavy' and 'not heavy' on the scale. The denotation of a modifier like very, which I base the denotation on lexical intensifiers like de and $b a$ on, is given in (27). English very is an open scale modifier, meaning it modifies predicates which have no upper bound, such as spicy and heavy, which we have also seen with $d e$ and $b a$.
(27) $\quad \llbracket$ very $\rrbracket^{c}=\lambda \mathrm{G}_{\langle\mathrm{d}, \mathrm{et}\rangle} \lambda x \exists \mathrm{~d}\left[\mathrm{G}(\mathrm{d})(\mathrm{x}) \wedge d \gg_{\mathrm{c}} \operatorname{standard}_{\mathrm{c}}(\mathrm{G})\right] \quad$ (Morzycki 2016, p. 119)

The notation $>_{c}$ in (27) indicates that the standard is exceeded by a 'large amount'. Thus, plugging (27) into (26), we get the denotation for dàll yi diis nan de 'the shoes are very heavy', as in (28).
(28) $\quad \llbracket$ dàll yi diis nan de $\rrbracket^{c}=\exists d\left[\right.$ heavy $(\mathrm{d})($ the shoes $) \wedge \mathrm{d} \gg_{c}$ standard $_{c}($ heavy $\left.)\right]$
(28) is almost identical to the denotation in (26). The only difference is that (28) requires exceeding the contextually provided standard by a large amount.
(28) also works for modification with the particle $b a$. Based on the examples in Section 7.2, ba can get a run of the mill degree modifier analysis, parallel to very, such as in (29).
(29) $\quad \llbracket \mathrm{ba} \rrbracket^{\mathrm{c}}=\lambda \mathrm{G}_{\langle\mathrm{d}, \mathrm{et}\rangle} \lambda x \exists \mathrm{~d}\left[\mathrm{G}(\mathrm{d})(\mathrm{x}) \wedge \mathrm{d} \gg_{\mathrm{c}} \boldsymbol{\operatorname { s t a n d a r d }}_{\mathrm{c}}(\mathrm{G})\right]$

We can apply the same analysis for $d e$, as in (30), to account for the lexical intensification use.
(30) $\quad \llbracket \mathrm{de} \rrbracket^{\mathrm{c}}=\lambda \mathrm{G}_{\langle\mathrm{d}, \mathrm{et}\rangle} \lambda x \exists \mathrm{~d}\left[\mathrm{G}(\mathrm{d})(\mathrm{x}) \wedge \mathrm{d} \gg_{\mathrm{c}} \boldsymbol{\operatorname { s t a n d a r d }}_{\mathrm{c}}(\mathrm{G})\right]$

For $d e$, however, we need to say more in order to account for the variety of contexts it appears in. I will show examples of non-lexical intensification in the following sections.

### 7.4 De with expressive meaning

According to Beltrama (2016), intensifiers can target two types of scales: lexical and non-lexical or attitudinal scales. The ordering of attitudinal scales is not based on a gradable property within the propositional content, but the speaker's attitude i.e., how excited, certain, or surprised the speaker is about what they are saying. The latter is what is known as pragmatic intensification.

It has been shown that de can express excitement and surprise in Chapter 6, and it has been shown that $d e$ has truth-conditional meaning in Section 7.1. Cross-linguistically, certain modifiers operate on both of these levels, such as Italian -issimo (Beltrama 2016; Beltrama and Bochnak 2015). Furthermore, exclamatives have also been analyzed to consist of both a degree and a surprise component (Castroviejo Miró 2007; Rett 2011). In this section I compare utterances with de to exclamatives and utterances with the Italian modifier -issimo in order to show that unlike the former two, de can only operate on either a lexical or a pragmatic level and not both simultaneously.

Recall from Chapter 6 that de can be used to express surprise and excitement. An example of an utterance which conveys excitement, (6) from Chapter 6, is repeated here as (31).
(31) Loo yor n-ii? A-y njombor la-ñ de!
what.2SG carry like.this.PROX INDEF-NC.PL CFOC-3PL DE 'What are you carrying? It's rabbits!'

In (31) the speaker is excited about the fact that we are seeing the rabbits. He already knows the answer to the question and answers it himself, using de in his answer. Crucially, there is no gradable predicate in this example.
(32) shows that degree modifying de does not inherently have any other type expressive content, such as excitement.
(32) A: ‘What's your opinion on Wally Seck?'

B: Dafa siiw de, waaye yëngal-u ma. VFOC.3SG be.famous DE but excite-NEG.3SG 1SG.O 'He is very famous, but it doesn't excite me.' elicited

In (32), we see that there is no expressive content in the first clause, as it can be followed up by 'it doesn't excite me'. Compare (32) to the Italian (Romance, Indo-European) example in (33), which contains the modifier -issimo.
(33) La casa è bell-issima, \#ma non sono così eccitato.
def.f house be.3SG.pres beautiful-ISSIMo but neg be.1SG.pres so excite.ptcr The house is beautiful-Issima, but I'm not so excited about it! Italian (Beltrama and Bochnak 2015, p. 872)
-Issimo, like de is an intensifier, thus (33) expresses that the house is beautiful to a high degree (Beltrama 2016). However issimo-utterances also have additional expressive content. This is shown in (33) by the fact that 'the house is beautiful-Issima' cannot be followed by 'I am not excited about it', i.e., the expressive content cannot be canceled.

Exclamatives, such as the English ones in (34), have also been shown to contain both a surprise component and a degree component (Castroviejo Miró 2007; Rett 2008, 2011).
(34) What languages Mimi speaks! English, (Rett 2008, p. 604)
(34) is only felicitous in a context in which the speaker is both surprised, and the amount of languages Mimi speaks exceed a certain standard degree. When only one condition is fulfilled, the exclamative is infelicitous (Rett 2011). It is not the case that both of these conditions need to hold for $d e$-intensification to be felicitous. Recall from the examples presented in the presented in Section 7.1 that the speaker does not have to be surprised in order for the utterance with $d e$ to be felicitous.
(35) Saf-ul tuuti, dafa saf de! be.spicy-neg.3sG little vFOC.3SG be.spicy de 'It isn't a little spicy, it is very spicy!'

The English equivalent with an exclamative in (36) shows that de-utterances are assertions, not exclamatives, as exclamatives are not felicitous in the same context in which $d e$-utterances are.
(36) \#It is not a little spicy, how spicy it is!

English, (J. Gray, p.c.)
Thus, I do not analyze de-utterances as exclamatives for the following reasons: i)
it doesn't pattern like exclamatives syntactically and ii) exclamatives have both the degree boosting property and the expressing surprise property simultaneously, whereas utterances with $d e$ can have either separately from the other. ${ }^{7}$

Thus, lexical intensification with de does not have an additional expressive component, as some other intensifiers cross-linguistically, like Italian -issimo, do. When de does have expressive meaning, it is not with lexical intensification, but pragmatic intensification. The next section shows more examples of what I will analyze as pragmatic intensification with $d e$ in Section 7.8: subjective assertions.

### 7.5 Subjective assertions

In this section I describe another environment in which we find $d e$. This environment is what Beltrama (2016) calls SUbjective assertions, i.e., assertions which convey a speaker's subjective stance on a certain subject. Following Stephenson (2007), Beltrama (2016) considers subjective assertions assertions with modals and predicates of personal taste. Other than factive assertions, subjective assertions give rise to faultless disagreement. An example of a subjective assertion with a modal verb in Wolof is the elicited example (37), which contains the modal verb war 'must'.
(37) War nañu dem de!
must clfoc.1pl go De
'We have to go!' elicited
Speakers have commented that adding $d e$ to last adds a sense of urgency, and can for example be used when the listener does not seem to be making an effort to get ready. While (37) contains a modal and thus falls under the label 'subjective assertion' as used by Beltrama (2016), in this section I also show examples which I consider subjective assertions, but which are not with modals or predicates of personal taste. Rather, they are utterances in which a speaker expresses an opinion, which may not be accepted into the CG without further questioning. I will argue in Section 7.8 that adding de 'objectivizes' these assertions, i.e., signals that the speaker wants them to be treated as

[^23]factive assertions. The sentence in (38) was uttered when the speaker was describing certain people.
(38) Jàmbaar la-ñu de! champion CFOC-3PL DE
'They are champions!'
Dakar
In (38) the speaker gives their opinion, which does not have to be agreed upon by the other discourse participants. Another example in which a speaker gives their opinion is (39). The example in (39), from Faye (2012), shows a subjective assertion in A's second utterance. B has just eaten maafe and A thinks that the maafe will make him sleepy, as it is a heavy dish. A adds de to the utterance to convince B to accept the proposition 'maafe will make you sleepy' into the CG, as by refusing the coffee, B seems to suggest that it will not.
(39) A: Omar, ma indi la kafe?
O. 1SG bring 25G.O coffee

Omar, shall I bring you coffee?
B: Ah! bàyyi ko waay!
INTRJ leave 3sG.o INTRJ
'No thanks, I'm fine.'
A: Maafe dafa-y nelaw-loo de! Dafa diis.
maafe vFoc.3SG-IPFV sleep-caus de vFoc.3SG be.heavy
'The maafe will make you sleepy though! It is heavy." ${ }^{8}$ (Faye 2012, p. 136)
Another example is shown in (40), which speakers have commented can be used in a pep talk. A speaker suggested to paraphrase $d e$ as 'I am sure that', which I have added to the translation in (40).
(40) Dina-nu am ndam de! fUT-1PL have victory DE '(I am sure that) we will win!' elicited

While the speaker in (40) cannot know whether they will win, they use de to convince the listeners of it, giving the utterance a 'pep talk' quality.

Sometimes, it is hard to tell whether we are dealing with surprise, subjective assertion or lexical intensification. Recall (4), which was an assertion with a predicate of personal taste, rafet 'be cute', repeated here as (41).

[^24]
(41) can be interpreted as a case of lexical intensification, 'the rabbit is cute to a high degree', or as a subjective assertion, the speaker considers the rabbit cute, but realizes other people might not.

In (42), the speaker has been describing a picture that looks like a face in a landscape. She described the nose, the moustache and now the mouth:
(42) Gémmeñ g-i dafa mel ni a-y... tronc
mouth NC.SG-DEF.PRox VFOC.3SG resemble COMP INDF-NC.PL trunk.FR
w-u garab de!
NC.SG-REL tree DE
'The mouth looks like... a tree trunk!'
Dakar
In (42) the speaker says what she thinks the mouth of the face in the picture looks like, the other discourse participant doesn't necessarily have to agree. Thus, this can be seen as a subjective assertion. Alternatively, it can be seen as a surprise assertion: perhaps the speaker didn't expect the the mouth to look like a tree trunk.

Rialland and Robert (2001) show two further examples of de-utterances, reproduced here in (43). They translate (43-a) with 'certainly' and (43-b) with 'I can tell you', suggesting that the speaker is expressing a high degree of certainty towards adding the respective proposition in the CG and trying to convince the addressee to accept the proposition. ${ }^{9}$
(43) a. Tey sedd na de[?].
today be-cold clfoc.3SG DE
'It certainly is cold today!'
b. Man de dama-y bay-i de[?].

1SG.EMPH DE VFOC.ISG-IPFV farm-AND DE
'As for me, I can tell you, I'm going off to farm!'
(Rialland and Robert 2001, p. 911)
Thus, we have seen that pragmatic intensification with $d e$, besides in verum, surprised, and excited assertions, also occurs in subjective assertions. In the next section I show another environment in which de occurs, namely imperatives with a warning flavor.

[^25]
## 7.6 (Warning) imperatives

In this section I show examples of $d e$ in imperatives. While de cannot occur in verum imperatives and advice imperatives, it can occur in warning imperatives. I argue in Section 7.8 that these can also be captured as instances of the speaker marking their high degree of certainty towards adding $p$ to the CG. We have seen in Chapter 4 that de occurs in verum contexts for declaratives, but not for imperatives. The relevant example, (82), is repeated here as (44).

```
(44) A: Tóóg-al! sit-IMP 'Sit down!'
B: *does nothing*
A: Tóóg-al \#de/ waay! sit-Imp.sG de wat 'SIT down!'
```

elicited
In (44) we see that the interjection waay, which is outside of the scope of this thesis, is used in the context where you would get verum in imperatives in German in English, and that $d e$ is infelicitous in that context. The infelicity of $d e$ in (44) is not due to the repetition of the sentence. We see in (45) that $d e$ is felicitous after repetition of a subjective assertion with a modal verb:
(45) A: War nañu dem!
must pfv-3pl go
'We have to go!'
B: *does not pay attention*
A: Ne naa la war na-ñu dem de! say 1sG.Clfoc $2 \mathrm{SG} . \mathrm{O}$ must pFv-1pl go De 'I said we have to go!'
elicited
Furthermore, in Chapter 3, example (19), we have seen that $d e$ is also infelicitous in advice imperatives, repeated here as (46).
(46) Elicitation context: Your friend tells you a man has been following her around lately. You think he might be dangerous. You say:

```
A: Moytu-l daal/ \#de!
be.careful-Imp.SG DAAL DE
‘Be careful!'
```

elicited

However, de can appear in certain imperatives. A context in which de is felicitous is, (18), repeated here as (47). In the context for (47) waay is also felicitous.
(47) Elicitation context: Your friend wants to cross the street, but there is a lot of traffic. You say:

```
A: Moytu-l de/ waay!
    be.careful-IMP.SG DE WAAY
    `Be careful!' elicited
```

Recall from Chapter 3 that a difference between the context in (47) and those in (46) and (44) is that in (47) there is no prior discourse. Thus, imperatives with de seem to be licensed when they are out of the blue. (47) has been commented on by speakers as being a warning, or expressing that the speaker is angry. This 'warning'-feeling has also been described for the similar particle dê in Ivorian French, Diao-Klaeger (2018, p. 97) cites the following web definition: "[dê] exprime dans l'énoncé injonctif une nuance de menace" ("[dê] expresses a feeling of threat in an imperative'). Her own research shows that $d e$ in Burkina Faso French is used with warnings and threats.

As a preliminary test for the difference between $d e$ and $b a$, the particle discussed in Section 7.2, I compared de and $b a$ in imperatives under negation and asked speakers how these sentences could be paraphrased. The data show that in imperatives de, unlike imperative with $b a$, cannot be paraphrased with the lexical intensification adverb lool 'very'.

Thus, (48), with $b a$, can be paraphrased as (49), with lool.
(48) Bul wax ba!
imp.neg speak ba
'Don't talk a lot'
elicited
(49) Bul wax lool!
imp.neg speak very
'Don't talk a lot.'
elicited
(50), with de, on the other hand, cannot be paraphrased as (49). Rather, speakers have said that it expresses a sense of urgency, a threat, a warning, or that the listener shouldn't talk at all.
(50) Bul wax de!

IMP.NEG speak DE
'Don't speak!'

Thus, (48) and (49) show that $b a$ has the same lexical intensification meaning as proposed in Section 7.3, based on 'very', even in imperatives. (50) shows that de only has the pragmatic intensification use in imperatives and not the lexical intensifcation use seen in Section 7.1.

Finally, de also often used with the imperative form of the verb baal 'forgive', in which case, contrary to (47), it is not interpreted as a warning. In Doomi Golo 8 out of the 13 occurrences of baal ma are with de, two examples of which are given in (51) and (52). In (51) the imperative form of the verb baal 'forgive' is used.
(51) Baal ma àq de, Badu.
forgive.IMP 1sG.o prejudice DE B.
'Forgive me my prejudice, Badou.'
(B. B. Diop 2003, p. 29)

However, I propose that this use of de with the imperative form of baal 'forgive' is a spillover effect from utterances with non-imperative forms of baal 'forgive', for example the optative form nga baal 'may you forgive me' in (52). In (52) Yaasin, who is calling Nguirane Faye on the phone, tells him that they need to make the conversation quick, as she is calling long-distance.
(52) Góor g-i, nga baal ma de, waaye fi ma-y woo-tee man NC.SG-DEF.PROX 2SG.OPT forgive 1SG.O DE but here 1SG-IPFV call-ANTIP dafa xaw-a sore.
VFOC.3SG be.almost-vL be.far
'Sir, I'm really sorry, but I'm calling here from pretty far. (B. B. Diop 2003, p. 79)
Thus, de with the verb baal 'forgive' can be used to urge the listener to forgive the speaker, regardless of whether it is used in an imperative, such as (51), or an optative, such as (52).

### 7.7 Grammaticalization processes: between truth and intensification

Before presenting the analysis, I first explore the the grammaticalization paths that occur cross-linguistically between intensifiers and adverbs expressing a high degree of certainty. First, let us look at Bambara (Mande, Niger-Congo), which has the particle $d \varepsilon$. This particle resembles Wolof $d e$, both phonologically and in terms of its usage. Bambara dé occurs in intensives, (53-a), subjective assertions, (53-b) and counterassertions, ( $53-\mathrm{c}$ ). Like the Wolof particles, it does not occur in questions (except for
rhetorical ones) (Prokhorov 2014). The gloss of in the examples in (53) is the original one used by Prokhorov (2014) and stands for 'operator focus'.
(53) a. À ká júgu dé! 3sG QUAL nasty of 'He is very nasty!' Bambara, intensive (Dumestre 2003, p. 321)
b. Í tena táa d ! !

2SG FUT.NEG go.away OF
'Don't go away!' Bambara, subjective assertion (Bailleul 2007, p. 96)
c. À nà-nà d !

3SG come-pfv.ITR of \# (Did Amadou come?-)
$\checkmark$ (Amadou didn't come.-) 'He did come!' Bambara, counter-assertion (Prokhorov 2014, p. 64)

Prokhorov (2014) labels (53-b) an exclamative, however I think it can be classified as a subjective assertion. A clearer example showing subjective assertion is (54).
(54) I kàna taa $\mathrm{d} \varepsilon$

2 SG NEG there of
'Vous feriez mieux de ne pas y aller!'
'You shouldn't go there!'
Bambara, online course ${ }^{10}$
Furthermore, $d \dot{\varepsilon}$ occurs together with the response particle áyi 'no' (Dumestre 2003, p. 322). Dumestre (2003) adds that dé can express surprise. An online Bambara course, from which (54) is taken, furthermore teaches that dé can be translated as 'really' (or 'at all' in a negative sentence) and that it expresses surprise or a warning. Thus, many of the uses of Bambara dé overlap with Wolof de: lexical intensification, counterassertion, subjective assertion, surprise and warning imperatives. As shown in Section 7.6, other Mande languages also have a de-form. Diao-Klaeger (2018) has found that $d e$ in Burkina Faso French, which is probably borrowed from the Mande language Dioula, occurs in warnings, emphasis on the truth and surprise. For Ivorian French, in which Dioula is also widely spoken, Drabo (2018a) has found that the particle $d \varepsilon$ is used in intensification, warnings, emphasis on the truth and expressing certainty. Again, these are all contexts in which Wolof de also occurs.

Prokhorov (2014) claims that Bambara $d \bar{\varepsilon}$ is in a process of grammaticalization from operator focus marker to intensifier. Thus, the 'operator focus' meaning is the first

[^26]sense of $d \dot{\varepsilon}$ and the 'intensive' meaning is derived from that. TRUE $\rightarrow$ INTENSIFIER is listed as an attested grammaticalization path in Heine and Kuteva (2002, p. 302). Other languages in which the same two concepts are marked with the same linguistic means are Hungarian (Uralic), Baka (Ubangian, Niger-Congo) and Mbay (Sara- Bagirmi, Nilo-Saharan) (Jacob 2014). Moreover, very in English comes from verus in Latin which means 'true' (this is also where the term 'verum' comes from). The Middle English word verray used to mean only 'truly' and not 'very'. According to Lorenz (2002) intensification sources can be adverbs expressing a high degree of certainty or speaker commitment. He calls these the modal sources of intensification, which is where both very and really originate from. Lorenz (2002) shows with corpus data that English really is going in the same direction as very, but that whereas very is fully grammaticalized into an intensifier, really isn't yet. Because Bambara still has both uses, the intensification and the verum use, $d \bar{\varepsilon}$ is not grammaticalized in the same way as English 'very' (yet) according to Prokhorov (2014). However, neither Prokhorov (2014) nor Lorenz (2002) explain why this grammaticalization pattern occurs and what the semantic relationship between the two concepts is.

Without historical data one can not claim with certainty that this is the grammaticalization path that de follows, as the other direction of the grammaticalization path, INTENSIFIER $\rightarrow$ TRUE, is also attested, for example in English totally (from Latin totus 'all') (Irwin 2014), Dutch helemaal (which consists of heel 'whole' and the suffix -maal, from Proto-Germanic *mēla 'measure') (Hoeksema 2011), Hebrew legamrey (from Jewish Babylonian Aramaic $l=g a m r-e h ~ ' i n ~ i t s ~ c o m p l e t e n e s s ', ~ B . ~ S u c h a r d ~ p . c ., ~ G r e e n b e r g ~$ and Wolf (2019)) and German voll, which literally means 'full' but is also used as an intensifier and an agreement particle.

However, while there are some word lists of Wolof that go back to the 15th century (Merrill 2020), particles have not been documented in them. Two of the oldest Wolof grammars - Boilat (1858) and Rambaud (1903) - mention de as a truth-related marker only. Boilat (1858) calls dé [sic.] a 'particule d'affirmation' ('affirmative particle'). Kobès (1869) translates dèy [sic.] as 'à la verité' ('for the truth'). Thus, neither mention a possible intensifying function of this particle, suggesting that the path TRUE $\rightarrow$ INTENSIFIER could indeed be the correct one.

In the next section I compare de to similar modifiers in other languages that are more distant from Wolof than Bambara.

### 7.8 Pragmatic intensifiers cross-linguistically

As mentioned in Section 7.4, some intensifiers can also operate on attitudinal scales. According to Beltrama and Trotzke (2019), the ordering of these scales is not based on a gradable property within the propositional content, but the speaker's attitude i.e., how excited, certain, or surprised the speaker is about what they are saying. In the following section I lay out two different analysis that have been proposed for pragmatic intensifiers cross-linguistically: i) non-degree analyses, in which gradable adjectives are relations between individuals and a context, as pursued by McNabb (2012a) Beltrama and Bochnak (2015) and ii) degree-based analyses, as proposed by Bochnak and Csipak (2014), Giannakidou and Stavrou (2009), Giannakidou and Yoon (2011), and Greenberg and Wolf (2018) for different modifiers. Both types of analyses can be used to also account for pragmatic intensification, but make different predictions as to what contexts license the modifier. ${ }^{11}$

In the next section I show that the first option does not get the right contexts for de: it both excludes certain contexts that de does occur in and allows others in which de does not occur.

### 7.8.1 Intensification without degrees

In this section I explore words that appear to be similar to de in other languages, namely mamaš in Hebrew (Semitic, Afro-Asiatic), -issimo in Italian and šému in Washo (isolate?), that have gotten an 'intensification without degrees'-type analysis. I call these modifiers non-degree modifiers and use the abbreviation NDMs. I show that such an analysis should not be pursued for $d e$, as the contexts that license NDMs differ too greatly from the contexts that license $d e$. Examples of the contexts mamaš,-issimo and šému occur in, namely lexical intensification, prototype selection, precisification (or slack regulation), and 'context-based' usage are given (55)-(58). All four uses exist in all three languages, I have randomly selected examples from each language.
(55) Ze haya sirton mamaš xamud. this was video.clip really cute 'This was a really cute video.' lexical intensification, Hebrew (McNabb 2012a, p. 366)

11 A third option, as has been proposed for English totally by Beltrama (2018), is to treat lexical and pragmatic intensification as polysemy rather than trying to bring them down to one general meaning. This is discussed in the appendix in Section 7.10.
(56) t'éliwhu dókto šému k'-ér-i
man doctor šému 3-COP-IPFV
'The man is a real doctor (i.e., not a quack).' prototype selection, Washo (Beltrama and Bochnak 2015, p. 852)
(57) Serve un governo subit-issimo.
is.needed a government immediately-issimo
'We need a government right now.' (Beltrama and Bochnak 2015, p. 850)
(58) A: 7 è un numero primo?

7 is a number prime
'Is 7 a prime number?'
B: Prim-issimo!
prime-issimo
'Absolutely prime!' context-based usage, Italian
(Beltrama and Bochnak 2015, p. 854)
McNabb (2012a) argues that due to the amount of variation in the contexts, the modifiers mamaš in Hebrew and real(ly) in English are not degree modifiers. He derives the degree modifying meaning from a more general manipulation over contexts. In his analysis the Hebrew modifier mamaš takes a property $P$ that is true of an individual $x$ in context $c$ and returns a new property that is true of that individual iff the original property $P$ is true in all contexts of evaluation $c^{\prime}$. Beltrama and Bochnak's (2015) analysis for -issimo in Italian and šému in Washo is in the same vein. They posit that the sorts of predicates that these modifiers combine with receive their interpretation based on parameters that can vary from context to context. The modifiers universally quantify over the contextual parameters that contribute to the interpretation of a context sensitive predicate Pc. Thus if the predicate tall is true for some entity $x$, then $x$ must count as tall not only in the actual context of utterance, $c$, but in all other contexts, $c^{\prime}$, including ones that contain higher standards. This analysis also accounts for slack regulation or precisification and 'clear case' or prototype readings. The difference between de and NDMs is that these modifiers can modify and attach to different word classes, such as adjectives, adverbs, PPs, VPs, and NPs, while de can only attach at the edge of a clause and thus only modify either predicates or propositions. While $d e$ in second position can attach to nouns, I argue in Chapter 9 that this is another sense of $d e$, which is not intensifying.

Therefore, $d e$ is infelicitous in the slack regulation and prototype selection contexts. Example (59) shows that while de is possible after a word like léégi 'now', it doesn't give the meaning 'right now'.
(59) Elicitation context: Amadou has a crush on Bintou, but Bintou doesn't like him. Speaker A thinks Bintou has changed her mind now, but speaker B disagrees.
A: Bintu nop na Amadu léégi.
B. like clfoc.3sG A. now
'Bintou likes Amadou now.'
B: Bintu nop-ul Amadu léégi de!
B. like-Neg.3SG like-NEG.3SG now de
'Bintou DOESN’T like Amadou now!' elicited
Does not mean: 'Bintou doesn't like Amadou right now.'
To get slack regulation léégi can be reduplicated to léégi léégi, as in (61).
(60) Dafa war-a démissioné léégi léégi.
vFOC.3SG must-vL resign. FR now now
'He has to resign right now. ${ }^{12}$
In (60), the scope of the intensification is limited to the adverb, and therefore slack regulation is possible.

Furthermore, while de can appear after a noun - if that noun is the next to final element in the clause - it does not give rise to a 'clear case' or prototype meaning, as shown in (61) for an post-verbal noun. ${ }^{13}$
(61) Togg naa yaasa ginaar de!
cook clfoc.1sg yassa chicken DE
'I DID cook yaasa chicken!'
Does not mean: 'I cooked prototypical yaasa chicken.'
12 From the comment section in the following news item (2014): https://www.senenews.com/actualites/ politique/ouza-diallo-encense-me-wade-et-avertit-macky-sall_89550.html
13 In Chapter 9 it is shown that de can also occur in second position. Again, this doesn't give rise to a prototype selection reading, as shown in (i), nor to a slack regulation reading, as shown in (ii), but rather signals contrastive topics.
(i) Màngo b-i de, Musa moo ko lekk.
mango NC.SG-DEF.PROX DE M. SFOC.3SG 3SG.O eat
'The mango, Moussa ate it.'
Does not mean: 'The MANGO-mango (i.e., prototypical mango), Moussa ate it.'
(ii) Léegi de, nee na-nu noo moom sunu bopp.
now DE say PFV-1PL CLFOC-1PL own 1PL.pOSs head
'Now, we said we own ourselves.'
Does not mean: 'Right now, we said we own ourselves.'
(61) is an response to 'You didn't cook yassa chicken', i.e., a verum context as we have seen in 4 . In (61) de can not modify the noun yaasa ginaar 'yassa chicken', it has to operate on the whole proposition. Thus, even when adjacent to a noun, as in (61), de modfies only the noun and therefore cannot be used in prototype selection. Prototype selection in Wolof can be done by compounding with the noun dëgg 'truth'. (62-a) and (62-b) are examples of the compounds saay-saay dëgg 'real thug' (lit: 'thug truth') and reewu dëgg 'real incisors' (lit: 'incisor truth') respectively.
(62) a. Saay-saay dëgg la.
thug truth CFOC.3SG
'C'est un vrai voyou.'
'He's a real thug.' (J. L. Diouf 2003, p. 486)
b. D-u a-y reewu dëgg, poose la.

IPFV-NEG.3SG INDF-NC.PL incisor truth prothesis CFOC.3SG
'Ce ne sont pas des vraies incisives, c'est un prothèse dentaire.'
'These are not real incisors, it is a dental prosthesis.' (J. L. Diouf 2003, p. 206)

Thus, the only usage de has in common with the NDMs other than lexical intensification, is the so-called context-based or context-licensed usage, which is similar to verum. According to Beltrama and Bochnak (2015) in these cases the context creates uncertainty or disagreement as to whether the property holds. Such discourse configurations can externally coerce a contextual parameter, even if the predicate does not normally have one in its interpretation. If there is no prior context, the modifiers are deemed redundant and therefore infelicitous. This is reminiscent of verum. Crucially, however, this analysis specifically rules out out of the blue uses, as -issimo and šému are infelicitousin those contexts. De, however, isn't. Therefore, pursuing a non-degree intensification analysis as in Beltrama and Bochnak (2015) and McNabb (2012a) would make the wrong predictions for de on multiple levels. The differences in contexts between de and the NDMs are summarized in Table 7.2.

In the next section I look at degree-based analyses.

### 7.8.2 Degrees and gradable attitudes

In this section I look at degree-based analyses for pragmatic intensification. Giannakidou and Yoon (2011) have proposed such an account for metalinguistic comparison. Metalinguistic comparison was first described by McCawley (1988) for English. An example is shown in (63).

|  | $d e$ | NDMs |
| :--- | :--- | :--- |
| lexical intensification | yes | yes |
| verum | yes | yes |
| surprise | yes | no |
| subjective assertion | yes | no |
| precisification | no | yes |
| prototype | no | yes |

Table 7.2: $d e \mathrm{v}$. NDMs
(63) Your problems are more financial than legal.

English
(McCawley 1988, p. 700)
The sentence in (63) can be paraphrased as "it is more appropriate to say that your problems are financial than to say that your problems are legal" (Giannakidou and Stavrou 2009, p. 1). Giannakidou and Stavrou (2009) account for this type of comparatives by positing a gradable propositional attitude $R$ that the speaker holds towards the proposition. Thus, metalinguistic comparison expresses a speaker's attitude. The semantics of MORE $_{\text {ML }}$ (metalinguistic more) is given in (64). The version shown here is the slightly altered version from Bochnak and Csipak (2014).
$\llbracket \operatorname{MORE}_{\mathrm{ML}} \rrbracket^{\mathrm{c}}=\lambda p_{\langle s, t\rangle} \lambda q_{\langle s, t\rangle} \cdot \exists \mathrm{d}[\mathrm{R}(\alpha)(\mathrm{p})(\mathrm{d}) \wedge \neg \mathrm{R}(\alpha)(\mathrm{q})(\mathrm{d})]$
(Bochnak and Csipak 2014, p. 442)
(64) is to be read as "there is a degree $d$ to which an epistemic agent $\alpha$ (usually the speaker ${ }^{14}$ ) holds the attitude $R$ to a proposition $p$ and to which $\alpha$ does not hold the attitude $R$ to a proposition $q^{\prime \prime}$ (Bochnak and Csipak 2014, p. 442). In (63), $R$ is supposed to be an attitude equivalent to either ' $\alpha$ likes $p^{\prime 15}$, ' $\alpha$ is willing to assert $p^{\prime}$ or ' $\alpha$ believes $p$ to be appropriate'. Thus in (64) MORE ${ }_{\text {ML }}$ takes two propositional arguments, $p$ and $q$ and compares them on their degree of appropriateness or willingness to assert the

[^27]speaker holds for them. However, a critique both Bochnak and Csipak (2014) and Morzycki (2016) utter is that $R$ is too unspecific, i.e., there are various reasons that a speaker can consider a proposition 'appropriate', leading to overgeneralization. Thus, 'appropriateness' isn't the right characterization for $R$. I propose that, in (63), in the case of Wolof $d e, R$ stands for how certain the speaker is about adding $p$ to the CG. ${ }^{16}$

If we leave the second proposition $q$ out from the formula in (64), as we are not dealing with metalinguistic comparison in these cases, and keep the attitude $R$, we get the semantics for $d e$ as in (65).
(65) $\llbracket \mathrm{de}_{\text {pragmatic }} \rrbracket^{\mathrm{c}}=\lambda p_{\langle s, t\rangle} \cdot \exists \mathrm{d}\left[\mathrm{R}(\alpha)(\mathrm{p})(\mathrm{d}) \wedge \mathrm{d} \gg_{\mathrm{c}} \operatorname{standard}_{\mathrm{c}}(\mathrm{R})\right]$

Pragmatic de operates on a propositional level. It modifies the degree of the attitude $R$ that the speaker $\alpha$ holds towards the proposition. In this way, the semantics for pragmatic de are very similar to the degree modifier with lexically gradable predicates. The semantics for lexical $d e$, which are the same as for $b a$ in Section 7.3, are repeated here in (66).

$$
\begin{equation*}
\llbracket \operatorname{de}_{\text {lexical }} \rrbracket^{\mathrm{c}}=\lambda \mathrm{G}_{\langle d, e t\rangle} \lambda x . \exists \mathrm{d}\left[\mathrm{G}(\mathrm{~d})(\mathrm{x}) \wedge \mathrm{d} \gg_{\mathrm{c}} \operatorname{standard}_{\mathrm{c}}(\mathrm{G})\right] \tag{66}
\end{equation*}
$$

The difference between (65) and (66) is that in (65) de modifies the degree to which the speaker holds $R$, whereas in (66) de modifies the degree to which the gradable predicate $G$ holds of an entity $x$. In both cases this degree exceeds the standard degree. Thus, de is an intensifier that can operate on either a lexical, or a pragmatic scale. Crucially, it doesn't operate on both scales simultaneously, hence the lack of expressive meaning in (32) in Section 7.4, repeated here as (67).
(67) A: ‘What's your opinion on Wally Seck?'

B: Dafa siiw de, waaye yëngal-u ma. vFOC.3SG be.famous de but excite-NEG.3SG 1SG.O 'He is very famous, but it doesn't excite me.' elicited

Coming back to the verum contexts in Chapter 4, I propose that it is the pragmatic intensification use of $d e$ as in (65) that licenses it in these contexts. This plays out as follows: if $\neg p$ is threatening to be added to the CG, the speaker has reason to boost the

[^28]degree to which they believe that $p$ should be added to the CG. A verum example, (56) from Chapter 4 , is repeated here as (68).
\[

$$
\begin{array}{ll}
\text { A: } & \text { 'Don't you sing?' }  \tag{68}\\
\text { B: } & \text { Wëy-u-ma de! } \\
& \text { sing-NEG-1SG DE } \\
& \text { 'No, I DON'T sing!' }
\end{array}
$$
\]

elicited
In (68) the question 'Don't you sing?' is biased for $\neg p$, ' B doesn't sing', hence B can use $d e$ to mark that they believe it is $p$ ' B sings' that should be added to the CG, not $\neg p$. A 'normal' assertion may not outweigh whatever brought about A's bias towards assuming $\neg p$. Marking their utterance with $d e, \mathrm{~B}$ signals that they are certain enough to defend $p$ even in the face of evidence to the contrary.

This also explains why de was not judged as badly as kat in agreement verum contexts. Expressing a high amount of certainty in those contexts is redundant, but using kat would lead to a presupposition failure, as kat presupposes the negation of the antecedent proposition.

Turning to surprise assertions, which include excitement assertions: these are also uttered in a context where there is bias against $p$. While in verum context, such as (68), it is the addressee who is biased for $\neg p$, in surprise assertions it is the speaker themself. Example (8) from Chapter 6 is repeated here as (69).
(69) Elicitation context: You have a friend who told you she doesn't eat meat. Now, walking down the street, you see her eating meat. You say:
A: A, y-àngi-y lekk yàpp de! INTRJ 2SG-PROG-IPFV eat meat DE 'Hey, you are eating meat!' elicited

In (69) the speaker is epistemically biased for $\neg p$ 'addressee doesn't eat meat', which thus conflicts with the assertion of $p$ 'you are eating meat'. The speaker can use $d e$ to mark which of the two rivaling propositions, $p$ and $\neg p$, has 'won', i.e., which proposition should be the one that enters the CG.

As for subjective assertions, it was mentioned in Chapter 5 that interlocutors react differently to subjective and factive assertions. When the speaker utters a subjective assertion, the other discourse participants accept it into the CG as the speaker's opinion, but not something agreed upon by all participants (Stephenson 2007; Stojanovic 2007). This leads to faultless disagreement. However, if the speaker wants the other discourse
participants to react to the subjective assertion as if it were a factive one, they can use de to 'objectivize' the assertion. Recall example (40), repeated here as (70).
(70) Dina-nu am ndam de! fUT-1PL have victory DE
'We will win!' elicited
(70) is not a factive assertion, as the speaker cannot know whether they will actually win. By adding $d e$, however, from the point of view of the speaker, $p$ should be added to the CG as if it were a factive assertion, and thus a universal truth and not just 'the speaker's opinion, with which the other discourse participant may disagree'. Subjective assertions also illustrate why I consider de to mark 'certainty about adding $p$ to the CG' rather than 'certainty about $p$ '. In a subjective assertion, the speaker themself is already certain about $p$. What they want to achieve, however, is to convince the other discourse participants of $p$.

A similar proposal has been made by Grzech (2020) for the Upper Napo Kichwa epistemic enclitic -mi that marks knowledge which is exclusive to the speaker. We have seen in Chapter 5 that this enclitic can occur in counter-assertive verum contexts. Another situation in which this clitic can occur, according to Grzech (2020), is when a speaker feels their proposition might not be accepted into the CG. In these cases, they can use - $m i$ to signal their epistemic authority and thus that they a reliable source about the content of the proposition. This then encourages the other discourse participants to "[integrate] the proposition into the CG without further questioning" (Grzech 2020, p. 94). A context in which -mi is used in such a way, according to Grzech (2020), is a warning context, as in (71).
(71) Pantalon-da liki-ngui=mi! trousers-ACC rip-2=MI
'You [will] rip [your] trousers!' (parent to a child climbing a tree)
Upper Napo Kichwa, (Grzech 2020, p. 94)
We have seen that warnings in Wolof also license $d e$. This brings us to the imperatives discussed in Section 7.6. Recall that advice imperatives do not license de, while certain command imperatives with a sense of warning, such as (47) - repeated here as (72)- do.
(72) Elicitation context: Your friend wants to cross the street, but there is a lot of traffic. You say:

```
A: Moytu-l de!
    be.careful-IMP.sG DE
    'Be careful!'

I argue that the reason \(d e\) is infelicitous in advice imperatives, is exactly because the speaker does not necessarily want the addressee to obey their command in those cases. In other words, while the speaker in (72) may be convinced that 'be careful' is the right thing to do, they don't want to add the imperative to the CG, but rather they leave it up to the addressee. In contexts like (72), on the other hand, where there is immediate danger if the addressee doesn't obey, the speaker does want to add the imperative to the CG. Thus, they can use de to express their certainty about adding the imperative to the CG.

Analysing de in these contexts as boosting the degree to the speaker holds towards attitude \(R\), certainty about adding \(p\) to the CG, makes the prediction that de should be infelicitous in contexts in which the speaker is not certain about adding \(p\) to the CG. This is borne out in (73), which illustrates that de is infelicitous in an utterance embedded under the verb wódruma 'I am not sure'.
(73) A: 'When does the movie start?'

B: Wóór-u-ma, yaakaar naa huit heure (\#de) be.sure-NEG-1SG hope CLFOC.1SG eight.FR hour.fr DE 'I'm not sure, but I think at 8.'

The pragmatic intensifier analysis of de comes out similarly to the analysis of VERUM in Romero and Han (2004). Recall from Chapter 5 that Romero and Han (2004) have given VERUM the paraphrase "I am sure that we should add the proposition \(p\) to the common ground". However, this doesn't make the right prediction for verum assertions: it licenses verum assertions in discourse-initial contexts as long as the speaker wants to express that they sure that \(p\) should be added to the CG. Considering that \(d e\) is felicitous in discourse-initial contexts, however, an analysis cast in terms of certainty towards adding \(p\) to the CG does make the right predictions for \(d e\). Furthermore, adding the degree element to the attitude captures the link between lexical and pragmatic intensification.

\subsection*{7.9 Summary}

Throughout Chapters 4, 6 and this chapter, I have shown that the particle de can occur in a multitude of contexts: (disagreement) verum, surprise, lexical intensification, subjective assertions and warning imperatives. I have claimed that the core meaning of \(d e\) is that of a degree-modifying intensifier, and the reason it is felicitous in other contexts besides lexical intensification is because these can be seen as instances of pragmatic intensification. De can either modify the degree to which a gradable predicate \(G\) holds of an entity \(x\), as in (74), or the degree to which the epistemic agent (usually the speaker) \(\alpha\) holds \(R\), as in (75), but not both at the same time.
(74) \(\llbracket\) ba/de lexical \(\rrbracket^{\mathrm{c}}=\lambda \mathrm{G}_{\langle d, e t\rangle} \lambda x . \exists \mathrm{d}\left[\mathrm{G}(\mathrm{d})(\mathrm{x}) \wedge \mathrm{d} \gg_{\mathrm{c}} \operatorname{standard}_{\mathrm{c}}(\mathrm{G})\right]\)
(75) \(\llbracket \mathrm{de}_{\text {pragmatic }} \rrbracket^{\mathrm{c}}=\lambda p_{\langle s, t\rangle} \cdot \exists \mathrm{d}\left[\mathrm{R}(\alpha)(\mathrm{p})(\mathrm{d}) \wedge \mathrm{d} \gg_{\mathrm{c}} \operatorname{standard}_{\mathrm{c}}(\mathrm{R})\right]\)

I have compared \(d e\) with \(b a\), which is only a lexical modifier. Thus, \(b a\) only has the meaning in (74), and not in (75). I have also compared de to similar modifiers in other languages. Specifically, I have looked at dé in Bambara, mamaš in Hebrew, totally and real(ly) in English, -issimo in Italian and šému in Washo. These modifiers did not form a homogeneous group. Based on the type of modification these particles can do, the semantic space related to intensification can be carved up in lexical intensification and three types of pragmatic intensification: picking out a prototype, precisification and the amount of certainty the speaker has, as illustrated in (76).


While certain pragmatic intensifiers cross-linguistically, such as real(ly), mamaš, ̌̌ému and -issimo can pick out a prototype or precisify, de cannot. For this reason I have not considered analyses based on non-degree modification, such as the ones proposed by McNabb (2012a) and Beltrama and Bochnak (2015), as those allow for the modifiers to appear in those two contexts. Degree-based analyses, such as the ones in Giannakidou and Stavrou (2009) and Greenberg and Wolf (2018) operate on speaker attitudes and thus exclude the prototype and precisifcation contexts.

This concludes the analysis of sentence-final \(d e\). In Chapter 9 I show that \(d e\) in second position can be found after contrastive topics, and propose that de is thus polysemous. First, in the next chapter I return to the agreement particles kay and gaa from Chapter 4.

The following section is an appendix to this chapter in which I compare the contexts in which the particles de and kat can occur with the contexts in which totally can occur.

\subsection*{7.10 Appendix: Comparing de and kat with totally}

As a direction for future research, I want to explore the possibility of a more detailed analysis for de in the vein of the analysis for totally presented in Beltrama \((2016,2018)\). In this section I compare the contexts de, kat and totally appear in.

As a pragmatic intensifier totally appears in the following discourse-initial contexts: i) outlandish assertions (i.e., surprise, including excitement assertions) \({ }^{17}\) and ii) subjective assertions. It furthermore appears in responsive assertions when responding to i) polar questions and ii) disagreement with a previous assertion (Beltrama 2018). Finally, totally is infelicitous in questions and command imperatives. According to Beltrama (2018) the pragmatic contribution of totally can be informally stated as (77). \({ }^{18}\)
(77) \(\operatorname{ASSERT}(\) totally \((p))=\) The speaker believes that there should be no option other than adding \(p\) to the CG.
(Beltrama 2018, p. 26)
In this section I compare the contexts totally and de can occur in. I add kat to the comparison as well, considering it can appear in a subset of the contexts de can occur in as well. The relevant examples for the discourse-initial contexts are given or repeated in (78)-(81-b)

> a. *Taxaw-al, dañu-y dem Ndar suba de/ kat?
> stop-IMp.sG vfoc.1PL-IPFV go Ndar tomorrow DE KAT
> 'Wait, are we going to Ndar tomorrow?'

17 The difference between what Beltrama calls outlandish assertions and surprise assertions, is that in outlandish assertions the speaker thinks that the addressee is biased against \(p\), whereas with surprise assertions the bias can also be within the speaker.
18 The formal definition is as in (i):
(i) \(\quad \operatorname{Assert}(\) totally \((p))=\lambda \mathrm{w} . \forall \mathrm{w}^{\prime} \in \operatorname{ConvS}(\mathrm{w})\left[\forall \mathrm{PCG} \in \operatorname{PS}(\operatorname{Assert}(p))\left(\mathrm{w}^{\prime}\right)\left[\forall \mathrm{w}^{\prime \prime} \in \mathrm{PCG}\right]\right]: p\left(\mathrm{w}^{\prime \prime}\right)=1\) (Beltrama 2018, p. 27)

In prose: in every world that fulfills the speaker's conversational goals all projected sets of the assertion modified by totally are homogeneous with respect to \(p\). A Projected Set (PS) is homogeneous with respect \(p\) iff all Projected Common Grounds (PCGs) are homogeneous. A PCG is homogeneous with respect \(p\) iff for all worlds \(w\) in PCG \(p\) is true in \(w\). (Beltrama 2018, pp. 25-27)
b. \#Should I totally click on that link? \({ }^{19}\)
English, polar question (Beltrama 2018, p. 3)
(79) SCENARIO: A goat walks in. A sees the goat and is pretty sure that it is a goat. \(B\) hasn't seen the goat, yet.

A: B-enn bëy m-ung-i n-i de/ kat!
nc.sG-some goat 3SG-PROG-PROX NC-PROX DE KAT
'There is (totally) a goat!' Wolof, outlandish assertion
A: There is totally a goat! English, outlandish assertion (Beltrama 2018, p. 35)
(80) a. Loo yor ni-ii? A-y njombor la-ñ de! what.2SG carry like.this-PROX INDF-NC.PL rabbit CFOC-3PL DE 'What are you carrying? It's rabbits!' Wolof, excited assertion
b. Yaw kat, sëriñ b-i, yaw moom, sa 2SG.EMPH KAT marabout NC.SG-DET.PROX 2SG.EMPH MOOM 2SG.POSS xam-xam dafa réy kat! knowledge vfoc.3sG be.big Kat
'That, whoa! Wow, you, marabout, you, your knowledge is vast!' Wolof, excited assertion
c. Totally met a vegan at my boyfriend's grad school orientation. I was just so freaking excited I had to share. English, excited assertion (Beltrama 2016, p. 67)
(81) a. Dina-nu am ndam de /\#kat! fut-1pl have victory de kat
'We will win!'
Wolof, subjective assertion
b. The Bulls totally will make the playoffs. English, subjective assertion (Beltrama 2018, p. 9)

Thus, totally and de share a similar distribution in out-of-the-blue contexts: totally and de both occur in outlandish assertions, excitement assertions, which are both types of surprise assertions, and in subjective assertions. Kat, on the other hand, does not occur in subjective assertions. When it comes to imperatives, however, totally and de seem to drift apart. Recall from Section 7.6 that \(d e\) is felicitous in certain imperatives. Example (50) is repeated here as (82).
(82) Bul wax de!
neg.imp talk de
'Don't speak!'
Wolof, warning imperative

\footnotetext{
19 Grammatical as a rhetorical question, not an information-seeking question (Beltrama 2018, p. 3)
}
(83) is an example of totally in an imperative in English, where according to Beltrama (2018) it is not ungrammatical, but it is only possible when the imperative in question is not a command imperative, but an advice imperative. We have seen in Chapter 3 and again in Section 7.6 that \(d e\) is infelicitous in advice imperatives.
(83) Totally click on that link! English, advice imperative (Beltrama 2018, p. 3)

Interestingly, for kat, three of the old grammars - Boilat (1858), Kobès (1869) and Rambaud (1903) - mention it marks certainty or a warning and all three also show a usage of kat in an imperative, such as (84). I, on the other hand, was not able to document the usage of kat in imperatives.
(84) Bayi ma kat.
leave.IMP 1SG.O кAt
'Laisse-moi donc.'
'So, leave me.'
(Rambaud 1903)
An example of kat being translated as 'certainly' is given in (85).
(85) L-i ngaǎ ǔt rër-ul kǎt
nc.sG-Def.prox 2sG.s search be.lost-neg.3SG KAT
'Ce que tu cherches ne certes pas perdu'
'What you are looking for is certainly not lost.'
(Kobès 1869, p. 301) \({ }^{20}\)
(84) and (85) are contexts in which de can be found. This suggests that de may be pushing kat away in modern Wolof. Considering most of the speakers I worked with were in Dakar, it could also be the case that kat is still used as in (84) and (85) by speakers outside of Dakar.

Another aspect in which de and totally don't overlap are the responsive uses. According to Beltrama and Bochnak (2015) totally is felicitous in responses to polar questions, (86), and in counter-assertions, (88) but not in agreeing assertions, (90). However, whereas the judgments Beltrama (2018) presents for totally in these contexts are solid, for \(d e\) I am unsure about its felicity. As mentioned in Chapter 4 roughly one third of the speakers I consulted accepted de in an agreement context. A more detailed and quantitative study would be needed in order to get the exact distribution of \(d e\) in

\footnotetext{
20 Spelling as used by Kobès (1869) preserved.
}
agreement versus disagreement contexts. The relevant examples are given or repeated in (86)-(92)
(86) A: Did Luke get married at 25?

B: He TOTALLY got married at 25! English, positive response to polar question
(Beltrama 2018, pp. 31-32)
(87) A: ‘Do you sing?'
a. Waaw, damay wëy ?de/ \#kat.
yes VFOC.1SG-IPFV sing DE KAT
'Yes, I DO sing.' Wolof, positive response to polar question
(88) A: Luke didn't get married at 25 .

B: No! What are you talking about! He TOTALLY got married at 25 ! English, counter-assertion
(Beltrama 2018, p. 15)
(89) A: 'Fatou looks good today.'

B: Déédéét, rafet-ul de/ kat.
yes be.pretty-NEG.3SG De KAT
'No, she DOESN'T look good.' Wolof, counter-assertion
(90) A: Luke got married at 25 .

B: \#Yes! He TOTALLY got married at 25 English, agreeing response to assertion
(Beltrama 2018, p. 31)
(91) A: 'Fatou looks good today.'

B: Waaw, rafet na ?de \#kat.
yes be.pretty 3sG.clfoc de kat
'(Yes,) she DOES look good.' Wolof, agreeing response to assertion
However, B's response in (92) can be seen as an example of agreement with an assertion.
(92) A: Maafe dafa-y nelaw-loo de! Dafa diis. maafe vfoc. 3 SG-IPFV sleep-caus de vfoc.3SG be.heavy 'The maafe will make you sleepy though! It is heavy.'
B: Wax nga dëgg de.
say 2SG.s truth DE
'You are right.' Wolof, agreeing response to assertion (Faye 2012, p. 136)

Thus, it is not clear at this point whether de is felicitous in an agreement context or not. Since the specific distribution of totally in the responsive contexts is a crucial element for Beltrama and Bochnak's analysis, I cannot simply transfer this analysis to \(d e\) without having solid judgments for its felicity in these contexts. For the details of the analysis, the reader is referred to Beltrama and Bochnak (2015). However, in a nutshell, using the Farkas and Bruce (2010) discourse model, Beltrama (2018) proposes that totally is licensed whenever the Projected Set is not homogeneous, i.e., when there is a possibility that \(\neg p\) will enter the CG. Note that this discourse condition is similar to, but weaker than, the discourse condition for verum posited by Gutzmann, Hartmann, and Matthewson (2020), as in the latter \(\neg p\) has to be salient. For totally, it is enough if a CG with \(\neg p\) presents a logical possibility, which is the case for neutral polar questions, subjective assertions, outlandish assertions and whenever verum is already present. \({ }^{21}\)

Table 7.3 summarizes the contexts in which de, kat and totally appear. Considering all three particles also occur in verum contexts, I added the English verum accent to the comparison.
\begin{tabular}{|l||l|l|l|l|}
\hline & totally & de & kat & verum accent \\
\hline lexical intensification & yes & yes & no & no \\
surprise assertion & yes & yes & yes & no \\
subjective assertion & yes & yes & archaic? & no \\
question & no & no & no & yes \\
imperative & only advice & (only?) warning & archaic? & yes \\
positive response to polar q & yes & \(?\) & no & sometimes \\
agreement with assertion & no & \(?\) & no & sometimes \\
disagreement with assertion & yes & yes & yes & yes \\
\hline
\end{tabular}

Table 7.3: Wolof de and kat and English totally and verum accent compared.

In Table \(7 \cdot 3\) we see that regarding its felicity in discourse-initial utterances, de patterns like totally for most of the contexts: neither occurs in questions and both occur in surprise and subjective assertions. As for the imperatives, both modifiers only occur in a sub-part of imperative types, but probably not the same sub-part. We also see that while de patterns like totally, kat patterns neither like totally nor like a verum accent.

21 Another aspect in which totally and de differ is in their lexical intensification function. De can operate on open scales, as in (2), (4) with verbs like diis 'be heavy' and rafet 'be pretty' respectively, and lower closed scales, as in (32) with the verb siizw 'famous'. Totally, on the other hand, can only operate on upper-bounded closed scales. The following examples with open-end scales are infelicitous with totally for the intended, lexical, readings. I don't have data of de with closed scales.
(i) a. \#He is totally famous.
b. \#The shoes are totally heavy!

Unlike totally, kat does not occur in subjective assertions. Unlike a verum accent, kat does occur in surprise contexts. Thus, while de is closer to totally, kat seems to be in between totally and a verum accent. However, it could very well be the case that kat used to be more like \(d e\), judging from the two examples (84) and (85) from Rambaud (1903) and Kobès (1869) respectively.

\section*{8 Concessive particles}

\subsection*{8.1 Introduction}

Concessives are described in the literature as constructions that consist of an antecedent and a consequent which are both entailed, despite the fact they are normally not true simultaneously. That is to say, although \(p, q\) entails both \(p\) and \(q\), contrary to the expectation 'if \(p\), then \(\neg q\) ' (Crevels 2000; König 1988). Another definition, from Anscombre and Ducrot (1977), as cited in Sæbø (2003, p. 258) is based on the role of concessions in argumentation: "The first sentence counts pro, the second sentence counts contra some conclusion". In this chapter I will show that an approach based on Questions under Discussion captures the contribution of concessive particles better than an approach based on 'expectations'.

Besides hypotactic constructions, which in English are formed with the subordinator although, some languages also have correlative concessive constructions, which are formed with two markers of which the second is the adversative coordinator 'but'.

Wolof is one such language: there are two particles in Wolof that signal correlative concessive constructions, namely naam and gaa, which co-occur with the adversative connectors waaye or wànte 'but'. These particles can both also be used as response particles. Furthermore, as seen in Chapter \(4, g a a\) is also an agreement particle that occurs in verum contexts. Naam does not have this function. Naam can also not appear in second position, while gaa can. In what follows, I will first elaborate on their usage in concessive constructions in Section 8.2 and then on their usage as response particles in Section 8.3. In Section 8.4 I show how agreement response particles are related to concessives by comparing naam and gaa to concessive particles in other languages. In Section 8.5 I show that while naam is grammaticalized into a concessive particle for all speakers, there are two groups of gaa-users: those for whom it is a concessive particle, and those for whom it is an agreement particle. In Section 8.6 I explore how the pragmatic contribution of concessive particles relates to the fact that adversative coordinators like but have two distinct uses: Semantic Oppositon and Denial of Expectation (Lakoff 1971). Building on proposals from Jasinskaja and Zeevat
(2008), Karagjosova (2008), Sæbø (2003), and Umbach (2005), I propose that concessive particles signal the Denial of Expecation use of the adversative coordinator. Concessive particles are sensitive to the discourse strategy in the sense of Roberts (1996). There are two conditions that need to be fulfilled in order to license a concessive particle: i) the super-question is a polar question and ii) the answer to the second sub-question is negative. In Section 8.8 I compare Wolof and the languages discussed in Section 8.4 to two Slavic languages, Russian and Macedonian. In Section 8.9 I compare the QUD analysis of but to non-Information Structure based approaches to illustrate how the QUD approach is superior. Section 8.10 concludes.

\subsection*{8.2 Gaa and naam in concessives}

This section presents the data I have on gaa and naam. Both are rare among my consultants and thus I only present elicitation data of them, no data from recorded conversations. The total frequency of the particles can be found in Chapter 11.

Correlative concessions in Wolof always have the structure of naam and gaa in the first clause and a word for 'but', waaye or wànte, connecting it with the second clause. \({ }^{1}\)

\subsection*{8.2.1 Gaa}

We have seen gaa before in agreement verum contexts, such as (53) from Chapter 4, repeated here as (1).
(1) A: 'Today Fatou looks good.'

B: (Naaw,) rafet na gaa.
yes be.pretty 3sG.clfoc GAA
'(Yes,) she DOES look good.' elicited

\footnotetext{
1 Wolof has two adversative coordinators: waaye and wànte (or wànde). I am not aware of any meaning difference between the two. Munro and Gaye (1997), J. L. Diouf (2003) and Faye (2012) list them as synonyms. The only difference is that I have perceived waaye as being slightly more frequent than wànte. A preliminary search in my available written corpora corroborates this. Wikipedia turned up 277 hits for waaye and 11 for wànte. In Doomi Golo (B. B. Diop 2003) there were 25 tokens of wànte and 364 of waaye and in the Bible (Les Assemblées Evangéliques du Sénégal and La Mission Baptiste du Sénégal 1987) only waaye was used. In Bàmmeelu Kocc Barma (B. B. Diop 2017), on the other hand, there were 210 tokens of waaye and 235 of wànte. Old grammars, such as Boilat (1858, p. 354) and Kobès (1869, p. 311) only mention wànte as an adversative conjunction. Thus, it could be the case that wànte is an older form that is being replaced by waaye. An additional player is the French loan mais, which is also frequent, especially in urban Wolof. In this chapter I put forward both examples containing waaye and wànte, depending on the source. In the running text, however, I usually refer to the adversative conjunction in Wolof as waaye. As far as I know, the same properties hold for wànte and mais as for waaye.
}

I have analyzed gaa as an agreement particle. Some speakers have commented that it means 'I agree one hundred percent', i.e., emphatic agreement. However, for other speakers, gaa has a concessive meaning, as shown in (2).
(2) A: 'Fatou looks good today.'

B: Fatou rafet na gaa, waaye misoor-am
F. be.pretty 3 SG.clfoc gat but headwrap-3sG.poss
rafet-ul.
be.pretty-NEG.3SG
'Sure, Fatou looks good, but her headwrap is not pretty.' volunteered
In (2) the speaker concedes that Fatou looks good, but they don't fully agree with the statement and add that her headwrap did not look good. The sentence in (2) can also end in the first clause after gaa, i.e., without continuation in the second clause. For speakers which interpret gaa as concessive, however, there is still the feeling that the speaker does not fully agree with the interlocutor and that there is a 'but' coming up.

There were six speakers I consulted who interpreted gaa as concessive, of which five were from the Kajoor area, around Thiès and one from Dakar. The speakers who interpreted it as full agreement were from Ndar, Sanar (Waalo area), Ndeme (Bawol area) and also Dakar. Other speakers from Dakar did not recognize the particle as part of their language (see Chapter 4).

The example in (3) shows that for speakers that interpret gaa as concessive, it doesn't need to be followed up by a second clause to convey that meaning.
(3) A: 'How are you?'

B: Maa-ngi fi gaa.
1SG-Prog here gat
'Sure, I'm fine' / 'I'm doing so-so.' volunteered
The example in (3) was volunteered by a speaker to illustrate the use of \(g a a\). Without gaa, (3) is a formulaic answer to a greeting, meaning 'I am doing fine' (lit: 'I am here.'). The speaker commented: "When you say this with gaa, you mean there is something which causes you to not feel so great". Furthermore, in the two Boris Bubakar Jóop novels I have available, Doomi Golo and Bàmmeelu Kocc Barma, gaa occurs a total of 25 times, and only in clause-initial and clause-final position. Interestingly, it also only occurs with waaye or wànte, as in (4).
(4) Ñàmbi j-i xaw na-a dëgër gaa, wànte cassava nc.sG-Def.prox be.almost 3SG.Clfoc-vl be.hard gat but

1-i Aatu Sekk di nekk mag yépp, bëñ yi
nc.sG-def.prox A. S. ipfv exist be.grown nc.sG-all tooth nc.pl-def.prox yàqo:og-u-ñu.
be.spoilt-yet-NEG-3PL
'The cassava was almost hard, but Aatu Sekk was full grown, his teeth hadn't
gone bad yet.'
(B. B. Diop 2003, p. 224)

This suggests that for the author gaa is concessive. In the next section I show examples of the particle naam, which, like gaa in the Jóop novels, only occurs at the edge of a clause and together with an adversative connector.

\subsection*{8.2.2 Naam}

Naam is the other particle that appears in such concessive constructions. J. L. Diouf (2003, p. 164) lists naam as a synonym of gaa, both translated as 'certes' in French. However, for naam J. L. Diouf only gives the translation 'certes', which in French is concessive, but for gaa also 'certainement', which in French indicates emphatic agreement. Speakers who interpret gaa as concessive have commented that it is interchangable with naam. Examples of sentences with naam from previous literature are shown in (5) and (6).
(5) Jàng na naam, waaye k-enn gërëm-u ko.
study clfoc. 3 SG naAm but nc.sG-some praise-NEG.3SG 3SG.O 'She really studied but nobody praised her.' \({ }^{2}\) (Munro and Gaye 1997, p. 123)
(6) Xam naa ko sax naam, waaye du-ma ko ko jox. know clfoc.1sg 3 SG.o even nat but neg-1sG 3 SG.o 3 SG.o give 'Je le connais même certes, mais je ne le lui remettrai pas'
'I even know him, but I will not give it back to him.' (J. L. Diouf 2003, p. 164)
In the entry for naam in Munro and Gaye's dictionary it is translated as 'for sure', 'really (emphatic)' (Munro and Gaye 1997, p. 123). Nonetheless, when I presented consultants with only the first clause of (5), i.e., cut off after naam, they all reported that there is an implication that her studying was to no avail. Moreover, the sentence I constructed in (7), in which the second clause is not negated and the clauses are connected with te 'and' instead of waaye 'but', was deemed infelicitous by everybody asked. The infelicity of naam in (6), in which the second clause does not contrast with the first clause, suggests that naam is indeed a concessive particle and not just 'really'.

\footnotetext{
2 Translation is Munro and Gaye's
}
(7) \#Jàng na naam, te ñ-ëpp ko gërëm/ ñ-ëpp na-ñu ko study ClFOC.3SG CONC and NC.PL-all 3SG.O praise NC.PL-all CLFOC.3PL 3SG.O gërëm.
praise
'She really studied and everybody praised her.' \({ }^{3}\)

Thus, unlike gaa, naam is heard as concessive by all speakers polled, regardless of region.
Two additional elicited examples are shown in (8) and (9).
(8) Dafa gàtt naam, waaye dafa gaaw. VFOC.3SG be.short NAAM but VFOC.3SG be.fast 'S/he is short, but s/he is fast.' elicited

In (8) naam indicates that the person is both short and fast, despite there being an 'expectation' that short people are not fast.
(9) A: Ndax Mamadou ak Awa ñoom ñ-ëpp dina-ñu dem ci

Q M NCONJ A 3PL.EMPH NC.PL-all FUT-3PL go LOC
xew-xew b-i?
event NC.SG-DEF.PROX
'Will Mamadou and Awa both go to the party?'
B: Mamadou, dina dem naam, waaye Awa, du dem.
M. FUT.3SG go NAAM but A. NEG.3SG go
'Mamadou will go, but Awa will not go.' elicited
In (9) naam in the answer indicates that only one person will come to the party. One could try to attribute that to the 'expectation' in the question that both will go. However, I argue in Section 8.7 that naam in (9) is not licensed because of an expectation, but because of the shape of the question under discussion.

Though usually co-occurring with waaye 'but', and speakers indicating that naam requires a second clause linked with waaye, I've found one example of naam without waaye, namely (10).
(10) Fi ñu tollu am-ag-ul ñakk b-u ci mën-a here 3PL.s reach.a.point have-yet-3SG.NEG vaccine NC.SG-DEF.PROX LOC can-VL aar ni naam, soxla na-ñu ko.
protect like.this NAAM need PFV-3PL 3SG.O
3 Both the follow up ñëpp ko gërëm 'nobody praised her', with the zero aspect (subjunctive) verbal conjugation, and ñëpp na-ñu ko gërëm with the clausal focus form were judged as equal.
'Currently, there is not any vaccine so far that can protect this way, however one needs it.' 45
(Wikipedia contributors 2004a)

There is no connector between the two clauses in (10) whatsoever. Hamine Wane (p.c.) suggests that naam on its own means 'of course', but in (10) should be translated as 'however'. It could be the case that some speakers are re-analying naam as a concessive connector. However, since this is the only example I have of naam without waye, I will leave this example out of the analysis in Section 8.7

\subsection*{8.2.3 Gaa and naam as second position particles?}

Another difference between gaa and naam, other than naam lacking the verum use, is that gaa can occur in second position, while naam cannot. Example (11), in which naam occurs after a topic, is one that I constructed myself and asked for felicity judgements of. It was deemed ungrammatical by everybody asked.
(11) *Kii
naam, dafa jàng \(b-u\) baax!
NC.SG-PROX.DEM NAAM VFOC.3SG study NC.SG-REL be.good
Intended: ‘This one, she really studied well!'
elicited

One speaker suggested to use moom instead of naam in (11). Moom signals contrastive topics, see Chapter 9. The examples in (12) and (13) show that gaa is felicitous after topics.
(12) A: Eske Ndar neex na?

Q Ndar be.sweet clfoc.3SG
'Is Ndar nice?'
B: Ndar gaa neex na!
Ndar gaA be.sweet clfoc.3sG
'Ndar, indeed, is nice.' elicited
(13) A: Eske xam nga, garage bi, fu mu nekk?

Q know CLFOc.2SG garage Nc.sG-DEF.PROX where 3SG.s be.located 'Do you know where the garage is?'
B: Garage bi
gaa, sori-wul.
garage NC.sG-DEF.PROX GAA far-NEG.3SG
'The garage, indeed, it s not far.' volunteered
Speaker comment: 'You cannot use gaa here if you start the conversation.'

\footnotetext{
4 The third plural form is also the impersonal form.
5 Fi ñu tollu (lit: 'we have reached a point here') is an idiomatic expression meaning 'currently'.
}

It is possible that the second position placement is generally impossible with concessives; this would subsume the difference between gaa and naam. Recall from (4) that in the Jóóp novels gaa does not occur in second position and is only used in concessives. If the concessive use requires the particle to be at the edge of the clause it scopes over, concessive gaa, like naam should also not be able to follow topics. At this point, I don't know if this is the case. Two people I asked did not like gaa after topics in concessions, but this issue requires more systematic testing. (14) shows that second position gaa can occur in a concessive, although in (14) it is not clear whether this is a conversational implicature or not.
(14) A: Amina jàng na b-u baax!
A. study CLFOC.3SG NC.SG-Rel be.good
'Amina studied hard!'
B: Moom gaa, jàng na b-u baax, waaye k-enn
3SG.EMPH GAA study CLFOC.3SG NC.SG-REL be.good but NC.SG-one
gërëm-u ko.
praise-NEG.3SG 3SG.O
'She studied hard indeed, but nobody praised her.' (H. Wane p.c.)

\subsection*{8.2.4 Other ways of expressing concession}

For completeness, it should be noted that correlative constructions are not the only way to mark concession in Wolof. First, the use of the particles naam and gaa is always optional, as a concessive can also be formed with just an adversative connector, as in (14).
(15) Rafet na wànte dëgër-ul.
be.pretty 3SG.clfoc but hard-neg.3SG
'It is pretty, but not firm.' (Faye 2012, p. 56)
Additionally, the adverb batey 'still' (translated as 'malgré' in J. L. Diouf (2003), lit: 'until today') can be used, either with the connector te 'and' as in (16) or waaye 'but', as in (17).
(16) B-enn loxo laa-y bëre:ek yow te batey dinaa la nc.sG-one arm CFOC.1SG-IPFV wrestle:COM 2SG.EMPH and still FUT.1SG 2SG.O daan.
throw
'Je lutterai avec toi d'une seule main et malgré cela je te terrasserai.'
'I will wrestle you with one hand and still I will throw you down'
(J. L. Diouf 2003, p. 20)
(17) Sonn naa, waaye batey dinaa dem. be.tired clfoc.1sg but still fut.1sg go 'Je suis épuisée, néanmmois je partirai'
'I am exhausted but I will go nevertheless.'
(J. L. Diouf 2003, p. 430)

The exact difference between the use of batey with either the conjunctive coordinator te or the adversative coordinator waaye, and similarly, the difference between but still and and still in English, remains for further research.

Lastly, besides the adverstive connector waaye 'but', there is also a subordinating concessive connector, doonte 'although'. An example with doonte is shown in (18).
(18) Doonte nga-y mag-am, du-ma la gëm.
conc 2SG-IPFV older.sibling-3SG.poss NEG-1SG 2SG.o believe 'Bien que tu sois son frère, je ne te croirai pas.'
'Although you are his brother, I won't believe you.' (J. L. Diouf 2003, p. 59)
Further research is needed to determine whether doonte and batey can occur together with the particles gaa and naam. I asked one consultant for their judgment on the B answer in (19), and they corrected it to \(B^{\prime}\), suggesting that i) naam does not go together with batey and ii) that waaye 'but' is better than te 'and' in this context.
(19) A: 'What about Amina?'

B: ?Amina, jàng na b-u baax naam, te batey k-enn
A. study clfoc.3sG nc.sG-Rel be.good naAm and still nc.sG-one gërëm-u ko.
praise-NEG.3SG 3SG.O
\(B^{\prime}\) : Amina, jàng na b-u baax, waaye batey k-enn
A. study clfoc.3SG NC.sG-Rel be.good but still NC.sG-one gërëm-u ko.
praise-NEG.3SG 3SG.O
'Amina studied hard, but still nobody praised her.' elicited

\subsection*{8.3 Response particles}

As for gaa, it has been shown in Chapter 4 that it is the only particle that occurs in verum contexts that can also occur on its own as a response particle. The relevant example is repeated here as (20).
(20) A: 'Today, Fatou looks good.'

B: Gaa, Fatou rafet na.
gaA F. be.pretty clfoc. 3 SG gaA
'Indeed, Fatou looks good.'
B': Gaa.
'Indeed.'
Out of the 6 speakers who interpret gaa as concessive, 5 said that it can occur on its own as a response particle and 1 said that is in ungrammatical on its own.

Naam can also occur at the beginning of a clause, with the same concessive meaning as when it occurs at the end. This is shown in (21), which is parallel to (5).
(21) Naam, dafa jàng b-u baax, waaye k-enn gërëm-u nAAM VFOC.3SG sttudy nc.SG-REL be.good but nC.SG-some praise-NEG.3SG ko.
3SG.O
'Yes, she studied well, but nobody praised her.' elicited
While not all speakers recognized naam in concessives, all speakers used naam as a response particle. I heard this frequently around me, though I have no recording of it. Unlike gaa, naam is not used as an agreement response particle. It only functions as a response particle when you reply to someone calling out your name (cf. yes? in English). For example, in the 1977 film Ceddo, the character Farba Diogomay responds to someone calling his name with naam. \({ }^{6}\) Another example, from Doomi Golo, is given in (22).
(22) A: Badu Taal ?

B: Naam.
(B. B. Diop 2016, p. 88)

From this specialized use as a response particle to one's name, naam has also taken on the meaning 'last name', i.e., someone can introduce themselves as: Mamadu, naam Draame. 'Mamadou, last name Drame.' (J. L. Diouf 2003, p. 164)

\footnotetext{
6 https://youtu.be/9ipcync79CI?t=4327 (1:12:07)
}

According to both J. L. Diouf (2003) and Munro and Gaye (1997), the origin of naam is the Arabic nagam. In Classical Arabic, nagam has a broader meaning, namely an agreement response particle (Holes 1990; Omar and Nydell 1975). (23) and (24) are examples of this use from Gulf Arabic.
(23) A: aHmad raayiH landan, muu chidhi

Ahmad a.part-go London not like-that
'Ahmad had gone to London, hadn't he?'
B: nagam
'Yes.'
(Holes 1990, p. 17)
(24) A: maa gindik fluus, muu chidhi not with-you money not like-that 'You haven't any money, right?'
B: nagam
'Right.'
(Holes 1990, p. 17)

Nagam is also used to acknowledge being spoken to, shown in (25).
(25) A: Ya muhammad!

B: nagam. (Omar and Nydell 1975, p. 40)

The particle naam as a response particle is also borrowed from Arabic into (Maasina) Fulfulde. According to Osborn, Dwyer, and Donohoe (2012, p. 237) naamu or naam in Maasina Fulfulde means 'right, I hear you', or is used as an answer to being called, which they refer to as a 'deferential response'.

Thus, we see that both naam and gaa are originally response particles. While gaa is an original Wolof word, naam is borrowed from Arabic. For naam it is more clear that the response particle meaning is the original one, because it is retained in Arabic. This grammaticalization path from response particles to concessive markers is crosslinguistically attested (Heine and Kuteva 2002). This is elaborated on in the next section with examples from English, German and French.

\subsection*{8.4 Concessive particles other languages}

König (1985) lists several potential grammaticalization sources for concessive markers, one of which he calls 'factual'. Two concessive particles that come from this source are German zwar 'it is true' and French certes 'certainly'.

Burston (2006) labels certes a assertive-concessive adverb, similar to English admittedly. An example from present-day French is given in (26)
(26) Mozart était certes joué, mais il n'était pas vraiment pris au sérieux Mozart was certes played but he neg-was neg really taken in serious à cette époque.
in this era
'Admittedly, Mozart's work was played, but he was not taken seriously in those days.'
(Burston 2006, p. 290)

Like naam, while it originally was a response particle, as shown in (27), it gradually became associated with 'but' and now only retains its concessive meaning.
(27) A: Il vous a dit que je n'amais plus le 3SG.M 2SG.FORM have.3SG.PRES say.PTCP that 1SG NEG-love.PST more DEF.M prince?
prince
'Did he tell you that I didn't love the prince any longer?'
B: Certes.
'Yes indeed.'

Zwar, which marks concession in German (König 1988; Leuschner and Van den Nest 2012) comes from Middle High German ze ware 'truly'. The synchronic use of zwar is always in combination with an adversative connector such as aber 'but', or trotzdem 'however' (Büring and Hartmann 2015). An example with aber 'but' is given in (28). A usage of zwar from the 16 th century is shown in (29). Nowadays, zwar is no longer used as in (29). \({ }^{7}\)

\footnotetext{
7 Another German particle found in concessions is schon (Egg 2013; Zimmermann 2018). Interestingly, while they both mark the first clause, when using zwar the speaker implies that the argument in the second clause outweighs the one in the first, whilst with schon the argument in the schon-clause outweighs the one that follows. An example is given in (i).
(i) A: 'St.Pauli are a good team!'

B: Ja, die sind SCHON'n gute-s Team, aber glück-los.
yes 3PL.NOM be.pres.3Pl sChon indf good-n team but luck-priv
B': Ja, die SIND schon 'n gutes Team, aber glück-los.
yes 3PL.NOM be.pres.3pl SCHON INDF good-n team but luck-priv
'Yes, they ARE a good team alright, but without luck.' German, (Zimmermann 2018, p. 689)
}

According to Zimmermann (2018) the modal particle schon in (i) expresses that the speaker concedes that there are reasons for believing \(\neg p\), i.e., that St.Pauli is not a good team. Nonetheless, by using schon the speaker commits to \(p\) as they believe there there is more evidence for \(p\) than for \(\neg p\). If the
(28) Zwar haben die Bayern nicht besonders gut gespielt, aber zWar have.pres.3PL def.nom.pl B. NEG especially good play.PTCP but sie haben gewonnen. 3PL.NOM have.PRES.3PL win.PTCP
'True, Bayern (Munich) did not play very well, but they did win.' German, (Leuschner and Van den Nest 2012, p. 7)
(29) Der könig sprach: so leugest du aber. er def.nom.m king speak.pst so lie.pres.2SG 2SG.nom but 3SG.m.nom antwort: ich leug nicht. der könig saget: zwar, du answer 1SG.nom lie.pres.1SG neg def.nom.m king say.PST Zwar 2sg.nom leugest.
lie.pres.2SG
'The king said: 'you lie.' He answered: ‘I don't lie.' The king said: 'Yes, you lie.' German, (Leuschner and Van den Nest 2012, p. 4)

Furthermore, (30) shows that a zwar...aber concession can also have two different subjects: dieser Apple-Store in Peking 'this Apple-Store in Beijing' in the first clause and die Mitarbeiter 'the employees' in the second clause.
(30) Diese-r Apple-Store in Peking hat zwar wieder geöffnet, this-nом.m A. in Beijing have.3SG.pSt zwar again open.PTCP die Mitarbeiter schützen sich aber trotzdem weiter mit Mundschutz DEF.3PL employee.pl protect self but however further with mask und Handschuhen.
and glove.pL
'This Apple-Store in Beijing is open again, the employees however still protect themselves with masks and gloves. \({ }^{8}\)

König (1991, p. 194) has argued that there is no reason to add an overt marker of truth to a clause, unless the clause that follows is 'problematic', i.e., disagreeing with the other discourse participant. Thus, initially, the association of zwar with concessives was a conversational implicature (Leuschner and Van den Nest 2012). According to Leuschner and Van den Nest (2012) the conceding function of zwar has become conventionalized over time and the original meaning has become opaque.

\footnotetext{
speaker were to use zwar in (i) instead of schon, they would imply that the argument in second clause, 'St. Pauli is without luck', outweighs 'St. Pauli is a good team' and thus point towards a conclusion like 'St. Pauli will not win a match any time soon'. The B'-utterance in (i) also shows that verum focus is felicitous in that context. The relation between zwar, schon and verum requires more attention, however, this is outside the scope of this thesis.
8 https://www.augsburger-allgemeine.de/digital/Dieser-Apple-Store-in-Peking-hat-zwar-wieder-geoeffnet-die-Mitarbeiter-schuetzen-sichhtml?aid=56793046
}

Certes and zwar do not have a direct translation in English, though note that English sure, can also appear both in full agreement, as in (31) and in concessives, as shown in (32).
(31) I was offered the same thing but they were diamond earrings. I said "Sure! Who doesn't love diamond earrings?"

English, COCA (Davies 2008)
(32) And sure, okay, what the government may do may not be right, but you have to honour what the government says.
English, (Antaki and Wetherell 1999, p. 23)
Since in English sure is still possible with full agreement as in (31), the concessive use in (32) is likely a conversational implicature. (33) shows an intermediate use in which the speaker answers their own rhetorical questions. The first is answered with sure, but the second with hardly.
(33) Tough to get into? Sure! Impossible? Hardly! It's just a language. English, COCA (Davies 2008)

Antaki and Wetherell (1999) call correlatives such as sure...but 'quasi-correlatives', because there is no fixed expression for the word in the first clause; it can be sure, but also okay or yeah. I propose that correlative concessions with gaa and naam both used to be conversational implicatures and that the examples with gaa, like the English examples with sure, still are for some speakers, because gaa still functions as an agreeing particle for those speakers. Since they interpret gaa as a response particle, this explain why the implicature, i.e, the concessive reading, can be cancelled. Where the implicature appears, it is derived as follows: B emphasizes agreeing with one aspect of A's utterance, in order to be more polite when they give the counterargument. For other speakers, however, gaa has already been grammaticalized, like naam is for all speakers.

Since sentences with naam can not be interpreted any other way than concessive, even without the addition of the second clause, the implicature has become conventional. Unlike conversational implicatures, conventional implicatures cannot be cancelled (Potts 2007). This is true for naam, because the agreeing response particle naam does not exist anymore in Wolof. The agreement response particle nagam, which has been borrowed into Wolof as naam, has only retained, on the one hand, it's 'response to name' use, and on the other hand, it's concessive use, both derived from the argeement response particle which has become opaque in Wolof. As far as I could find, nagam is
not a concessive particle in Arabic. The chart in (34) summarizes my findings on the origin of concessive particles cross-linguistically.
(34)

(34) illustrates that agreement particles develop into two related, but distinct, meanings: a concessive meaning and a response to being called. Arabic nagam covers agreement and response to name. Wolof naam only covers the lower two nodes, i.e., the original meaning agreement has been lost, but the two derived meanings concession and response to name have been retained. I propose that naam is therefore polysemous. Wolof gaa covers agreement and concession, as both meanings are synchronically available. German zwar and French certes only cover concession, as they have completely lost their original meaning agreement and never developed the secondary meaning response to name.

Though the origin of concessive particles is clear, a remaining problem with them is that it is not clear what it means to be a concessive marker synchronically. Recall that a concession such as although \(p, q\) has been defined by König (1988), among others, as having an antecedent \(p\) and a consequent \(q\) and that both \(p\) and \(q\) are entailed, when normally 'if \(p\) then \(\neg q\) '. However, according to Grote, Lenke, and Stede (1997) among the linguistic cues that can signal concession in English is the conjunction but. Thus the concessive meaning can also be achieved with just a regular adversative connector like but, as in the English example in (35).
(35) Shaq is huge, but he is agile.
(Bach 1999, p. 327)
In hypotactic concessions, i.e., with only subordinating concessive conjunction, such as although in English or doonte in Wolof, there is no additional adversative conjunction, so the concessive conjunction can have the same meaning as 'concessive but'. In correlative
concession, there is already a conjunction present that can express concession on its own. The other way around, a concessive particle cannot carry the concessive meaning all by itself, as you need the adversative conjunction in all these constructions (Leuschner and Van den Nest 2012) (the only exception being (10) in Section 8.2.2).

While a concessive conjunction such as although can only have a concessive meaning, an adversative conjunction such as but has a more general meaning, allowing it in multiple uses; the concessive being just one of them. Thus, concessive particles can be used to make the adversative conjunction more specific. This is elaborated on in Section 8.6, but first I return to gaa.

\subsection*{8.5 Two groups of gaa-users}

I propose that gaa in concessions for speakers that consider it an agreement particle gives rise to a conversational implicature. Cross-linguistically both agreeing response particles and verum are often used in the first clause of concessions. We have seen in Chapter 4 that concessives were one of the contexts that verum can occur in. Example (19) is repeated here as (36) and an additional English example is given in (37).
(36) A: Is he a good candidate? Does he work hard?

B: (Yes,) he DOES work hard, but his results are miserable... English (Wilder 2013, p. 169)
(37) I can not accept that good enough is good enough for the learners whom I teach. I want my learners to know that sometimes good enough DOES work, but that some information tasks require greater energy.
English, COCA (Davies 2008)
Dutch also has a response particle which occurs both in verum and concessives, namely wel. However, in Dutch the difference between the verum and concessive interpretation is not dialectal, but rather indicated by prosody. Furthermore, unlike gaa, wel is only possible in disagreement verum and never in emphatic agreement; the exact opposite distribution of gaa. Examples are shown in (38).
(38) A: Je hebt je huiswerk niet gemaakt. 2SG have.PREs-2SG 2SG.poss homework neg make.ptcp 'You have't done your homework!'
B: Ik heb mijn huiswerk WEL gemaakt! 1SG have.pres-2SG 1sG.poss homework wel make.ptce
'I HAVE done my homework!'
B': Ik heb mijn huiswerk wel GEMAAKT, maar ik ben 1SG have.PRES-2SG 1SG.pOss homework wel make.PTCP but 1SG be.1SG het vergeten in te lever-en. 3SG.N forget.pTCP in to deliver-INF 'I have done my homework, I just forgot to hand it in.' own judgment

In (38), in the B utterance wel has the Nuclear Pitch Accent and the sentence is positive + disagreement verum, whereas in the concessive B' utterance the participle gemaakt 'made' has focal stress. 9

The agreement verum particle kay can also be used in concession, as was shown in Chapter 4 and repeated here as (39).
(39) A: 'Fatou read a good book.'

B: Waaw, jàng na b-enn téére (kay), wànte téére
yes read clfoc.3sG nc.sG-some book Kay but book
b-i baax-ul (de, \#kay)
NC.SG-DEF.PROX good-NEG.3SG DE KAY
'Yes she read a book, but it was a bad book.'
The reason only agreement verum and agreement response particles are felicitous in the first clause of a concessive construction is because of the politeness principle argued for in König (1991), namely that adding an overt marker of agreement is superfluous unless disagreement is coming up. Like with the surprise use of the disagreement verum particles in Chapter 6, this difference between agreement and disagreement verum gets conflated in English.

Furthermore, the agreement response particle waaw 'yes' can also be used in concessions, as shown in (40).
(40) A: Amina jàng na b-u baax!
A. study clfoc.3SG nc.sG-rel be.good 'Amina studied well.'
B: Waaw, Amina jàng na b-u baax, waaye k-enn yes A. study clfoc.3SG NC.SG-Rel be.good but NC.sG-some gërum-u ko.
praise-Neg.3sG 3 SG.o
'Yes, Amina studied well, but nobody praised her.'

\footnotetext{
9 While according to Zeevat (2000) stressed wel can also be concessive, I do not share this judgment. In a preliminary enquiry through a poll on social media, 45 out of 50 other native speakers have said to find stressed wel infelicitous in a concessive.
}

Kay and waaw in concessions give rise to a conversational implicature. The same can be said for speakers for whom \(g a a\) is a pure agreement particle. For these speakers (2) is also felicitous, but they do not tie the concessive meaning to gaa. Nonetheless, gaa seems different from both waaz 'yes' and kay, as both J. L. Diouf's dictionary and certain speakers claim that the concessive meaning is inherent to the particle. I propose that for them the meaning has become conventionalized. Crucially, for them gaa has lost its original meaning of agreement particle, and has shifted to a concessive particle. Thus, the Wolof speakers I worked with can be divided into two groups:
1. Those for whom gaa and naam are both concessive particles
2. Those for whom gaa is an agreement particle and like all other agreement particles, be it sentence-final particles like kay or response particles like waaw, they can be used in the first clause of a concessive.

In the next section I discuss the different meanings of adversative coordinators in order to analyze the contribution of concessive markers.

\subsection*{8.6 Different flavors of 'but'}

In this section I first show the two uses of but according to Lakoff (1971): Semantic Opposition (SO) and Denial of Expectation (DoE). I follow Sæbø's 2003 analysis that the DoE usage is derived from the SO one. Building off of analyses such as Umbach (2005), I propose to capture the difference between the two uses of the adversative connector using a QUD framework. What is known as DoE occurs when the second question is answered negatively and there is a polar super-question, whereas in SO the second question is answered negatively, but there is no polar super-question. Crucially, concessive particles can only co-occur with the DoE reading of the adversative coordinator.

\subsection*{8.6.1 Semantic Opposition and Denial of Expectation}

Adversative coordinators, like but, can have a vast array of functions. Lakoff (1971) first made the distinction between two uses of but in English: Semantic Opposition and Denial of Expectation. \({ }^{10}\) An example of DoE in English is given in (41).

\footnotetext{
10 Other functions of but have been subsequently identified by Bach (1999), Blakemore (1989), and Jasinskaja and Zeevat (2008), however for my purposes here I focus on these two.
}
(41) John is a Republican, but he's honest. English
(Blakemore 1989, p. 26)

Various authors (Blakemore 1989; Lakoff 1971; Lang 1984; Winter and Rimon 1994) have noted that in (41) there is a certain expectation about John, namely that he is dishonest by virtue of being a Republican. This expectation is denied in the second clause, and the denial is signaled by the adversative coordinator.

Semantic Opposition is defined in Spooren (1989, p. 31) as "a relation between two conjuncts each having different subjects, to which properties are attributed that are mutually exclusive in the given context." An example is given in (42).
(42) Susan is tall, but Mary is short.

English (Blakemore 1989, p. 28)

The crucial difference between (41) and (42) is that in (42), unlike in (41), there is no expectation being denied in the second conjunct. Blakemore (1989) furthermore notices that only this sub-type of adversative coordination can go together with a specific intonation pattern, corresponding to a B-accent on the subject and an A-accent on the predicate (Jackendoff 1972). This distinction between DoE and SO is made overt in Slavic languages, such as Russian (Jasinskaja and Zeevat 2008, 2009) and Macedonian, which have two different lexical items for the two different flavors of 'but'. In Section 8.8 I compare the Slavic languages to languages such as English an Wolof. An example from Macedonian, which uses \(a\) for 'SO-but' and no and ama for 'DoE-but', is given in (43). \({ }^{11}\)
(43) a. Toj e student, a taa e učenička. 3SG.M.EMPH be.Pres.3SG student but.so 3SG.F.EMPH be.Pres.3SG pupil.f 'He is a student, but (/while) she is a pupil.'

Macedonian, SO
b. Toj e student, ama/no ne uči dobro 3SG.M.EMPH be.PRES.3SG student but.DOE NEG study.PRES.3SG well 'He is a student, but (/nevertheless) he does not study well.' \({ }^{12}\) Macedonian, DoE (Kramer and Mitkovska 2011, p. 57)

Kramer and Mitkovska (2011, p. 57) note that "a designates a less sharp contrast than

\footnotetext{
11 The precise usage difference between no and ama awaits a future occasion. Etymologically, no comes from Proto-Indo-European \({ }^{*} n u\) and \(a m a\) from Arabic 'ammā. Generally, words from Slavic (IndoEuropean) origin are considered more formal than loanwords from Arabic and Turkish. Ama also has additional discourse marking properties that no doesn't have (Fielder 2008; Venovska-Antevska 2003).
12 Glosses mine.
}
\(n 0^{\prime \prime}\). Similar claims about the strength of contrast between SO and DoE can be found in the literature before the link with Information Structure was made by Umbach (2001). In Section 8.9 I revisit these theories.

I argue that the difference between the SO and DoE use of adversative coordinators lies at the heart of naam's contribution: concessive particles such as naam, that go together with an adversative conjunction, signal the Denial of Expectation use of the conjunction. First, I show that waaye has the same two uses as but. As an example of Denial of Expectation with only waaye and no concessive particle, consider again (15), repeated here as (44):
(44) Rafet na wànte dëgër-ul
be.pretty 3SG.cLFOC but hard-NEG.3SG
'It is pretty, but not firm.'
(Faye 2012, p. 56)
In (44) there is an expectation that the item has positive qualities, as it is pretty, which is denied by the second clause. An example of Semantic Opposition with waaye as a connector is given in (45):
(45) Awa màdd la jënd, waaye Astu ditax la jënd.
A. màdd CFOC.3SG buy but A. ditax CFOC.3SG buy
'Awa bought màdd, but Astu bought ditax.' \({ }^{13}\)
elicited

Potts (2003), following Bach (1999) proposes that but in the construction 'A is X, but \(\mathrm{Y}^{\prime}\) is multidimensional and has two entailments, the primary one being a generalized conjunction meaning and the ancillary entailment being a generic quantification glossed as "for the most part, having the property denoted by Y precludes having the property denoted by \(X^{\prime \prime}\) (Potts 2003, p. 41). This is exemplified in (46).
(46) a. Shaq is huge, but he is agile.
b. primary entailment: huge(shaq) \(\wedge\) agile(shaq)
c. ancillary entailment: \(\mathrm{G}_{\mathrm{x}}[\operatorname{huge}(\mathrm{x}) \rightarrow \neg \operatorname{agile}(\mathrm{x})] \quad\) (Potts 2003, p. 211)
(46) has both a primary entailment of 'Shaq is huge and he is agile' and an ancillary entailment of 'huge people are not agile'. Potts (2003) notes that there are many meanings but can contribute, including Semantic Opposition, but he does go into detail on what the ancillary entailment for SO would be. Following Sæbø (2003), Umbach

\footnotetext{
13 Màdd (Latin name: saba senegalensis) and ditax (Latin name: detarium senegalense) are fruits that are native to Senegal.
}
(2005) Karagjosova (2008) and Jasinskaja and Zeevat (2009), I will show how both of these uses of adversative connectors can be captured under one meaning, the difference lying in the QUDs the two conjuncts answer to.

\subsection*{8.6.2 Deriving DoE from SO}

Sæbø (2003) considers Semantic Opposition the core meaning from which Denial of Expectation is derived. He distills the distinction between the two uses down to a difference in what the topic of the sentence is. Sæbø, using a dynamic semantics framework, bases his analysis on examples of German aber 'but', but it can be extended to other adversative coordinators cross-linguistically which behave in the same way, such as English but and, as far as I can tell, Wolof waaye. In a sentence ' \(\phi\) aber', the sentence \(\phi\) is asserted and a presupposition is introduced that requires that the context \(\sigma\) entails the negation of the result of replacing the topic \(\mathcal{T}\) of ' \(\phi\) aber' with an alternative \(\alpha\), as in (47).
(47) \(\quad \sigma \llbracket \phi\) aber \(\rrbracket \tau\) iff \(\sigma \models \neg \phi[\mathcal{T}(\phi) / \alpha]\) for some alternative \(\alpha\) and \(\sigma \llbracket \phi \rrbracket \tau\)
(47) says that an information state, or context, can be updated from \(\sigma\) to \(\tau\) with an 'aber'-sentence ' \(\phi\) aber' if and only if the negation of \(\phi\) is entailed from the context \(\sigma\) if the topic \(\mathcal{T}\) in ' \(\phi\) aber' is replaced with an alternative, and \(\phi\) is independently asserted. The prototypical case of this is the one in which the topic is an actual contrastive topic, i.e., the Semantic Opposition case. Sæbø (2003) thus also proposes the following definition for Semantic Opposition:
(48) Semantic Opposition: The context entails the negation of the result of replacing the topic of the sentence by an alternative.
(Sæbø 2003, p. 262)
An example of how to derive a sentence with SO, such as (49), using (47), is given in (50).

'For small companies, the harm is yet limited; for intermediate-size companies, however, it is becoming ruinous. \({ }^{14}\) German, (Sæbø 2003, p. 261)

In (49) \(\phi\) is the second clause 'for intermediate-size companies it is becoming ruinous', the topic \(\mathcal{T}\) is the contrastive topic mittlere 'intermediate-sized' and the alternative \(\alpha\) is kleine 'small'. (50) shows that replacing the topic for the alternative leads to the sentence 'The harm for small companies is becoming ruinous', the negation of which is indeed entailed by the context \(\sigma\).
(50) a. \(\quad \sigma \models \neg(\phi)[\mathcal{T} / \alpha]\) iff
b. \(\quad \sigma \models \neg\) (For intermediate-size companies, it is becoming ruinous)[intermediatesized/small] iff
c. \(\quad \sigma \models \neg\) (For small companies, it is becoming ruinous)
(based on Karagjosova (2008, p. 291))
Since not not all sentences contain contrastive topics, Sæbø (2003) proposes that in those cases \(\mathcal{T}\) is an implicit topic. For illustration, consider the Denial of Expectation case in (51).
(51) The forest paths are steep but short.

In (51), the topic \(\mathcal{T}\) is the complement of short, namely long. This is the implicit topic. I leave the details of the exact implementation out, but the main point is that what are considered alternatives - in (51) long and steep - is context-dependent in Sæbø's analysis. This is based on Lang's (1984) notion of a Common Integrator: if two clauses are conjoined, there must be a relevant parallel between them, per Grice's (1975) Maxim of Relevance. One reason for treating them as alternatives is that they both point towards the same conclusion, in this case that conclusion would be that the paths are strenuous'.

Some issues with this analysis are that first of all, Sæbø (2003) uses the term 'topic' in a sense that does not always correspond to what is considered a 'topic' in discourse, as was shown by (51), where the 'topic' was 'long', the alternative of 'short', and not what the sentence was about, 'the forest paths'. Consequently, it is also not always clear what the implicit topic exactly is, or how it can be reconstructed. These problems have been noticed by Karagjosova (2008), who argues that they both stem from the fact that Sæbø (2003) does not consider QUDs in his reconstruction of the topic \(\mathcal{T}\). Furthermore,

\footnotetext{
14 Glosses mine.
}

Umbach (2005) argues that the Common Integrator does not suffice to explain the DoE cases, as this requirement holds for coordination across the board, not just coordination with 'but'. In the next section I propose to capture this notion of relevant parallel as answering a sub-question of the same super-question, building off Umbach (2005).

\subsection*{8.6.3 SO and DoE in d-trees}

According to Umbach (2001, 2005) 'but'-sentences respond to a so-called quaestio. The term was coined by von Stutterheim and Klein (1989) and means 'implicit question', i.e., a QUD that has not been made explicit in the discourse. Implicit questions can come into play when there is no explicit question in the discourse whatsoever, or when the answerer has chosen to answer another question instead of the actual question posed by the asker. This can be done if the answerer thinks that this will yield a more informative answer and as long as the asker can reconstruct the QUD that the answerer is addressing. The way Umbach (2001) uses this term, however, is more specific: it always refers to a pair of QUDs, usually two sub-questions. In (52) the two conjuncts of B's utterance can be connected by either and or but, and according to Umbach (2005), this depends on B's choice of the quaestio.
(52) A: What did the children do today?

B: The small children \({ }_{C T}\) stayed at HOME \(_{\mathrm{F}}\) and/but the bigger ones \({ }_{\mathrm{CT}}\) went to the \(\mathrm{ZOO}_{\mathrm{F}}\).

English, (Umbach 2005, p. 1)
The two possible quaestios for (52) are given in (53).
(53) a. Quaestio for and: What did the small children do and what did the bigger ones do?
b. Quaestio for but: What did the small children do and did the bigger ones do the same?

The quaestio in (53-a) consists of two constituent questions, therefore, the answers to these questions are connected with and. The quaestio in (53-b) consists of a constituent question and a polar question. The second question is answered negatively and the answers are therefore connected with but.

Umbach (2005) furthermore proposes a Denial Condition: but requires that the second part of the implicit question, 'Did the bigger children stay at home?' in (53), is denied.

In order to relate the notion of queastio to the d-trees framework (Büring 2003), I propose that the choice between and and but helps structure levels in the discourse tree.

The use of and structures the d-tree as in (54); with a constituent super-question and two equal constituent sub-questions. Explicit questions in the d-trees are underlined, whereas implicit ones are not.


The use of but, on the other hand, structures the d-tree for (52) as in (55). While an answer with and splits the super-question into two sub-questions, an answer with but further divides the sub-questions into a sub-question and a subsub-question.
(55)


In other words, the answer with but goes one level deeper in the d-tree than the answer with and, in which case the second conjunct answers to a polar subsub-question.

Thus, in answers with CTs, the choice between and and but in English depends on i) whether the second clause answers to a polar question and ii) this answer is negative. If both are the case, then the conjunction but is used. Jasinskaja (2012) and Jasinskaja and Zeevat \((2008,2009)\) continue the line of Umbach (2005) and describe another type of question that can be answered with but. According to Jasinskaja and Zeevat (2009) but is used in so-called 'Who whether'-questions. I refer to the answers of these questions as 'whether-CT' constructions. An example is given in (56). \({ }^{15}\)

\footnotetext{
15 A third main type of adversative coordinator that Jasinskaja and Zeevat (2008) consider and that I don't mention here is 'argumentative but'. This function is illustrated with (i), which answers the QUD 'Should we buy the ring?' and the first conjunct goes in the direction of answering that question with 'yes' and the second with 'no'.
(i) The ring is beautiful, but it is expensive. That's why we shouldn't buy it.

According to Hamine Wane (p.c.) this use is also found in Wolof with naam, as shown in (ii).
(ii) A: 'What do you think of this wrapper?'
}
(56) a. Who "whether" likes football?
(meta-English)
B: John likes football, but Bill doesn't like football.
English (Jasinskaja and Zeevat 2008, p. 69)

The d-tree of (56) is given in (57).


Thus, what unites the whether-CT constructions from Jasinskaja and Zeevat (2008) with a construction like in (55) is that in both constructions the second clause is a negative answer to a subsub-question which is a polar question. In (57) the sub-question 'Who likes football' is divided in two subsub-questions which are then answered with 'yes' and 'no' respectively. In (55), the first question is a sub-question and the second a subsub-question. I will use the term 'whether-CT' to refer to both types of constructions, as they are both constructions which contain a CT and in which the super-question is a constituent question and there is at least one polar sub-question.

Answers such as (54) I will dub 'list-CTs', as they answer list questions that can consist of more than 2 clauses. The constructions answer to (at least) two constituent sub-questions and no polar subsub-questions.

Thus, the whether-CT constructions license the Semantic Opposition use of but, and list-CT constructions license and. I turn now to the Denial of Expectation cases. Applying the analysis proposed in Umbach (2005) to (46-c) from Bach (1999), we get a quaestio as in ( \(58-\mathrm{a}\) ) and the corresponding answer in (58-b) (with the implicit confirmation and denial between brackets).
(58) a. Quaestio: Is Shaq huge? And is he also unagile?
b. Answer: (yes,) Shaq is huge, but (no, he is not unagile,) he is agile.

B: Sër boobu rafet na naam, waaye seer na. Moo wrapper NC.SG.DEM be.pretty CLFOC.3SG NAAM but be.expensive CLFOC.3SG 3FOC.3SG tax mën-u-ma ko jënd. cause be.able-NEG-1SG 3SG.o buy 'That wrapper is pretty, but it is expensive. Therefore I cannot buy it.' (H. Wane p.c.)

In (58) the second question of the quaestio, which has to be answered negatively per the Denial Condition, introduces 'unagile'. Sæbø's notion of implicit topic thus corresponds to the predicate in the second clause of Umbach's quaestio. The d-tree of (58) is shown in (59).
(59) Does Shaq have all the properties of a clumsy person?
Is Shaq huge? Is Shaq unagile?
(Yes,) Shaq is huge. (No,) Shaq is agile.

For (59), I propose that the super-question is a polar question 'Does Shaq have all the properties of a clumsy person?'. This way, answering 'yes' to a sub-question points to a 'yes'-answer to the super-question, whereas answering the sub-question with 'no' answers - not just points to an answer to - the super-question with 'no'. When a question is answered through partial answers, it is always the last partial answer that completes the answer to the question, hence the 'no'-answer has to be the last partial answer. This creates the effect first observed by Anscombre and Ducrot (1977) that the answer in the second clause outweighs the answer in the first clause. In other words: if the super-question is such that it can be answered by one of the sub-questions, it has to be the answered by the last sub-question. If the super-question is a constituent question, such as 'What did the children do?' in (55), then the order does not matter, as no partial answer can fully answer the question anyway: this is exactly what you get with the Semantic Opposition cases.

\subsection*{8.7 The role of concessive particles in d-trees}

What unites the Semantic Opposition and the Denial of Expectation cases, is that in both of them the but-conjunct is a negative answer to the second part of the quaestio. Thus, the only requirement needed for licensing but is that the strategy is such that the second conjunct answers a polar question negatively. This is what Umbach (2005) calls the Denial Condition. Both the SO and the DoE cases fulfill this requirement. Besides the Denial Condition, to get a Denial of Expectation reading, we need one additional condition, namely that the answer to the second sub-question also answers the super-question. Putting these two conditions together we get the following informal definition of Denial of Expectation:
(60) Denial of Expectation: two partial answers to a super-question conjoined by an adversative coordinator, \(C_{1}\) but \(C_{2}\), in which \(C_{1}\) is a positive answer to the partial question, while \(C_{2}\) is a negative answer to the partial answer and does completely answer the super-question.

Thus, in a concession the super-question has to be phrased in such a way that one partial 'no' answer is enough to answer the super-question. Furthermore, concessive particles, such as naam can only occur in DoE cases, as stated in (61).
(61) Concessive particles can only occur with the Denial of Expectation use of the adversative coordinator.

In (58-a) the super-question was phrased as 'Does Shaq have all the properties of a clumsy person'. Now, turning to the Wolof examples from Section 8.2, consider again (8), repeated here as (62).
(62) Dafa gàtt naam, waaye dafa gaaw. VFOC.3SG be.short NAAM but VFOC.3SG be.fast 'S/he is short, but s/he is fast.' elicited

The d-tree for (62) is given in (63).
(63) Does (s)he have all the properties of someone who cannot move far?

(S)he is short naam. (S)he is FAST.

In (63) the super-question is the polar question 'Does she have all the properties of someone who cannot move far?'. The first sub-question is answered with 'yes', while the second is answered with 'no'. Hence, the complete answer to the super-question is 'no'. Similarly, for an example with gaa, such as (2), repeated here as (64), we can phrase the super-question as 'Is Fatou completely good-looking?'. The first clause 'Fatou looks good' suggests that the super-question will be answered with 'yes'. The second clause, however, answers the super-question with 'no', as in order to be completely good-looking, there cannot be one element which is not good-looking. \({ }^{16}\)

\footnotetext{
16 When I refer to naam in the running text when talking about concessive particles, this includes gaa for the speakers that interpret gaa as a concessive particle.
}
(64) A: 'Fatou looks good today.'

B: Fatou rafet na gaa, waaye misoor-am
F. be.pretty ClFOc.3SG GAA but headwrap-3SG.POss
rafet-ul.
be.pretty-NEG.3SG 'Sure, Fatou looks good, but her headwrap is not pretty.'

In a way the concessive particles are still agreement particles, but a very restricted type: one which can only be used in answer to a first sub-question when the speaker knows that the second sub-question will answer the super-question with 'no'. Recall that naam always appear at the edge of the first clause: either clause-initially, or clause-finally. Naam takes scope over the first coordinate, and naam...waaye is a complex coordinator. It has the same semantics as waaye. Waaye, as we have seen in Section 8.6, has the same semantics as German aber and English but. What naam adds to waaye, however, is that it has an additional role in shaping the d-tree. Naam structures the d-tree such that i) the answer to the second sub-question is the opposite polarity of the question. and ii) the answer to the second sub-question is the answer to the super-question.

Since the second clause answers the super-question on its own, the order of the questions cannot be reversed. This begs the question why the speaker would then bother to answer the first sub-question to begin with. According to König (1985) this is rooted in politeness. Generally in concessions, as in (64), the first clause is already given in the discourse, meaning that the addressee has reasons to believe that the super-question will be answered with 'yes'. The speaker wants to answer the superquestion with 'no', while at the same time avoiding confrontation with the addressee by emphasizing the proposition they are both committed to.

Thus, using QUDs we can derive the SO and DoE uses of adversative coordinators like but and waaye. What SO and DoE have in common is that in both cases the second conjunct is a negative answer to a polar question. Where they differ is in the shape of the d-tree: DoE requires a polar super-question, as the second sub-question is the complete answer to to the super-question. In other words, a constituent super-question prohibits the DoE reading of the adversative coordinator. Constituent super-questions, when the Denial Condition is met, only allow the SO reading of but, or when the Denial Condition is not met, license and instead of but.

\subsection*{8.8 Comparison to Slavic}

We have seen in Section 8.6 that Macedonian has at least three adversative connectors: \(a\), that corresponds to SO but and no or ama, that correspond to DoE but. The same distinction is made by Russian, another Slavic language. In this section I compare languages like Wolof and English, which have an adversative conjunction that is unspecified for DoE and SO, with languages like Macedonian and Russian, which have more specified conjunctions. \({ }^{17}\)

\subsection*{8.8.1 The role of topic change in Slavic}

While in English list-CT constructions license and and whether-CT constructions license \(b u t\), according to Jasinskaja and Zeevat (2008) the Russian connector \(a\) is not sensitive to the difference between list-CT constructions and whether-CT constructions. Rather, \(a\) is always used in constructions with contrastive topics, regardless of whether the Denial Condition is met. Therefore, Jasinskaja and Zeevat (2008) propose that \(a\) signals a topic change. Furthermore, Russian has an additive conjunction \(i\), which corresponds to and in cases with no topic change, as illustrated in (65).
(65) Vera prinimala vannu i razgovarivala po telefonu. V. was.taking bath and was.talking over phone 'Vera was taking a bath and talking on the phone.' Russian, (Jasinskaja and Zeevat 2008, p. 7)

In constructions such as (65) in Wolof the sentence conjunction te (or \(t a\) ) 'and' is used, as illustrated in (66).
(66) Rafet na te dëgër na.
be.pretty clfoc.3sG sconj be.firm CLFOC.3SG
'It is pretty and firm.'
(Faye 2012, p. 55)
Compare (66) to the minimal variant (15), repeated here as (67), in which wànte is used instead of \(t e\).
(67) Rafet na wànte dëgër-ul be.pretty clfoc.3sG but firm-NEG.3SG 'It is pretty, but not firm.'
(Faye 2012, p. 56)

\footnotetext{
17 I use 'Slavic' in the running text as a short-hand for 'Russian and Macedonian', though is very likely that most Slavic languages have this distinction between a DoE and SO conjunction.
}

Thus, the choice of adversative conjunction cross-linguistically can depend on two factors: i) whether the polarity of the second conjunct is the same or different from the polarity of the QUD that conjunct answers to and ii) whether both QUDs have the same topic. \({ }^{18}\)

Compare naam to the the particle de in (68), which is felicitous with a CT, regardless of whether the second sub-question is answered negatively, as in (68-a) or not, as in (68-b). The use of de after topics is elaborated on in Chapter 9.
```

a. Moussa de dina dem xew-xew b-i, waaye Fatou
M. DE FUT.3SG go event NC.SG-DEF.PROx but F.
du dem.
3SG.FUT.NEG go
'Moussa}\mp@subsup{}{CT}{}\mathrm{ will go to the party, but Fatou}\mp@subsup{}{CT}{}\mathrm{ will not.' whether-CT
b. Moussa de a-y yeere la jënd, Hamine, yàpp la
M. DE INDF-NC.PL clothing 3SG.CFOC buy H. meat 3SG.CFOC
jënd
buy
'Moussa

```

Thus the particle \(d e\), like the Slavic connector \(a\), signals 'topic change' and is not sensitive to the polarity of the answer in the second conjunct. I will show below that naam, on the other hand, is not sensitive to topic change, but only to the form of the super-question and whether the second conjunct is a negative answer to it.

The differences between the adversative coordinators in English, German, French, Slavic and Wolof is summarized in Table 8.1. \({ }^{19}\) In the first row 'same top' refers to no topic change having taken place and 'same pol' refers to the polarity of the second sub-question being equal to the answer. Conversely, 'pol change' indicates that the polarity of the answer is the opposite from the questions, i.e., the Denial Condition (Umbach 2005).

In Wolof the clausal conjunction te can be used to conjoin two CT clauses, however, in my data often no conjunction was used at all when eliciting such sentences, hence it is between brackets in Table 8.1. In general, the conjunction te is not necessary in Wolof to conjoin two clauses (Robert 2010a). Waaye 'but', however, was used when eliciting whether-CT sentences. From Table 8.1 we see that Wolof patterns like English and German. These languages use the same word in all cases in which the polarity

\footnotetext{
18 A topic change in this case corresponds to a CT in the answer, I do not use 'topic' in Sæbø's sense here.
19 The French examples are discussed in the next section.
}
\begin{tabular}{|c|c|c|c|c|}
\hline & same top & top change, same pol & top \& pol change & same top, pol change \\
\hline English & \multicolumn{2}{|c|}{and} & \multicolumn{2}{|r|}{but} \\
\hline German & \multicolumn{2}{|c|}{und} & \multicolumn{2}{|r|}{\[
\begin{gathered}
\hline \text { (zwar }+ \text { ) } \\
\text { aber }
\end{gathered}
\]} \\
\hline French & et & alors que & \multicolumn{2}{|r|}{\[
\begin{gathered}
\text { (certes+) } \\
\text { mais }
\end{gathered}
\]} \\
\hline Wolof & \(\left.\right|_{(t e)}\) (de & ) (de+ & \multicolumn{2}{|l|}{} \\
\hline Slavic & \(i\) & \(a\) & & no \\
\hline
\end{tabular}

Table 8.1: The 'and'-'but' continuum in English, Wolof, German and Slavic.
of the second sub-question is equal to the answer, and a different one for the cases in which the polarity is the opposite, thus the whether-CT and concessions cases. Slavic languages use the same word when a topic change has taken place and a different word when no topic change has taken place. Thus the only factor relevant for the choice of the conjunction for Slavic languages is topic change, whereas the only factor relevant for the other languages in the table is polarity change.

\subsection*{8.8.2 DoE with topic change}

The topic change condition in Slavic languages can be overridden when there is DoE. That is to say, there are cases which structurally look like Semantic Opposition, i.e., they contain a topic change, but are nonetheless Denial of Expectation. In these cases, \(a\) is not licensed in Slavic. \({ }^{20}\) Thus, while normally \(a\) signals topic change, no can be used even when there is a topic change, as long as there is a DoE. Jasinskaja and Zeevat (2008) give the example in (69), about which they say that no can be used if the question were to be 'Should we take Oleg and Roma to a football match?', in which case 'Roma doesn't like football' is enough to answer the question with 'no'.
(69) A: 'Should we talke Oleg and Roma to a football match?'

B: Oleg ljubit futbol no Roma ne ljubit.
O. likes football but.doe R. NEG likes

\footnotetext{
20 According to Crevels (2000), replacing but for although is a test for differentiating whether you are dealing with SO or DoE. While in principle you can even replace but with although in SO cases, such as (i), in that case you have reinterpreted the SO as a DoE and no longer get the SO reading.
}
(i) ?Although John is tall, Bill is short.
'Oleg likes football, but Roma doesn't.' Russian (Jasinskaja and Zeevat 2008, p. 16)

When the question is 'Do Oleg and Roma like football?', however, no is not appropriate and only \(a\) can be used, as in (70).
(70) A: ‘Do Oleg and Roma like football?'

B: Oleg ljubit futbol a Roma ne ljubit.
O. likes football but.so R. NEG likes
'Oleg likes football, but Roma doesn't.' Russian
(Jasinskaja and Zeevat 2008, p. 16)
The Macedonian examples in (71) and (72) show that when the question is made explicit to meet the conditions for DoE, as in (72), no and ama are used despite there being a topic change in the answers. In fact, in those cases the use of no or ama over \(a\) is obligatory.
(71) a. Koj ḱe dojde, a koj ne ḱe dojde na who.sG fut come.PRS.3sG but.so who.sG NEG FUT come on zabava-ta?
party-def.3SG.F
'Who will and who will not come to the party?'
b. Mare ḱe dojde, a/ \#no Stojna n:ema da
M. FUt come.PRS.3SG but.so but.DOE S. NEG:have.PRS.3SG SBJV
dojde.
come.Prs.3sG
'Mary will come, but Stojna will not come.'
Macedonian, whether-CT, own judgment
(72) a. Dali i Mare i Stojna ḱe dojdat na zabava-ta?

Q add M. add S. FUT come.PRS.3SG on party-DEF.3SG.F
'Will both Mary and Stojna come to the party?'
b. Mare ke dojde, no/ \#a Stojna n:ema da
M. Fut come.prs.3SG but.Doe but.so S. neg:have.PRs.3SG SBJV
dojde.
come.prs.3sG
'Mary will come, but Stojna will not come.'
Macedonian, polar-CT, own judgment
In (71) the answer to the second sub-question is negative, yet \(a\) is used, because as we have seen Slavic languages are not sensitive to this factor in their choice of conjunction,
but only in whether the two conjuncts have the same topic or not. Hence in (71) the SO'but' is used. In (72), however, in addition to being negative, the second sub-question answers the super-question. Thus, even in Slavic, when the negative answer is the answer to the super question, no wins over \(a\) even though there is a topic change. Therefore, the only relevant condition for no is whether the super-question is a polar question and the second question is answered negatively, regardless of whether there is a topic change in the second sub-answer.

The same goes for concessive particles: concessive particles can occur with topic change provided the two conditions are met. Naam is sensitive to the structure of the discourse tree, not just to the presence of the adversative connector. Naam is infelicitous with partial topics in answers to a constituent question with a plural subject, as in (73), but it is felicitous with partial topics in answers to a polar question with a plural subject, as in (74).
(73) A: L-an la k-enn k-u nekk jënd? nc-Q cfoc.3sG nc.sG-one nc.sG-rel exist buy 'What did everybody buy?'21
B: *Moussa, piis la jënd naam, te Fatou, a-y màngo M. fabric CFOc.3SG buy naAM and F. INDF-NC.PL mango la jënd. CFOC.3SG buy
Intended: 'Moussa bought fabric and Fatou bought mangoes.' list-CT, elicited
B': *Awa màngo la jënd naam, Daba ditax la jënd, waaye
A. mango cfoc. 3 sg buy nam D . ditax cfoc. 3 sg buy but

Yaasin bisaap la jënd.
Y. bissap cFoc.3sG buy

Intended: 'Awa bought mango, Daba bought ditax, but Yacine bought bissap.'
whether-CT, elicited
In (73) the overt question is 'What did everybody buy'. Crucially, this answer cannot be resolved by any individual partial answer, hence the unavailability of naam in (73). (73) shows that while waaye can be licensed in an answer to 'What did everybody buy', per the same principle as ( 55 ), naam is still unavailable, because the super-quesion remains

\footnotetext{
21 In English, there are two often used questions for eliciting CTs: multiple wh-questions, for example 'Who bought what?', and single wh-questions with plurals, e.g., 'What did you guys buy?'. Only the latter strategy is possible in Wolof, as multiple constituent questions can only be interpreted as echo questions. I mostly used questions with kenn ku nekk 'everybody' (lit: 'someone who exists').
}
a constituent question. Now, compare this to the question 'Will Mamadou and Awa both go to the party?' in (74).
(74) A: Ndax Mamadou ak Awa ñoom ñ-ëpp dina-ñu dem ci

Q M. NCONJ A. 3PL.EMPH NC.PL-all FUT-3PL go Loc
xew-xew b-i?
event nc.sG-def.prox
'Will Mamadou and Awa both go to the party?'
B: Mamadou, dina dem naam, waaye Awa, du dem. M. Fut.3SG go namm but A. neg.3sg go 'Mamadou will go, but Awa will not go.' polar-CT, elicited

The question in (74) is fully resolved by the partial answer 'Awa will not go'. The other partial answer 'Mamadou will go' provides additional information, but is logically superfluous. To differentiate between (73) and the list-CT constructions in (74), I refer the constructions in (74) as polar-CTs, since the super-question is a polar question.
(75) shows that in a context like (72-b) and (74), the particles naam and de can even be combined. In this case de signals topic change and naam signals DoE.
(75) A: ‘Will Mamadou and Awa both go to the party?'

B: Mamadou de, dina dem naam, waaye Awa, du dem.
M. de fut.3SG go nadm but A. neg.3Sg go
'Mamadou will go, but Awa will not go.' polar-CT, elicited
The d-tree for (74), a concession with CTs is presented in (76).
(76)

Will Mamadou and Awa both go to the party?
Will Mamadou go to the party? Will Awa go to the party?
Mamadou will go naam. Awa will NOT go.
The same pattern that we see in Wolof holds for French, another language with a concessive particle. This is shown in (77), (78) and (79-a) (from Muriel Assmann p.c.).
(77) A: Qui aime quoi?
who love.3SG.PRES what
'Who loves what?'

B: Jean aime le basket, (*certes,) alors que Bill, il
J. love.3SG.pres def.m basketball certes whereas B. 3SG.m aime le foot.
love.3sg.pres DEF.m football 'Jean loves basketball,
(78) A: Qui aime le basket?
who love.3SG.pres def.m basketball
'Who loves basketball?'
B: Jean aime le basket, (\#certes,) mais pas Bill.
J. love.3sg.pres def.m basketball certes but neg B.
'Jean loves basketball, but Bill doesn't.' French, whether-CT
(79) a. Est-ce que tout le monde aime le basket?

Q all def.m people love.3SG.pres def.m basketball
'Does everybody love basketball?'
B: Jean aime le basket, (certes,) mais pas Bill.
J. love.3SG.pres def.m basketball certes but neg B.
'Jean loves basketball, but Bill doesn't.' French, polar-CT
While the QUD in (78) licenses the adversative connector mais, it doesn't license the concessive particle certes. Certes is only licensed in (79), where the QUD is a polar question. Summarizing, there are three different relevant constructions with contrastive topics:
1. list-CTs: no polar sub-questions, answers reversible
2. whether-CTs: at least one polar sub-question, answers reversible
3. polar-CTs: only polar sub-questions, non-reversible

Table 8.2 summarizes the conjunctions and particles used for the different constructions with CTs in the languages under discussion.
\begin{tabular}{|l|l|l|l|l|l|}
\hline & English & German & French & Slavic & Wolof \\
\hline list-CTs & and & und & alors que & \(a\) & (te) \\
\hline whether-CTs & but & aber & mais & \(a\) & waaye \\
\hline polar-CTs & but & (zwar...)aber & (certes...) mais & no & (naam...)waaye \\
\hline
\end{tabular}

Table 8.2: Different types of CTs and their connectors cross-linguistically.

In Slavic, list-CTs and whether-CTs pattern together: both license the conjunction \(a\). Polar-CTs, on the other hand, license the connector no. In English, whether-CTs pattern
like polar-CTs: both license but. Now, in languages like German, French and Wolof there is the option to mark all three constructions differently: list-CT constructions license a coordinating conjunction, whether-CTs license an adversative conjunction with no further particle, and polar-CT constructions additionally license a concessive particle. Crucially, while whether-CT constructions and polar-CT constructions both license an adversative conjunction in these languages, only the former licenses an additional concessive particle.

\subsection*{8.9 Non-Information Structure based approaches to but}

In this section I compare the Information Structure-based approaches to 'but' to approaches that do not rely on Information Structure and derive the meaning of 'but' from its DoE usage. I show that this does not suffice to capture the SO uses. These analyses include Lang (1984), Gärdenfors (1992) and Winter and Rimon (1994). What these approaches have in common is that they argue that the core meaning of but is Denial of Expectation. Based on their semantics for DoE, they all propose explanations for SO, however, these explanations are rather ad hoc. In Winter and Rimon (1994) there is an implicit proposition \(r\) such that \(p\) defeasibly implies \(\neg r\) and \(q\) implies \(r\), or in some cases, is equal to \(r\). They draw on Anscombre and Ducrot (1977), who say that \(p\) mais \(q\) is possible when \(p\) is an argument in favour of an additional proposition \(r\) and \(q\) is an argument in favour of \(\neg r\). Winter and Rimon (1994) generalize Anscombre and Ducrot's observation in the form of the two conditions in (8o-a) and (8o-b).
(80) a. C1: \(p\) defeasibly implies \(\neg r\) and \(q\) implies \(r\) (restricted version: \(q=r\) ) (Winter and Rimon 1994, p. 5)
b. C2: \(q\) 's implication of \(r\) is "stronger" than / "cancels" \(q\) 's implication of \(\neg r\) (Winter and Rimon 1994, p. 8)

Thus, besides asserting ' \(p\) and \(q^{\prime}\), ' \(p\) but \(q\) ' introduces a presupposition that there is an addition proposition \(r\), such that \(p\) implies \(\neg r\) and \(q\) implies \(r\) and the latter cancels the former. What \(r\) exactly is is left for the hearer to accommodate. As for Semantic Opposition, Winter and Rimon (1994) claim that the context can always accommodate the expectation that the same predicate should hold for every entity under discussion. In the case of an example such as (81), \(r=\) 'not all the players in the team are quick' and the expectation that is challenged is 'All the players in the team are quick'.
(81) John is slow, but Bill is quick.
(Winter and Rimon 1994, p. 7)
\(q\) 'John is slow' implies \(r\) and \(p\) 'Bill is quick' implies \(\neg r\). Winter and Rimon claim that 'but' is not ambiguous between DoE and SO. It has one general meaning, as long as the appropriate \(r\) can be reconstructed. According to Gärdenfors (1992, p. 7), in an example such as (81) John being slow creates a 'weak expectation' that Bill should also be slow. Similarly, Lang (1984) claims that in a relation \(S_{1}\) but \(S_{2}\), what but indicates is that the continuation \(S_{2}\) is not the most likely proposition that can be deduced from \(\mathrm{S}_{1}\). This requires that in a Semantic Opposition context, it is considered more likely for a predicate to hold of the subject of \(S_{2}\), if that predicate also holds for \(S_{1}\). Thus, both accounts have to stipulate some kind of expectation about the entities under discussion, but none of them show how the Semantic Opposition use can be systemically derived from the Denial of Expectation use. They can not account for what drives the choice between and and but in (81), other than an ad hoc expectation. Umbach (2005), however, illustrates with the example in (82) that this 'expectation' is in fact a QUD.
(82) a. (What happened?)

Jeffrey is dead, Katherine is seriously injured, and Almasy is unhurt.
b. (Did Jeffrey succeed in killing them all?)

Jeffrey is dead, but Almasy is unhurt and Katherine is alive, too.
c. (Have all of the participants been affected by the accident?)

Jeffrey is dead and Katherine is seriously injured, but Almasy is unhurt.
d. (Do any of the participants need a doctor?)

Jeffrey is dead and Almasy is unhurt, but Katherine is seriously injured. (Umbach 2005, p. 6)

In (82) the situation is always the same: Jeffrey deliberately crashed a plane with him, Katherine and Almasy in it (a scene from The English Patient (Ondaatje 1992)). Thus, the speaker's expectations about the situation are also always the same. The difference is that each variant of (82) answers a different QUD, given between brackets. In order to apply an account such as Winter and Rimon's to (82-c), for example, one needs to accommodate the expectation that if someone, in this case Jeffrey, succeeds in killing themself, they succeed in killing others, too, which according to Umbach (2005) is too ad hoc. Thus, from the perspective of Information Structure-based approaches, such as Umbach (2005), Jasinskaja and Zeevat (2008) and the proposal laid out in the previous section, the expectation observed by Winter and Rimon (1994), Gärdenfors (1992) and Lang (1984) that comes into play in SO cases can be framed in terms of domain-restriction by the super-question the speaker answers to. Since the super-
question restricts the domain of the sub-questions, all of the sub-questions point in the same direction. There is no need to posit an additional proposition \(r\) to explain the observed contrast.

\subsection*{8.10 Summary}

I have shown that both gaa and naam originate from agreement response particles, but that they are in different stages of grammaticalization. While gaa still has both the emphatic agreement use and the concessive use synchronically, naam does not have the emphatic agreement use anymore. However, naam has retained another use from its source, the Arabic agreement particle nagam, namely the 'response to name' use. Thus, naam is polysemous and has two related, but different meanings: a concessive particle and a response-to-name particle.

Furthermore, I have shown that the licensing of the concessive particles depends on the Denial of Expectation reading of the adversative coordinator. Following Umbach (2005), I have shown that the use of different coordinators, such as 'and' and 'but', can indicate the type of question their conjuncts give answers to. I have proposed that this approach can be extended to account for concessive particles. Concessive particles can only occur with the Denial of Expectation use of the adversative coordinator. I have argued that there are two conditions that need to hold the Denial of Expectation use of adversative coordinators, as in (83).
(83) Denial of Expectation: two partial answers to a super-question conjoined by an adversative coordinator, \(C_{1}\) but \(C_{2}\), in which \(C_{1}\) is a positive answer to the partial question, while \(C_{2}\) is a negative answer to the partial answer and does completely answer the super-question.

If both of these conditions hold, a concessive particle is licensed. For the licensing of the adversative coordinator, on the other hand, only the first condition needs to hold. This proposal captures the intuition as to why Anscombre and Ducrot (1977) have observed that the second conjunct in a concession 'outweighs' the first. I have shown that this account does not only hold for the Wolof particles naam and gaa, but also for unrelated languages such as English, German, French, Russian and Macedonian.

\section*{9 Second position particles I: Contrastive Topics}

\subsection*{9.1 Introduction}

This chapter investigates the second position use of the particles de (also written as déy), moom and nak (also written as nag or nakk). While all other particles discussed thus far in this thesis can also occur in second position, save for ba and naam, in Chapter 10 I show that de, moom and nak form a separate group, based on the types of topics they are placed after. The particles de, moom and nak can optionally occur after contrastive topics (CTs), but not after non-contrastive topics. The other particles can occur with both contrastive and non-contrastive topics, which I will also refer to as familiar topics or thematic topics. Particles belonging to Group II have the same meaning contribution in second and sentence-final position. Group I particles, on the other hand, have a different function in second position as opposed to sentence-final position. In order to get an idea of the difference between these two groups, consider the minimal pairs provided by J. L. Diouf (2001) in (1), which illustrate both Group I particles (de and moom) and Group II particles (daal and kat).
(1) a. Ndakaaru moom neex na.

Dakar моом be.sweet clfoc.3SG
'Dakar, en ce qui le concerne, est agréable.'
'As far as Dakar is concerned, it is agreeable.'
b. Ndakaaru de neex na.

Dakar de be.sweet clfoc.3sG
'Dakar, en ce qui le concerne, est agréable.'
'As far as Dakar is concerned, it is agreeable.'
c. Ndakaaru daal neex na.

Dakar DaAl be.sweet clfoc.3SG
'Tout compte fait, Dakar est agréable.'
'All in all, Dakar is very agreeable.'
d. Ndakaaru kat neex na.

Dakar Kat be.sweet CLFOC.3SG
'Dakar, quoi qu'on en pense, est agréable.
'Dakar, whatever you think, is agreeable.'
(J. L. Diouf 2001, p. 204)

Despite labelling all four particles in (1) (i.e., moom, de, daal and kat) as 'contrastives', J. L. Diouf (2001) does give different translations for the sentences in (1). Crucially, (1-a) and (1-b), which contain a topic marked with moom and de respectively, are translated the same way, i.e., 'As far as Dakar is concerned', while (1-c) and (1-d) get a slightly different translation. (1-c), with the particle daal, is translated as 'all in all', in line with my analysis of daal as a summarizing particle in Chapter 3. The contribution of kat in ( \(1-\mathrm{d}\) ) is translated as 'whatever you think', thus suggesting disagreement, in line with my analysis of kat as a disagreement particle in Chapters 4 and 6 . While de can have the same function as kat in sentence-final position, the translations of (1-d) and (1-b) suggest they have different functions in second position.

This chapter is structured as follows: in Section 9.2 I give an overview of topic marking and topic types cross-linguistically, focusing particularly on contrastive topics and how to recognize them. Before zooming in on the particle-marked topics in Section 9.4, I will show how topics in general are marked in Wolof in Section 9.3. Section 9.4 also shows the micro-variation between the three particles. Since too little data is available on the sentence-final uses of the particles moom and nak to warrant a separate chapter, their sentence-final uses, too, are discussed in this chapter in Section 9.5 . Section 9.7 presents the analysis of the particles de, moom and nak. The analysis will be in terms of CT conditions à la Büring (2003): I will show that the felicity of each particle can be captured by a variant of CT-Congruence (Büring 2003). In Section 9.7 I also argue that the meaning attributed to sentence-final de in Chapter 7 , namely a (pragmatic) intensifier, cannot be extended to capture second-position de and therefore treat \(d e\) as a polysemous item with two separate senses. In Section 9.8 I show that the particles are infelicitous with non-contrastive topics. That Section furthermore presents data on topics in Wolof which are not resumed by a pronoun, and discusses the order of topics and foci in Wolof. Section 9.9 concludes.

\subsection*{9.2 Topics cross-linguistically}

Definitions of a topic, or what Vallduví (1993) refers to as a 'link', include 'what the sentence is about' or 'the file card onto which the information is entered', cf. Reinhart
(1981) and Vallduví (1993). Various authors have furthermore identified sub-types of topics.

Cross-linguistically, topics are often dislocated to the left-edge or the right-edge. Right-dislocated topics are also called after-thought topics Givón (1976, p. 154). Other pragmatic topic types include aboutness topics, shifting topics, familiar topics and continuing topics (Frascarelli and Hinterhölzl 2007). Additionally, Chafe (1976) identifies 'frame-setting' or 'frame' topics. Krifka (2008, p. 269) describes them as "setting the frame in which the following expression should be interpreted". Frame-setters are often adverbials, such as healthwise in (2), or prepositional phrases.
(2) A: How is John?

B: Healthwise, he is FINE.
(Krifka 2008, p. 268)
While contrastive topics have specific discourse conditions and are therefore relatively easy to identify, other topic types are not. Roberts (2011) has shown that, while there are tests for topicality, none of them are reliable. Following her, Büring (2016) only differentiates between contrastive and non-contrastive topics and refers to the latter as as thematic topics. For my present purposes I only differentiate between contrastive topics and topics that are non-contrastive here.

In the theory put forward by Büring (1997, 2003), a contrastive topic (CT) is identified using QUDs. \({ }^{1}\) A contrastive topic occurs in an answer to a sub-question and implies that there are other sub-questions about different topics, i.e., it indicates a strategy in the sense of Roberts (1996). The felicity conditions of a CT are captured by the CT-Congruence condition (Büring 2003). The CT-Congruence condition and definition of a strategy are given in (3).
(3) a. CT-Congruence: An utterance \(U\) containing a contrastive topic can map onto a move \(M_{U}\) within a d-tree \(D\) only if \(U\) indicates a strategy around \(M_{U}\) in \(D\).
(Büring 2003, p. 520)
b. Strategy: \(U\) indicates a strategy around \(M_{U}\) in \(D\) iff there is a non-singleton set \(Q^{\prime}\) of questions such that for each \(Q \in Q^{\prime}\), (i) \(Q\) is identical to or a sister of the question that immediately dominates \(M\) and ii) \(\llbracket Q \rrbracket^{o} \in \llbracket M \rrbracket^{c t}\) (Büring 2003, p. 520)

A strategy can be visualized using d-trees (Büring 2003). Each node in the tree represents a discourse move, i.e., a question or assertion. In order for the tree to be

1 Contrastive topics were initially called 'sentence topics' in Büring (1997)
well-formed, all moves must be relevant to the question node that dominates them. Büring's 2003 definition of Relevance is given in (4).
(4) Relevance (Büring 2003, p. 518)
a. an assertion A is relevant in a d-tree DT iff A is an answer to the QUD for A in DT
b. a question \(Q\) is relevant iff at least one answer to \(Q\) is an answer to the QUD for Q in DT

According to Büring (2003, p. 518) an answer A is an answer to a question Q "if A shifts the probabilistic weights among the propositions denoted by \(\mathrm{Q}^{\prime \prime}\).

Büring (2003) proposes that the CT-value of a sentence is a set of sets of propositions, i.e., a set of questions. The CT-value is calculated by first substituting the focus then substituting the CT. For an example like (5) this leads to questions in the form of 'What did Fred eat?, What did Marc eat?, What did Tzeitel eat?...'
(5) A: What about Fred? What did he eat?

B: \(\underline{F r e d}_{\mathrm{CT}}\) ate the BEANS.
(5) shows that the contrastive topic in the answer, 'Fred' corresponds to who the immediate QUD ‘What did Fred eat?' is about. In Section 9.4 I show that the particles moom and nak in Wolof can also occur after topics in questions that are the immediate QUD to an answer with a CT. The d-tree for (5) is given in (6).
(6)

Who ate what?
What did Fred eat? What did Marc eat? What did Tzeitel eat? ...
Fred ate the beans
Büring (2016) discusses different uses of CTs. First, there are partial topics, which occur in answers to multiple constituent questions, such as 'Fred' in the answer in (6). Then, there are shifting topics, in which the answer does not answer the question under discussion, but suggests that another question might be relevant, as (7).
(7) a. Where did Fritz buy this book?
b. Bertiect bought it at HARTLIEB.

Finally, there are purely implicational topics, in which the answer directly resolves the question that was asked, but the CT indicates additional questions, as (8).
(8) a. Where was the gardener at the time of the murder?
b. The gardener \({ }_{C T}\) was in the HOUSE.

English, (Büring 2016, p. 7)
Most of the CTs presented in this chapter, both elicited and natural, are partial topics.
Cross-linguistically, CTs are expressed by intonation, particles, position or a combination thereof, see McNally (1998) for an overview. Languages that are thus far known to employ particles in CT-marking are Japanese (Hara 2003; Kuno 1973), Korean (Lee 1999), Mandarin Chinese (Constant 2014), Paraguayan Guaraní (Tonhauser 2012), Eastern Cham (Baclawski 2018) and, Akan and Ewe (Ameka 2010). Examples of Akan, Japanese, Mandarin Chinese and Eastern Cham are given in (9).
(9) a. Me des me-ba-a ha nera 1SG as.for 1SG-come-PST here yesterday
'ICT came here yesterday \({ }^{\dagger}\) ' Akan (Boadi 1974, p. 6)
b. Hanako-WA piza-o tabeta.

Hanako-wa pizza-acc ate
'Hankoct ate pizza (but not Taro).' Japanese (Miyagawa 2017, p. 25)
c. Bàba ne gāncuì jiù bù huíllái
dad ne simply just not return-come
'And \(\underline{\text { dad}}_{\mathrm{CT}}\) doesn't even come back at all!' Mandarin Chinese (Shao 1989, p. 174)
d. Hu thừə ? ст T. invite self in this come
'Thuan \({ }_{\text {CT }}\) invited me to come here...' Eastern Cham (Baclawski 2018, p. 1)

In (9-a) we see that Akan has a topic particle dee that follows the contrastive topic. Similarly, in Japanese the stressed suffix -wa and in Mandarin the suffix -ne attaches to the right edge of the CT. The difference between -ne and -wa is that while ne-marked topics in Mandarin must be interpreted as CTs, wa-marked topics in Japanese can also be non-contrastive (Constant 2014; Kuno 1973). The fact that the -wa in (9-b) bears the focal accent is what distinguishes the utterance from one with a non-contrastive topic. The only language in which CT particles have been described and in which the particle
precedes the topic is Eastern Cham. In (9-d) we see that the CT marker \(h u\) precedes the topic 'Thuan'.

Besides the differences in marking, there are also other differences in the usage of contrastive topics cross-linguistically. While in English and German CT intonation does not occur in questions, in other languages, such as Japanese (Tomioka 2010) and Mandarin Chinese (Constant 2014), CT-marking does occur in questions. In Section 9.4 I will show that the particles nak and moom can occur in questions, while de cannot.

Having discussed the different types of topics and their cross-linguistic realization, I now zoom in to topicalization in Wolof.

\subsection*{9.3 Topics in Wolof}

Topicalization in Wolof has so far been most extensively discussed in Cissé (2008), Martinović (2015b), Rialland and Robert (2001), Russell (2006), and Torrence (2013a). Rialland and Robert (2001) and Cissé (2008) both note that topicalization is common. Russell (2006) identifies topics in Wolof by left-dislocation and pronoun resumption. An example of a left-dislocated topic in Wolof is given in (10):
(10) Jën w -i, mus m-i moo ko lekk.
fish NC.SG-PROX.DEF cat
'The fish, the CAT ate it.'

In (10) the object jën wi 'the fish' appears in the left periphery and is resumed by the object clitic \(k o\). The canonical object position is post-verbal, as in (11).
(11) Muus m-i moo lekk jën w-i.
cat NC.SG-PROX.DEF 3SG.SFOC 3SG.O eat fish NC.SG-PROX.DEF 'The CAT ate the fish.'

Torrence (2013a) furthermore shows that topicalization by Clitic Left Dislocation (CLLD) can be applied to both arguments and adjuncts, (12) is an example of an adjunct, kër ga 'the house', being left-dislocated and obligatorily resumed by the clitic \(f a\) 'there'.
(12) Kër g-a, gis naa \({ }^{*}(\mathrm{fa})\) Gàllaay.
house nc.sG-def.dist see clfoc.3SG there G.
'The house, I saw Gallaay there.'
(Torrence 2013a, p. 76)
Additionally, Rialland and Robert (2001) have phonetically shown that topics have a bellshaped pitch contour and are followed by a pause. Rialland and Robert (2001) show that
a Wolof sentence can have a completely flat intonation, when there is no topicalization, as shown in Figure 1.2. When there is topicalization, however, "intonation groups [are] subdivided into intonation groups marked by bell-shaped contours" (Rialland and Robert 2001, p. 916), as in Figure 1.1.


Figure 9.1: Peer ak Sàmba, dañu ñëw démb.
Figure 9.2: Peer ak Sàmba ñ̈̈̈ nañu démb. (Rialland and Robert 2001, p. 901)

They describe the bell-shaped contour on Peer ak Samba in Figure 1.1 as "a unit that begins at a low target ( L ), rises to a high target \((\mathrm{H})\), and falls back to terminate on a low target (L)" (Rialland and Robert 2001, p. 917). Furthermore, they indicate by a that there is a short pause between the topic and the rest of the sentence, as in (13).
(13) Peer mburu m-i la lekk.
P. pause bread nc.sG-def.prox cfoc.3sG eat
'As for Peer, he ate the BREAD.' \({ }^{2}\) (Rialland and Robert 2001, p. 898)
The example they give in (14) shows that the topic phrase forms a 'prosodic group', indicated by brackets. The example in (14) furthermore employs the particle nag (i.e., nak in this thesis).
(14) (Njarị̆ l-i nag), (dinañu ko séddoo) (c-a na mu profits NC.SG-DEF.PROX NAK FUT.3PL 3SG.O share LOC-DIST as 3SG.S war-e).
must-APPL
'(As for the profits), (they'll be shared out) (as they should be).'
(Rialland and Robert 2001, p. 917)
A pitch track of a sentence from my own data with a contrastive topic sentence is shown in Figure 9.3. The sentence shown in Figure 9.3 is (15), which is an utterance with three CTs in three successive clauses. The CTs in (15) are not marked by any particle.

\footnotetext{
2 Original translation: 'As for Peer, it was bread he ate.'
}


Figure 9.3: Pitch contour CT sentence with no particle.
(15) Kii, joto la-y ba Farans. Kii, awiyon NC-PROX.DEM car CFOC.3SG-IPFV take until France NC-PROX.DEM airplane la-y jël. Kii, bato la-y jël. CFOC.3SG-IPFV take NC-PROX.DEM boat CFOC.3SG-IPFV take "This guyct takes a CAR to get to France. This guyct takes an AIRPLANE. This guyct takes a BOAT.' Ndem

In (15) the speaker is comparing how each of three people go to France, thus the super-question addressed is 'How will everybody go to France?'. The demonstrative kii, which refers to each person respectively, is the CT in each sentence.

In Figure 9.4 we see that the bell-shaped contour described by Rialland and Robert (2001) is also present when there is a particle, here \(d e\).

As for the possibility of Clitic Right Dislocation, there is disagreement in the literature: According to Rialland and Robert (2001, p. 898) it is not possible, according to Cissé (2008) it is possible and according to Torrence (2013a) it is restricted to emphatic pronouns. My own findings are that the acceptability of right-dislocated topics is subject to speaker variation. First, consider an example from Torrence (2013a), whose consultants only accepted right dislocation with emphatic pronouns, (16):
(16) Gis naa *(leen) démb, ñoom. see CLFOC.ISG 3PL.o yesterday 3PL.EMPH
'I saw them yesterday, them.'


Figure 9.4: Pitch contour CT sentence with de.

As with left dislocation, right dislocation has to be resumed by a pronoun; in (16) the dislocated emphatic pronoun ñoom 'they/them' is resumed by the object clitic leen 'them'. Torrence (2013a) also shows that left and right dislocation can occur together, as in (17):
(17) Xale y-i, gis naa *(leen) démb, ñoom. child nc.sG-def.prox see see clfoc.1sg 3PL.o yesterday 3Pl.emph 'The kids, I saw them yesterday, them.'
(Torrence 2013a, p. 76)
In (17) both the left-dislocated topic xale yi 'the children' and the right-dislocated one noom have the same referent. The clitic leen 'them' serves as a resumptive element for both. It is not known whether right and left-dislocated topics with different referents can co-occur.

Now, an example from Cissé (2008) in (18), for whom full nouns can also be rightdislocated.
(18) Rafet na, sa mbubb m-i.
be.pretty 3SG.clfoc 2 SG.poss caftan NC.SG-Def.Prox 'It is pretty, your caftan.'

Placing together the findings of Rialland and Robert (2001), Cissé (2008) and Torrence (2013a) it seems that there is speaker variation as to the degree of acceptability of right dislocation. This is reflected in my own data, where not all consultants accepted
right-dislocated topics. What is clear, however, is that even people who accept right dislocation in general, did not accept it for particle-marked topics, as shown in (19):
(19) a. Binta nop na ko, Amadou.
B. love clfoc. 3 sg 3 sg.o A.
b. *Binta nop na ko, Amadou de/kañ.
B. love clfoc. 3 SG 3sG.o A. DE KAÑ
'Binta loves him, Amadou.'
(19-b) shows that both the particle \(d e\), which is shown in Section 9.4 to co-occur with CTs, and the particle kañ, which is shown in Chapter 10 to co-occur with both contrastive and non-contrastive topics, are ungrammatical after a right-dislocated topic.

Another difference between marked and unmarked topics, is that while according to Russell (2006), multiple topics are allowed, Torrence (2013a) shows that this is not the case for multiple marked topics. An example with a topic marked with nak is given in (20).
(20)


Only the first or only the second topic, or neither, can be marked with nak, as shown by (20-a) and (20-b). (20-c), which contains two consecutive left-dislocated topics both marked with nak, is ungrammatical. \({ }^{3}\) The fact that two nak-marked topics cannot

3 Additionally, Torrence (2013a) has uncovered an interesting interaction between nak-marked topics and the polar question particle ndax. When ndax occurs between the two topics, as in (i), the construction becomes grammatical again.
(i) Góór g-i nag [ndax xale y-i nag, dàq na-ñu \({ }^{*}(\mathrm{ko})\) ]?
man nc.sG-def.prox nak \(Q \quad\) child nc.sG-def.prox nak chase clfoc-3Pl 3SG.O
'As for the man, as for the children did they chase him?'
Merely the presence of ndax does not suffice. As shown in (ii), if ndax doesn't occur between the topics, the sentence is still out.
co-occur is in line with my proposal that nak-marked topics are contrastive, as usually there is no more than one contrastive topic per clause. \({ }^{4}\)

Torrence (2013a) observes that two consecutive, particle-marked topics are possible when the topics are marked with different markers. He gives examples with the particles gaa and nak, which can co-occur in that order, as shown in (21).
a. Xaj b-i
gaa, muus y-i
nag, dàq na
dog nc.sG-def.prox gat cat nc.sG-def.prox nak chase clfoc-3pl leen.
3SG.O
b. *Muus y-i
nag, xaj b-i
gaa, dàq na
cat nc.sG-Def.prox nak dog nc.sG-def.prox gat chase clfoc-3PL
leen.
3SG.O
'The dog indeed, as for the cats, it chased them.' (Torrence 2013a, p. 90)

With (21) Torrence (2013a) shows that a gaa-marked topic can precede a nak-marked topic, but not follow it. Furthermore, he translates \(g a a\) as 'indeed' and nag as 'as for'. I show in Chapter 10 that, while nak-marked topics are contrastive topics, gaa-marked topics can also be familiar topics. So the ordering restriction due to the order of contrastive and familiar topics.

For completeness, it should be noted that another way to mark topics is with the preposition, rather than a particle, such as pur 'for' in (22-a), or ci, the general locative preposition, in (22-b).
(22) a. Pur man, k-i gën-a muus moo-y
for 1SG.EMPH NC.SG-Def.Prox exceed-vl be.shrewd sfoc.3SG-IPFV
boroom xeer y -i
owner rock nc.pl-Def.prox
'For me, the one with the rocks is the shrewdest one.' Dakar
(ii)
```

a. ??*Góór g-i nag xale y-i nag [ndax dàq na-ñu ko]?
man nc.sG-def.Prox nak child nc.sG-DEF.Prox NAK Q chase clfoc-3Pl 3SG.O
'As for the man, as for the children did they chase him?'
b. ??*[Ndax góór g-i nag xale y-i nag dàq na-ñu ko]?
Q man nc.sG-def.Prox naK child nc.sG-DEf.Prox nak chase clfoc-3PL 3SG.o
'As for the man, as for the children did they chase him?'

```

Torrence (2013a, p. 87) gives a carthographic analysis for the different positions.
4 While in principle it is possible to have two contrastive topics in one clause, at least in English (see Constant (2014, pp. 76-78) for examples), such sentences require a very specific context to make sense. I did not manage to elicit multiple CTs in Wolof, even using the contexts from Constant (2014)
b. Ci man, moo nekk ci dëgg. LOC 1SG.EMPH 3SG.SFOC exist LOC truth 'Pour moi, c'est lui qui a raison.'
'For me, HE is right.'
(J. L. Diouf 2003, p. 445)

One speaker corrected himself when saying pur man, saying that it is the French variant of the Wolof ci man 'as for me' (lit: 'in me'). The literal Wolof translation of 'pour' is ngir 'for', but this is not used in topics. Having given a background of topicalization in Wolof, in the next section I turn to the three relevant particles: de, moom and nak.

\subsection*{9.4 The different CT particles}

The particles that can occur after CTs are de, moom and nak. However, while CTs can be marked by these particles, they are not obligatory for the realization of CTs. Sometimes elicitation of a list resulted in no morphological CT-marking at all, as in (23).
(23) A: 'When did everybody win?'

B: Jean gañe na weer-u màggal, Kumba gañe na
J. win clfoc.3sG month-gen celebration K. win clfoc.3SG
weer-u tamxarit.
month-GEN Ashura
\({ }^{\prime}{ }^{\text {Jean }}{ }_{\mathrm{CT}}\) won in the month of the Grand Magal, Coumba \({ }_{\mathrm{CT}}\) won in the first month.'

Furthermore, I used two versions of the storyboard Animal Party (Littell 2010). In this storyboard a crab is having a birthday party and a mouse asks the crab what each of the guests brought. One version is such that the mouse asks about each individual guest at the party what they brought. In the other version the mouse asks about each item who it was brought by. When using the former version, the subjects were sometimes realized as dislocated topics. When using the latter version, however, the objects that the mouse asked about were never topicalized, but were rather realized as object clitics, as in (24).
(24) A: K-an moo indi ndox y-i?

NC.SG-Q 3SG.SFOC bring water NC.PL-DEF.PROX
'Who brought the drinks?'
B: Jan b-ee ko indi.
Snake NC.SG-DEF.PROX.SFOC 3SG.O bring
'The SNAKE brought it.'

Finally, negative quantifiers, such as nobody, can not be topics (Lambrecht 1996). The example in (25) shows that kenn ci ñoom 'none of them' cannot be marked with de or moom.
(25) A: 'When was everybody born?'

B: K-enn ci ñoom (*de/ *moom) judd-ul ci weer-u
NC.SG-Some loc 3PL.EMPH DE MOOM be.born-NEG.3SG in month-GEN Méé.
May
'None of them was born in May.'
In the following section I discuss the cases in which the marking did occur, starting with de, then moom and then nak.

\subsection*{9.4.1 CTs with de}

In the recorded discourse I have collected, the particle de most frequently occurred in the construction man de 'as for me'. Out of 73 tokens of de in total, 45 were in second position. Out of those 45 tokens of second-position de, 15 were following the emphatic first singular pronoun man. Examples are given in (26)-(28).
(26) Ah, man de gis-u-ma cuuc.
intrj 1SG.EMPH DE see-NEG-1SG chick. 'Oh, \(\underline{I}_{с т}\) don't see a chick.'

Dakar
In (26) two people are describing an ambiguous picture. One person, \(A\), says the picture looks like a chick, after which the other, B, says (26). Thus, (26) implies that in addition to the sub-question 'What does B see?', there is another sub-question, in this case 'What does A see?'.
(27) and (28) are both examples from speakers starting the discourse by giving their opinion on a certain subject, which may differ from what the other discourse participants think, although those participants haven't spoken yet. Thus, (27) and (28) are purely implicational topics.
(27) Man de xalaat naa l-u baax la. 1SG.EMPH DE think CLFOC.1SG NC.SG-REL be.good CFOC.3SG 'I \(\underline{I}_{\text {Ст }}\) think it is a good thing.'
M.M, Dakar
(28) Waaw, man de, n-i ma-y gis-e rivalité yes 1SG.EMPH DE NC.MANN-DEF.PROX 1SG.S-IPFV see-APPL rivalry
b-i nga xam ne am na entre... entre
NC.SG-DEF.PROX 2SG.s know COMP have CLFOC.3SG between.FR between.FR
deux frères...
two.FR brothers.FR
'Right, the way ICT see the rivalry which there is between... between two
brothers.'

An example of de occurring after another element than man 'me' is given in (29). In (29) de follows the demonstrative lii 'this one'. In the context lii 'this one' refers to a new picture. The two speakers have finished describing one ambiguous picture and now turn their attention to the following one.
(29) L-ii de, b-enn paa la b-u jël loxo

NC.SG-DEM.PROX DE NC.SG-some old.man CFOC.3SG NC.SG-REL take arm b-i teg ko ci dënn b-i.
NC.SG-DEF.PROX put 3SG.O LOC chest NC.SG-DEF.PROX
\({ }^{\prime}\) This one \(_{C T}\) is an old man that has put his hand on his chest. \({ }^{5}\) Dakar
(30), from Doomi Golo, shows an example in which a free relative phrase is marked with \(d e\). The narrator is contrasting rich people with people who live in Niarela.
(30) 'Senegal, I know, whoever has wealth and the ability to build whatever they want here lives in a pretty house in Fann Residence or Almadies.'
Wax dëgg, ku ñëw luye xottu baraag fii ci say truth NC.SG-REL come rent empty-GEN barack here.prox loc
Ñarelaa de, mën ngaa bañ a son-al sa bopp ak Niarela DE can 2SG refuse vd be.tired-caus poss.2sg head com njaayum maanaa merchandise importance
'Truthfully, whoever comes to rent an empty barack here in Niarela \({ }_{C T}\), on the other hand, can stop worrying themselves with merchandise.'
(B. B. Diop 2003, p. 55)

In (30) the free relative ku ñëw luye xottu baraag fii ci Ñarelaa 'whoever comes to rent an empty barrack here in Niarela' is contrasted with 'whoever has wealth and the ability to build whatever they want here'.

In elicited examples with lists, de usually occurs on the first CT of a list, as shown in (31).

\footnotetext{
5 While Wolof doesn't have serial verb constructions, the speaker here used one.
}
(31) a. 'Where will everybody travel to?'
b. Awa de Marok la-y jëm, Moussa, Mali la-y jëm.
A. De Morocco croc.3sG go.to M. Mali grcfoc.3sg go.to
'Awact will go to MOROCCO, Moussact will go to MALI.'
elicited
While two occurrences of de are not ungrammatical, no one I consulted produced two occurrences of de spontaneously. A constructed example which was judged as felicitous is shown in (32).
(32) Man de a-y yeere laa jënd, waaye Mbaalo de 1SG.EMPH DE INDF-NC.PL clothing CFOC.1SG buy but Mb. INDF-NC.PL
a-y màngo la jënd.
mango 3sG.cFoc buy 'ÍIст bought CLOTHES, while Mbaaloct bought MANGOES.' elicited

Finally, de cannot occur in constituent questions, as shown in (33).
(33) *Kumba de, l-an la jënd?
K. DE NC.SG-Q CFOC.3SG buy

Intended: ‘What about Coumba, what did she buy?' elicited

\subsection*{9.4.2 CTs with moom}

When eliciting CTs, the particle that was most frequently volunteered was moom. Starting with some non-elicited examples, (34) is an example from an article on Wikipedia, in which the fall of Nupedia is contrasted with the rise of Wikipedia.
(34) Ci 26 weer-u koor 2003 la Nupedia tëj ba fawwu, Wikipedia on 26 month-gen fasting 2003 3SG.cfoc Nupedia close forever Wikipedia moom wéy di màgg.
moom sing ipfv grow
'On the 26th of September, \(\underline{\text { Nupedia }}_{\text {CT }}\) shut down forever, while Wikipediact prospered.'
(Wikipedia contributors 2004b)
(35) is from the story Coxor ak Mbëgge 'The Cruel One and the Greedy One'. The djinn Kékk, in the form of an old lady, has offered the two friends a wish, on the condition that whatever one person wishes, the other will get twice as much. As they are cruel and greedy respectively, neither of them wants the other to be better off than them. Finally, the Greedy One wishes to be blind in one eye, after which Kékk utters (35), in
which contrasts what will happen to the Greedy One with what will happen to the Cruel One.
(35) Yaw Mbëgge m-ii, danga patt, waaye 2SG.EMPH Greedy NC.SG-DEM.PROX VFOC.2SG blind.in.one.eye but
kii di Coxor moom dina gumba!
NC.SG-DEM.PRox ipfv Mean moom fut.3sG blind
\({ }^{\text {You }}{ }_{C T}\), Greedy One, you will be blind in one eye, but this Mean One \({ }_{c t}\) will be (completely) blind!' (Njaay and B. Ka 2006, p. 20)

Both (34) and (35) are examples in which only the second topic is marked with a particle. This is revisited in the elicited examples further down. (36) is an example from a recording in which the speakers discuss a dilemma tale about three youths who each cross a pond in a different way. The question is which of three young men is the most shrewd. One speaker says (36) about one of the youths.
(36) Kooku moom muus na torop.
that.person moom be.shrewd clfoc.3sG a.lot 'That guyct is very shrewd.'

Dakar

In the context for (37) the discourse participants are discussing the dilemma tale Bukki ak Gaynde 'Hyena and Lion', in which the hyena and the lion start to panic due to a misunderstanding and spread mass hysteria among the forest creatures. The example in (37) has a scalar interpretation, i.e., 'if even the lion, the bravest creature, is scared and runs away, then I will definitely do so too'.
(37) Gaynde moom bu daw-ee rekk, dama-y daw.
lion MOOM if.3SG run-PFV only VFOC.ISG-IPFV run 'If the lion \({ }_{C T}\) just starts running, I will run.' Dakar

Another speaker used the construction in (38), which repeats the topic man three times with a different marking, once with de, once with pur and once with moom.
(38) Man de, pur man... man moom mën-u-ma xaar ba boroom 1SG.EMPH DE for 1SG.EMPH 1SG.EMPH MOOM can-NEG-1SG wait until owner oto b-i ñów.
car NC.SG-DEF.PROX come
'As for me... I... \(\mathrm{I}_{\text {Ст }}\) can't wait until the owner of the truck comes.' Dakar
In (38) three speakers are discussing a dilemma tale about a man who was very hungry
and stole food from a truck. After one speaker has finished saying what they have said, the next started with (38).

As for the elicited examples, with partial topics in list environments moom can occur multiple times, as in (39):
(39) a. 'Where will everybody travel to?'
b. Musa, Mali la-y tukk-e. Moussa Mali cFoc.3sG-IPfy travel-Appl 'Moussact will travel to MALI.'
c. Fatou moom, Nigeria la-y tukk-e.
F. моом N. cFoc.3sG-IPFV travel-Appl 'Fatou \({ }_{C T}\) will travel to NIGERIA.'
d. Bachir moom, Côte d'Ivoire la-y tukk-e.
B. моом C. d'I. CFOC.3SG-IPFV travel-Appl
'Bachir \({ }_{C T}\) will travel to CÔTE d'TVOIRE.' elicited
The example in (39) was volunteered like that by a speaker. When asked whether moom can also occur after 'Moussa', the first CT of the list, they have commented that is possible but slightly worse than on the second or third CT of the list, in line with the natural examples (34) and (35). When asked about the difference between moom and de several people have commented that they are interchangeable. Nonetheless, moom was usually not produced on the first CT, as also shown with the examples in (40) and (41).
(40) and (41) are two examples from an elicitation session with the same speaker with the storyboard Bake-Off (TFS Working Group 2011). In both examples the exploits of a man and a woman are being compared.
(40) \(\mathrm{N} u\) tàmbali di raxas. Góór g-i raxas a-y bool 3PL.S begin IPFV wash man NC.SG-DEf.Prox wash indef-nc.pl bowl y -u bëri, teg ci raxas-aale suuf b-i. Jigéén nC.PL-ReL be.many moreover wash-ass floor nc.sG-def.prox woman b-i moom, ñaar-i bool kese la raxas. nc.SG-def.prox moom two-pl bowl only cFoc.3sg wash 'They started to clean. The man \({ }_{\text {CT }}\) cleaned many dishes, and in addition cleaned the floor. The woman \({ }_{\mathrm{CT}}\), she only cleaned TWO PLATES.'

In (40) the exploits of góor gi 'the man' are first described, after which jigéén bi 'the woman' is mentioned and marked with moom. \({ }^{6}\) We see a similar thing in (41), in which

\footnotetext{
6 The original noun class for \(j\) jigéen 'woman' is the \(j\)-class, but this speaker used the default \(b\)-class.
}
again 'the woman' is the second CT and marked with moom. Note also that in (41) 'the man' is marked as a focus, not as a topic. I don't know why this is.
(41) Moo def-ar a-y gato \(y\)-u bëri, teg ci

SFOC.3SG do-EFF INDEF-NC.PL cake NC.PL-REL be.numerous moreover
b-eneen b-u gën-a ngand. Jigéén j-i moom, NC.SG-other NC.sG-REL exceed-vL be.sturdy woman NC.SG-DEF.PROX MOOM b-enn rekk la def-ar. grnc.sg-one only CFOC.3SG do-EFF
'HE (i.e., the man) made many cakes, besides, he made an additional which was the largest. The woman \({ }_{C T}\), she only made ONE.'

Interestingly, some speakers also alternated moom with tamit 'also', as in (42). In the English translation 'also' is infelicitous in those contexts. Thus, there are differences in the way tamit is used in Wolof and its translation 'also' in English, which should be explored on a future occasion.
(42) a. 'When was everybody born?'
b. Moussa Saywiyé la juddu.
M. January cFOc.3sG be.born
'Moussact was born in JANUARY.'
c. Fatou moom, ci Fééwəriyé la juddu.
F. MOOM LOC February CFOC.3sG be.born
'Fatou \({ }_{C T}\) was born in FEBRUARY.'
d. Hamine tamit, ci Mars la juddu.
H. also Loc March cFoc.3sG be.born
'Haminect, also, was born in MARCH.'
e. Bachir moom, ci Awril la juddu.
B. moom loc April cFoc.3sg be.born
'Bachir \({ }_{C T}\) was born in APRIL.'
f. Awa tamit, ci Suwey la juddu.
A. also Loc June CFOC.3SG be.born
'Awact, also, was born in JUNE.'
elicited

Büring (2016) notes that the speaker doesn't need to know the answers to all of the sub-questions entailed by the super-question in order to felicitously use a CT. Examples of this from Wolof are given in (43) and (44).
(43) A: 'When is everybody's birthday?'

B: Fatou moom, juróóm benn fan ci weer-u fevrier la, waaye Fatou moom 5 I day in month-Gen February cFoc.3sg but ñ-i ci des, xawma seen anniwerseer. NC.PL-DEF.PROX LOC remain know.NEG.ISG 3PL.POSs birthday \({ }^{\prime}{ }^{\text {Fatou }}{ }_{C T}\) was born on the 6th of May, but the others, I don't know their birthdays.'
elicited
(43) was elicited with moom following 'Fatou', (44) shows a similar sentence, for which I asked whether de was possible on each CT, even though the speaker initially realized it without a particle.
(44) Anniwerseer-u Fatou (de) weer-u tabaski la, mais y-eneen birthday-GEN F. DE MOOM month-GEN eid.al-adha CFOC.3SG but.FR y-i ci des (de) xawma ko. NC.PL-other NC.PL-DEF.PROX remain DE know.NEG.1SG 3SG.O
'Fatou's birthdayct is in the month of Eid al-Adha, but of the remaining ones, I don't know it.'
elicited

A shifting topic is a type of CT in which the overt question is still left unresolved by the answer (Büring 2016). (45) is an example in which the speakers answers a different question, 'Can Daba come to the party?' than the explicit question 'Can Doudou come to the party?'.
(45) a. 'Can Doudou come to the party?'
b. Daba moom mën na ñëw...
D. MOOM can 3SG.CLFOC come
'Dabact can come...'
elicited

In the example in (46) the speaker doesn't answer a different question, but doesn't answer the explicit question either.
(46) a. 'Can Doudou come to the party?'
b. Dudu moom xawma l-u jëm ci moom...
D. MOOM know.NEG.3SG NC.sG-REL go.to LOC 3SG.EMPH 'I don't know about Doudouct...'
elicited
Speaker comment: "this implies that someone else can come."

In (46) we also see the construction lu jëm ci 'regarding' (lit: 'what goes towards'). (47) shows that a topic can be marked both with lu jëm ci 'regarding' and with moom. 7

7 The construction \(l u\) jëm ci itself is not only used with topics, as shown in (i).
(47) A: 'Can Doudou come to the party?'

B: Xawma l-u jëm ci Dudu (moom), waaye Daba (moom) know.1sG.neg nc.sG-rel go.to loc D. моом but D. моом mën na ñów. can clfoc.3SG come 'I don't know about DoudoucT, but Dabact can come.' elicited

As for the difference between de and moom, moom was more frequent than de and more often sponaneously produced in elicitation. However, there were no differences in the acceptability judgment of moom- and de-topics in declaratives. The only grammatical difference is found in their use in constituent questions. While we have seen in the previous section that \(d e\) is ungrammatical in constituent questions, moom isn't, as shown in (48).
(48) Jën b-i moom, l-an la indi?
fish nc.sG-Def.Prox moom nc.sG-Q cFoc.3sG bring 'What about the fish, what did they bring?' elicited

Nak-topics, as shown in the next section, have more clear differences compared to both de and moom in declaratives.

\subsection*{9.4.3 CTs with nak}

Finally, we turn to the particle nak. Again, I start this section with natural examples. (49) is from the folktale Kuss Kondorong bi, as written down by Kesteloot and Mbodj (1983).


In the context for (49), the Kondorong, a dwarf-like creature, was being described, and now the man is being described. (50) is an example from a dialogue. The two speakers
(i) Ëtt b-i yor l-épp l-u jëm ci iniweersite b-i... court NC.SG-Rel.DEF.Prox hold NC.SG-all nc.SG-ReL go.to Loc university NC.SG-DEF.Prox 'The establishment which has everything regarding the university...' (Wikipedia Contributors 2019)
describe a picture in which a landscape resembles a face. After they have discussed what objects the nose on the picture looked like, one speaker says:
(50) Moustache b-i nak xawma lu mu-y moustache.FR NC.SG-DEF.PROX NAK know.NEG.ISG what 3SG.O-IPFV niroo:k noonu. resemble.com like.this 'I don't know what the moustache \({ }_{C T}\) looks like.' Dakar

In (51) the speakers have been talking about a dilemma tale involving two old people, a child they have raised and the child's estranged biological mother who suddenly shows up. In (51) the biological mother is referred to as kële, 'that other person', contrasting with the old people who raised the child.
(51) Léégi, k-ële nak bu dem-ee... bu ñëw-ee...
now NC.SG-DEM.DIST NAK if.3SG go-PFV if.3SG come-PFV
'Now, if that other one \({ }_{\text {CT }}\) comes...'
Dakar

In (51) the topic kële, 'that other person' comes before the first clause of the conditional marker \(b u\). (52) additionally shows that a topic, at least a nak-topic, can be extracted from a complement clause.
(52) A: Xawma nak b-an picc la, wànte picc la. Mbaa
know.NEG.1SG NAK NC.SG-Q bird CFOC.3SG but bird CFOC.3SG Q
du ramatu?
NEG.3SG red-bellied.firefinch
'I don't know what bird it is, but it is a bird. It's not a red-billed firefinch, right?'
B: Ramatu nak foog-uma ni [dina naaw ba
red-bellied.firefinch NAK think-NEG.ISG COMP FUT.3SG fly until
ag-si f-ii].
arrive-ven here
\({ }^{\prime}\) I don't think a red-billed firefinch \({ }_{\mathrm{CT}}\) would fly this far.' Dakar

So far we have only seen examples in which nak occurs in the same types of contexts as de or moom. However, there are three things that set apart nak from the other two particles: i) nak can never occur on the first item of a list, ii) nak can only occur once per list and iii) it is the only one of the particles that can occur with FRAGMENT QUESTIONS. The first difference is shown in (53).
(53) a. 'When is everybody's birthday?'
b. Musa (*nak) Saŋwiyé la juddu. M. NAK January cFoc.3sG be.born 'Moussact is born in January.'
c. Fatou \{nak\}, ci Fééwəriyé la juddu. F. NAK LOC February cFOc.3sG be.born \({ }^{\prime}\) Fatou \({ }_{\text {CT }}\) is born in February.'
d. Hamine \{nak\}, ci Mars la juddu. H. NAK LOC March cFoc.3sG be.born 'Hamine \({ }_{\text {ст }}\) is born in March.' elicited

In (53) we see that nak is not only dispreferred on the first CT of a list, like moom, but actually ungrammatical. As for the second difference: nak can optionally occur after either the second or the last CT in (53), indicated by curly brackets, but not after both.

The last difference is that nak is the only particle used in fragment questions. 'Fragment questions' is the term used by Constant (2014) for what are also known as 'truncated questions', i.e., questions that consist of a single constituent that is not itself a question word. First, I show some example of nak in constituent questions. A natural example is shown in (54). After the two speakers have come to the conclusion that a picture of a silhouette depicts a white guy, one of the speakers turns her attention to a dot in the picture and asks (54).
(54) Waaw, point b-u ñuul b-i nak, l-an la ci? yes dot.fr nc.sG-Rel be.black NC.SG-Def.prox nak nc.sG-Q CFOC.3SG loc 'Right, and what about this black dot, what is there?' Dakar

The example in (55) was elicited using the Animal Party storyboard (Littell 2010). The mouse asks the crab what each animal bought. First, they ask about the bear, then they ask about the snake, and then about the fish. (55) shows the second animal that is being asked about, the snake. Note also that in the response, the topic 'the snake' was not realized as an overt noun. There was variation in the realization of the topics among speakers.
(55) a. Jinax laajte: 'Jan nak, lan la ind-aale ci xew-xew mouse ask snake nak what cFoc. 3 sG bring-Ass loc happening b-i?
NC.SG-Def.prox
'Mouse asked: 'And what about Snake, what did they bring to the party?'
b. Koti ne ko: 'A-y naan la indi'. crab say 3SG.O INDEF-NC.PL drink CFOC.3SG bring 'Crab told them: 'They brought drinks'.
elicited, Sanar
(54) and ( \(55-\mathrm{a}\) ) are examples of questions used to elicit CTs. In English the topics in these questions are not marked in the same way as the CTs in the answers are. (55-a) 'What about the snake?', for example, would in English be realized with an A-accent on 'snake', rather than the B-accent which characterizes CTs (Büring 2003; Jackendoff 1972). Cross-linguistically, however, the topics in these questions are often marked the same way as in their answers (Constant 2014). Recall that while moom can also be used in such questions, de cannot. A comparison of the three different particles is shown in (56).
(56) Jën b-i nak/moom/*de, l-an la indi? fish NC.SG-DEF.PROX NAK MOOM DE NC-Q CFOC.3SG bring 'What about the fish, what did they bring?' elicited

Now, while the question in (56) sets de apart from moom and nak, nak is furthermore set apart from moom by (57). Namely, nak is the only particle that occurs with fragment questions.
(57) Yow nak/ *moom/ *de?

2SG.EMPH NAK MOOM DE
'And what about you?' elicited

A construction such as (57) is frequently used as a reply to a question like 'How are you?', for example. Another example is shown in (58), which was recorded at a market A asked for the price of bitter eggplant, onion and now she asks:
(58) A: Karoot b-i nak?
carrot NC.SG-DEF.PROX NAK
'And what about carrots?'
B: Karoot moom, kilo sept cent.
carrot moom kilo seven.FR hundred.FR
'Carrots \({ }^{\text {CT }}\) are 700CFA a kilo'

The following examples, (59)-(61), show that in discourse nak frequently occurs in questions, and that another particle, such as de and moom in the answer. In (59), which is elicited with the Animal Party storyboard (Littell 2010), A is the mouse and B is the crab.
(59) A: Ursu b-i, lu mu ind-aale? bear NC.SG-DEF.PROX what 3SG.s bring-ASs 'The bear, what did they bring with them?'
B: Ind-aale na a-y lekk. bring-Ass CLFOC.3SG INDEF-NC.PL food 'They brought food with them'

A: Waaw, jan b-i nak, lu mu ind-aale, moom? yes snake NC.SG-DEF.PROX NAK what 3SG.s bring-ASS 3SG.EMPH 'Right, and what about the snake, what did they bring with them?'
B: Jan b-i de, ind-aale na a-y boisson. snake NC.SG-DEF.PROX DE bring-ASS CLFOC.3SG INDEF-NC.PL drink.FR 'The snake \({ }_{C T}\) bought drinks.'

A: Lu jën b-i ind-aale? what fish NC.SG-DEF.PROX bring-ASS
'What did the fish bring with them?'
\(B\) : Jën b-i de, indi na radio.
fish NC.SG-DEF.PROX bring 3SG.CLFOC radio
'The fish \({ }_{C T}\) brought a radio.'

In (60), from Faye's (2012) course book, A asks what B and C want to drink. After B has replied, A asks C with the construction yow nag 'and what about you', to which C replies with the construction man de 'as for me'.
(60) A: Am naa bisaap, am naa kokaa, am naa
have clfoc. 1 sg bissap have clfoc.ISG coke have CLFOc.ISG
jinjeer.
ginger.juice
'There is bissap, there is coke, there is ginger juice.'
B: Jox ma bisaap.
give.IMP 1sG.o bissap
'I'll have bissap.'
A: Rama, yow nag loo-y naan?
R. 2SG.EMPH NAK what.2SG-IPFV drink
'And you Rama, what will you drink?'
C: Man de, ndox m-u sedd laa-y naan.
ISG.EMPH DE water NC.SG-REL be.cold 1SG.CFOC-IPFV drink
' \(\underline{I}_{C T}\) will have some cold water.'
(Faye 2012, p. 119)

In (61), from J. L. Diouf and Yaguello's (1991) course book, B has said that they want milk in their tea. Now A asks about sugar, using nak, and B answers using moom.
(61) A: Suukar s-i nag?
sugar NC.PL-DEF.PROX NAK
'What about sugar?'
B: Sukaar s-i moom, na yem.
sugar NC.PL-DEF.PROX MOOM OPT.3SG reach.a.certain.level
'As for sugar \({ }_{C T}\), not more than necessary.' (lit: 'let it reach a certain level')
(Faye 2012, p. 134)

Finally, nak also often occurs in the construction léégi nak 'and now', in which case 'léegi' is not a contrastive topic, but marks a topic change, similar to what Schiffrin (1987) has described as the discourse marking property of now in English.
(62) A: Yeena bokk jëm-ukaay.

2PL.SFOC share go.to-INST
'They arrived there together.'
B: Léegi nak, ci gis~gis-u nit ñ-i, dana-y jàpp now NAK LOC See~RED-GEN person NC.PL-DEF.PROX VFOC.IPL-IPFV take k-i gën-a muus.
NC.SG-DEF.PROX exceed-vL smart
'Now, we have to choose the smartest one.'

In (62) speaker \(B\) brings the attention of \(A\) back to the main point: they have to chose which of the three youths is the smartest.

This concludes the description of the three particles de, moom and nak. The next sections shows that sometimes combinations of two particles can be used for one topic.

\subsection*{9.4.4 Combining particles}

When two particles are combined, moom is usually one of them. An example is given in (63):
(63) a. Moussa, aniwerseer-am weer-u Korite la.
M. birthday-3SG.poss month-Gen Korité cFOc.3SG
'Moussa, his birthdayct is in the month of the Korité (Eid al-Fitr).'
b. Aniwerseer-u Basir moom de, weer-u Màggal la.
birthday-GEN B. MOOM DE month-GEN Màggal CFOC.3SG
'Bachir's birthdayct is in the month of the Grand Magal.' elicited

In (63) moom and de are combined. A consultant commented that the order of moom and de in (63) can be reversed. Since moom is also the form of the third singular emphatic
pronoun, in (63) however, it is not immediately obvious whether moom is used as a pronoun or a particle, although the fact that the subject is non-human, hints at it. In (64), however, which is another example of the co-occurrence of moom and de, moom is unambiguously a particle, as it doesn't agree with the subject.
(64) a. Léégi, soo siar-ee ba pare mën nga génn-aat. now if.2sG pray-PFV until finish can 2sG.CLFOC leave-ITER 'Now, if you have prayed already you can leave again.'

B: B-oo-y siar l-oo-y wax sax? Man de moom
NC.SG-2SG-IPFV prayer NC.SG-2SG-IPFV say even 1SG.EMPH DE MOOM
xam nga dama tàmm-ul siar.
know CLFOC.2SG VFOC.1SG have.the.habit.of-NEG.3SG pray
'What prayer do you even say? \(\underline{I}_{\text {ст }}\) don't usually pray, you know.' Dakar
(65) and (66) are examples of nak and moom co-occurring.
(65) A: Boroom xej b-i gën-a muus. owner arrow NC.SG-DEF.PROX exceed-vL be.shrewd 'The one with the arrows is the most shrewd.
B: Waaw léégi. Bu fekk-ee boroom jaasi nak moom dafa yes now if.3sG find-pFV owner machete NAK MOOM VFOC.3SG jàng-i xam-xam boo xam ni jaasi da learn-AND knowledge Nc.sG-REL.2sG know comp machete VFOc.3SG ko-y dal di dóór [...] kooku tamit muus na. 3SG.o-IPFV stop IPFV hit that.person also be.shrewd ClFOc.3SG Yes, now. If the one with the machete \({ }_{C T}\) has gone and gained the knowledge to stop hitting with it [...] that guy is also shrewd. \({ }^{8}\) Ndem

In the context for (66) two men have been talking about the hardships of life for Senegalese men. Now one speaker changes the topic to 'Senegalese women'. (66) was answered by (104).
(66) Soxna s-i nak moom l-an moo-y wàll-am ci biir lady NC.SG-DEF.PROX NAK MOOM NC.SG-Q 3SG.SFOC-IPFV part LOC inside b-i?
NC.SG-DEF.PROX
'And what about \(\underline{w o m e n}_{C T}\), what's their role in all of this?' Sanar

I have no examples of the combinations de nak, nak de and moom nak. The possible

\footnotetext{
8 Dal is an auto-antonym that can mean both 'start' and 'stop'. The consultant who produced this sentence informed me that the intended meaning here is 'stop'.
}
combinations between the particles remains for future research. The next section shows some uses of sentence-final moom and nak.

\subsection*{9.5 Examples of sentence-final moom and nak}

While like de, moom and nak are found in sentence-final position as well, the meaning of neither of them in that position is clear to me at this point. Thus, this section only presents the relevant data, while the analysis is left for a future occasion. First, let us look at moom.
(67) shows an example with sentence-final moom with an exclamative with \(l i\) 'this'.
(67) L-i mu def noonu moom!

NC.SG-def.prox 3 SG.s do like.that moom
'That which he has done like that!'
Dakar
One example from Chapter 3, repeated here as (68), shows daal and moom together in a clause-final position. Though the contribution of daal is that it concludes the speakers argument, as shown in Chapter 3, it is unclear what moom adds to that.
(68) Élection y-i di ñew, bu si Yàlla def-ul sutura daal election nc.pl-Def.prof ipfv come if loc God make-Neg.3Sg respect daal moom, mën na am safaan. moom can CLFOC.3SG have woe
'As for the coming elections, if God does not help us there could be problems.' Thiès

In the next two examples, (69) and (70), moom appears in truncated sentences with no verb.
(69) A: 'I see the tree. Is the tree a khaya wood or an Egyptian Balsam?'

B: A-g niim la ma-y nuroog, ndax
INDEF-NC.SG neem CFOC.3SG look.like-com because Egyptian.Balsam
sump ci digg pénc b-i moom.
LOC middle square NC.SG-DEF.PROX MOOM
'It seems more like a neem to me, because an Egyptian Balsam in the middle of the square... really?'9 Dakar

\footnotetext{
9 Xay (Latin name Khaya senegalensis, English names include African mahogany and khaya wood) and neem (Azadirachta indica) are types of trees.
}

The example in (70) shows an exclamative that consists of two topics:
(70) Yow de sa àttaaya moom...!

2SG.EMPH DE tea MOOM
'You and your tea!'
(B. B. Diop 2003, p. 88)
(71) shows clause-final nak and moom together.
(71) Waaye man tamit de dafa melni maa-ngi ci-y bëgg-a but emph.1sG also de vfoc.3sg look.like 1sg-Prog loc-IPFV want-vl am-aat b-eneen gis-gis. Dama xam-ul nak moom [mala have-ITER NC.SG-other vision vFOc.1SG know-NEG.3SG NAK MOOM animal boobu, \(n\)-an la-ñ ko-y wax-e ci wolof], waaye escargot this NC.SG-Q CFOC-3PL 3SG.O-IPFV say-APPL LoC wolof but snail.FR daal la-ñ ko-y wax ci tubaab DAAL CFOC-3PL 3 SG.O-IPFV say LOC white.person 'I don't know what this animal is called in Wolof, but in French (lit: 'white people's language') it's called 'escargot' (i.e., 'snail').' Dakar

A final example is given in (72).
(72) A: Dama la-y bind-al ordonaas. Garab y-u ci 1SG.VFOC 2SG-IPFV write-ben prescription medicine nc.PL-REL LOC aay am na léégi. be.effective have clfoc.3sg now 'I will write you a prescription. There is very effective medicine now.'
B: Kon mu baax de, Doktoor. Sonn naa torop moom. thus 3SG be.good De doctor be.tired clfoc.1sG very mоом That's very good, doctor. I am very tired in any case.' (Faye 2012, p. 140)

Constant (2014) observes the CT-particle ne sentence-finally in Mandarin. Furthermore, English has sentential CTs, in which the whole sentence is marked with the Rise-FallRise contour. An example of a sentential CT in English is given in (73).
(73) A: Did anything interesting happen today?

B: [Persephone came over] \({ }_{\text {CT }} \ldots\)
\(\mathrm{L}+\mathrm{H}^{*} \quad \mathrm{~L}-\mathrm{H} \%\)
(Constant 2014, p. 25)
It could be that clause final moom marks sentential CTs. The English translations of the sentences in (72) and (69), for example, are compatible with a Rise-Fall-Rise contour. However, I am not sure that this applies to all the sentences presented in this section.

Therefore, I leave the examples of sentence-final moom without an analysis for now. The sentence-final occurrence of nak, however, I will revisit in Section 9.7. An example from my recordings with sentence-final nak is given in (74). The context for (74) is that a woman is saying how the second wife tries to push out the first wife by cursing her with certain rituals. In the end she poses the question in (74).
(74) Loolu laa bëgg-a laaj nak: lu tax mu la-y sëriñtu? that 1SG.CFOC want-INF ask NAG why 3SG.s 2sG.o-IPFv do.magic 'That is what I want to ask: why does she do magic on you?'

In his dictionary, J. L. Diouf (2003) gives nak a second meaning as 'finally' and illustrates it with the example in (75).
(75) Jénd naa layu nag
buy 1sg.clfoc van nak
'J'ai acheté un van enfin.'
'Finally, I bought a van.'
This 'finally'-flavor is compatible with (74) as well, i.e., (74) could be interpreted as 'Finally, what I want to ask is:' Another example, which is compatible with the meaning 'finally' or 'at last', from the story Mbëgge ak Coxor, is given in (76).
(76) Màgget mi, bu d:ee li nga wax mën nga ko, def old.person nc.sG-Def.prox if IPFV:PFV this 2SG.s say can 2SG.S 3SG.O do
ko nag.
3SG. 0 NAK
'Old lady, if that what you say, you can do, then (at last) do it.'
(Njaay and B. Ka 2006, p. 18)
Another example, this time in a question, is given in (77), from the story Jëkkër ju amul ub léget 'A husband without a scar':
(77) Kañ la-ñu-y àgg nag?
when CFOC-3PL-IPFV arrive NAK
'When will we finally arrive?'
(Wàdd 2016, p. 12)
(78) shows that nak can also occur in an imperative. Again, it has a 'finally' or 'at last' flavor, as the speaker is impatient with the addressee.
(78) Loo ko tontu? Wax-al, nag! what.2SG 3SG.O answer say-IMP.SG NAK
'What is your answer? Speak (at last)!'
(B. B. Diop 2003, p. 432)

There are some clause-final uses of nak which seem to mark the whole clause as a CT. For example, when nak it occurs after the antecedent clause of a conditional or temporal. An example with a temporal is given in (79).
(79) Ñu tudd-e ko Institut Pasteur. Bi ñu jóg-ee foofu nak, 3PL be.called-APPL 3SG.O institute P. when 1PL leave-PFV there NAK ñëw na-ñu ba kote iniwersité. come clfoc-1pl until side university 'It's called the Pasteur Institute. When one leaves from there, one comes to the side of the university.'

Dakar
In (79) the two speakers are describing different locations on a map. Another example is (80). The nak-marked question in (80) suggests that there are other questions, in this case 'Is it you?', 'Is it me?'.
(80) Du man, du yow, k-an la nak?

NEG.3SG 1sG.EMPH NEG.3SG 2SG.EMPH NC.SG-Q CFOC. 3 SG NAK
'Ce n'est pas moi, ce n'est pas toi, qui est-ce donc?'
'It's not me, it's not you, so who is it then? \({ }^{\text {10 }}\) (J. L. Diouf 2003, p. 61)

\subsection*{9.6 Interim summary}

We have seen that the particles that occur after CTs, de, moom and nak, have slightly different distributions. Their grammatical differences are summarized in Table 9.1.
\begin{tabular}{|l|l|l|l|}
\hline & de & moom & nak \\
\hline on first CT of list? & yes & yes & no \\
once per list? & no & no & yes \\
in constituent questions? & no & yes & yes \\
in fragment questions? & no & no & yes \\
\hline
\end{tabular}

Table 9.1: Distribution of de, moom and nak.

We see in Table 9.1 that de and moom pattern similarly: both can occur multiple times in a list and on the first item of a list and neither of them can occur in fragment questions. The only difference is that moom, but not de can occur in constituent questions.

\footnotetext{
10 J. L. Diouf (2003) uses the spelling nak in this example, but nag in (75). I don't know if this is intentional; he lists nak as a variant of nag.
}

Nak, on the other hand, has some more properties that set it apart from both moom and de. Nak occurs in fragment questions, while the other particles do not. Furthermore, nak is ungrammatical on the first CT of a list and cannot occur multiple times in a list. \({ }^{11}\)

There are also more subtle differences between the particles, that are not related to gramaticality, but to usage. As for the difference between moom and nak in contexts where they are both possible, one consultant has commented that moom and nak have the same meaning, but nak sounds more formal. As for \(d e\), I have found that \(d e\) i) can occur multiple times in a list, but does not usually do so, ii) is preferred on the first or second item of a list and iii) often occurs together with man 'me', while moom i) is more frequent in general and ii) often occurs multiple times in a list. An example in which I asked for all the possible particles is given in (81).
(81) A: Ndax Daba ak Dudu mën na-ñu ñów ci feet b-i?

Q D and D can clfoc-3PL come loc party nc.sG-Def.prox 'Can Daba and Doudou come to the party?'
B: Daba (moom, de, *nak) mën na ñów, waaye Dudu (moom, de, D. MOOM De NAK can clfoc. 3 SG come but D. MOOM de nak) xawma.
nak know.isg.neg
Dabact \(^{\text {can come, but as for } \text { Doudou }_{\text {CT }} \text { I don't know. elicited }}\)
We see in (81) that de and moom are felicitous on either topic, but nak only on the second. An illustration of all three particles in their most preferred position - i.e., de on the first topic, moom on the second and nak on the last - in one context is given in (82). I have constructed this example and it was judged as felicitous by the speakers, though no-one produced all three markers in one utterance.
(82) Moussa (de) a-y yeere la jënd, Hamine (moom) yàpp Moussa de indF-nc.pl clothes 3SG.Cfoc buy Hamine moom meat la jënd, Omar (nak) a-y mango la jënd. 3SG.CFOc buy Omar nak indf-nc.pl mango 3SG.CFOc buy 'Moussa bought clothes, Hamine bought meat and Omar bought mangoes.' elicited

And a corresponding d-tree of (82) is given in (83):

\footnotetext{
11 Another possible division of topic particles along the lines of grammaticality in questions can be found in Ewe. According to Ameka (1991) the difference between the Ewe particles là and dé is that dé can only mark background information in questions, whereas là can mark background information in any clause type. Thus, Wolof has a particle that is ungrammatical questions, de, whereas Ewe has a particle that is only grammatical in questions, dé.
}


\subsection*{9.7 Analysis of the particles}

In this section I present analyses for the particles de, moom and nak in terms of CT conditions. I start with the last particle presented in Section 9.4: nak.

\subsection*{9.7.1 nak}

As discussed in Section 9.4, nak has two properties which sets it apart from de and moom: it cannot occur on the first CT of a list and it can occur in fragment questions. Furthermore, we have seen that nak is preferred on the final item of a list. For illustration, ( \(53-\mathrm{d}\) ) is repeated here as (84).
(84) a. 'When is everybody's birthday?'
b. Musa (*nak) Saywiyé la juddu.
M. NAK January cFoc.3SG be.born 'Moussact is born in January.'
c. Fatou \{nak\}, ci Fééwəriyé la juddu. F. NaK loc February cFoc.3sG be.born 'Fatou \({ }_{\text {CT }}\) is born in February.'
d. Hamine \{nak\}, ci Mars la juddu. H. nak loc March cfoc. 3 sG be.born \({ }^{\prime}\) Hamine \(_{\text {ct }}\) is born in March.'

The fact that nak can occur only once per list makes it similar to an adversative coordinator such as but or however. (Blakemore 1989) observed that and can conjoin multiple proposition, whereas but can only conjoin two. In (85) the first three conjuncts as whole contrast with the one conjunct that is conjoined with but.
(85) Mary votes Labour, Susan votes SDP, Anne votes Tory, but Jane votes for the Communist Party.

English, (Blakemore 1989, p. 32)
A preliminary finding based on elicitation with three speakers goes in this direction. (86) shows that nak is considered odd following the second CT if the final two CTs form
don't form a natural group. In (86) this means that yaay 'mother' and doom 'child' can be considered a natural group, namely close family members, that is contrasted with doxandéém 'foreigner'. In (86), where the two family members are grouped together in the end, nak is accepted both after the second and the final CT. In (86), on the other hand, where the two family members are split up, nak is considered odd after the second CT. The relation between the placement of connectors and particles and natural groups of the conjuncts is a promising direction for future research.
(86) A: 'To whom did everybody give their money?'

B: Ndey Fatou jox na ka b-enn doxandéém. Astu (nak) jox N. F. give clfoc. 3 SG 3 SG.o nc.sG-one foreigner A. NAK give na yaay-am. Amina (nak) jox na ka clfoc.3SG mother-poss.3SG A. nak give clfoc.3SG 3Sg.o
doom-am
child-poss.3SG
\({ }^{\prime}{ }^{\prime}\) Ndeye Fatou \({ }_{C T}\) gave it to a foreigner. \(\underline{A s t o u}_{C T}\) gave it to her mother. Amina \(_{\text {CT }}\) gave it to her child.'
B': ?Astu jox na yaay-am. Ndey Fatou nak jox na
A. give clfoc. 3 SG mother-poss.3sg N. F. give nak clfoc. 3 .
ka b-enn doxandéém. Amina jox na ka doom-am. 3SG.o nc.sG-one foreigner A. give clfoc.3SG 3SG.o child-poss.3SG \({ }^{\prime}\) Astou \(_{C T}\) gave it to her mother. Ndeye Fatou \({ }_{C T}\) gave it to a foreigner. Aminact \(^{\text {gave it to her child.' elicited }}\)

Thus, like but, nak can only occur once per list, as it partitions the answers in the list into two contrasting groups. I propose to analyse nak as a similar element to the Paraguayan Guaraní morpheme =katu (Tonhauser 2012). According to Tonhauser (2012) =katu is a CT-marker that requires an antecedent proposition. The antecedent proposition requirement is illustrated with an example in (87).
(87) a. Ña Guápa=ndaje=ko kuñakarai katupyry.

Doña Guapa=sAY=EMPH woman clever
[...] I-ména=katu=ndaje tekoréi ruvicha.
B3-husband=contrast=say low.life boss
'Doña Guapa \(_{\text {CT }}\) was a clever woman. [...] Her husband \({ }_{C T}\), on the other hand, was said to be the king of lowlifes.'
b. \#Ña Guápa=katu=ndaje=ko kuñakarai katupyry.

Doña Guapa=CONTRAST=SAY=EMPH woman clever
'Doña Guapact was a clever woman.' '
Paraguayan Guaraní (Tonhauser 2012, p. 277)

While ( \(87-\mathrm{a}\) ) is perfectly felicitous, ( \(87-\mathrm{b}\) ), with \(=k a t u\) on the first CT, is not. Therefore, Tonhauser (2012) proposes to define the felicity condition for \(=k a t u\) as in (88), based on the CT-Congruence from Büring (2003, p. 520).
(88) Felicity condition of utterances with \(=k a t u\) : An utterance \(U\) of a sentence containing \(=k a t u\) is felicitous if and only if i) \(U\) maps to a move \(M_{U}\) within a d-tree \(D\) such that \(U\) indicates a contrastive topic strategy around \(M_{U}\) in \(D\) and (ii) there is an answer move \(M_{U}{ }^{\prime}\) that is a left sister to move \(M_{U}\).
(Tonhauser 2012, p. 278)
In the definition in (88), the antecedent requirement is captured by the second clause, (ii): there is an answer move \(M_{U}{ }^{\prime}\) that is a left sister to move \(M_{U}\). This definition can also be used for nak, however, it needs to be modified in order to also account for the occurrence of nak in questions. Recall that nak occurs in fragment questions, an example of which, (61), is repeated here as (89).
(89) Suukar s-i nag? sugar NC.PL-DEF.PROX NAK 'What about sugar?'

CT particles are also used in fragment questions in Mandarin Chinese, as shown in (90) from Constant (2014).
(90) Nǐ ne?

2sG CT
'And what about you?' Mandarin, (Constant 2014, p. 330)

Fragment questions marked with ne are known as 'thematic questions' in the literature on Mandarin Chinese (Constant 2014). Constant cites multiple scholars who have noted the relation between such questions and topics, among them \(\mathrm{B} . \mathrm{Li}(2006, \mathrm{p} .20)\) who proposes that fragments marked with ne are topics. This leads Constant (2014) to formulate the following implication:
(91) Whenever a topic can be marked with topic-marking -ne, it could also license a fragment question with -ne in exactly the same context. (Constant 2014, p. 329)

However, while Mandarin has only one particle, ne, that occurs with CTs, Wolof has three, and nak is the only one of them that can occur in fragment questions. The commonality between fragment questions and the non-first CT is that they both need an antecedent. It is infelicitous to ask 'What about you?' if there hasn't been a previous question about someone else first. Thus, nak always requires an antecedent, whether it is in the form a question or an answer. Thus, in order to account for all utterances with nak, (88) needs to be reformulated as in (92). First of all, it needs to be specified that nak occurs after a topic, and second the move that is a left sister to move \(M_{U}\) does not necessarily have to be an answer move.
(92) Felicity condition of utterances with nak: An utterance \(U\) of a sentence containing nak after a topic is felicitous if and only if i) \(U\) maps to a move \(M_{U}\) within a d-tree \(D\) such that \(U\) indicates a contrastive topic strategy around \(M_{U}\) in \(D\) and (ii) there is a move \(M_{U}{ }^{\prime}\) that is a left sister to move \(M_{U}\).
(based on Tonhauser (2012, p. 278))
As for the sentence-final use of nak, it seems to be divided in two uses: i) nak with a 'finally' or 'at last' flavor and ii) nak marking a sentential CT. Let's start with the first.

According to Constant (2014) the CT-marker -ne in Mandarin Chinese is compatible with the antecedent clause of conditionals and certain types of questions. An example of the former in Wolof is given in (79), repeated here as (93) and the latter in (80), repeated here as (94):
(93) Ñu tudd-e ko Institut Pasteur. Bi ñu jóg-ee foofu nak,
3PL be.called-APPL 3SG.o institute P. when 1PL leave-PFV there NAK
ñëw na-ñu ba kote iniwersité.
come clfoc-1pl until side university
'It's called the Pasteur Institute. When one leaves from there, one comes to the
side of the university.'

Constant (2014) shows that in Mandarin Chinese the CT-particle -ne is often found at the right edge of the antecedent of a conditional, because it implies that there are other hypothetical possibilities. Thus, in (93), nak is licensed because the clause 'when one leaves from there' implies that there is another possible antecedent 'when one doesn't leave from there'. Another environment which licenses a clause-final CT particle according to Constant (2014) is a constituent question such as in (94):
(94) Du man, du yow, k-an la nak?

NEG.3SG 1SG.EMPH NEG.3SG 2SG.EMPH NC.SG-Q CFOC.3SG NAK
'Ce n'est pas moi, ce n'est pas toi, qui est-ce donc?'
'It's not me, it's not you, so who is it then?'
(J. L. Diouf 2003, p. 61)

According to Constant (2014) contrastive topic marking in a constituent question is felicitous in the context of (94). In (94) the speaker has established that there are multiple sub-questions - such as 'Is it me?' and 'Is it you?' - to the question Kan la? 'Who is it?' that do not answer it. Now the speaker returns to the original QUD and is still looking for an answer. A contrastive topic particle is licensed in this case, according to Constant (2014), because the constituent question can be divided into multiple sub-questions.

As for the 'finally'-like use of nak, this seems to point in the same direction as what we have seen before: nak needs an antecedent. This explains why it is infelicitous on the first CT, and why it occurs in fragment questions. It is preferred on the final CT of a list and when it doesn't occur on the final one, it implies that the CTs that follow form a natural group. When one says 'finally' it is implied that other things have happened before. If we look again at (75), repeated here as (95), the implication is that the speaker did not immediately buy a van, but other things preceded the van-buying event.
```

(95) Jénd naa layu nag
buy 1sG.clfoc van nak
'J'ai acheté un van enfin.'
'Finally, I bought a van.'

```

Thus, the fact that it is often translated as 'finally' or 'at last' therefore seems intuitive, although it is hard to then pinpoint the exact discourse condition that nak should have, as 'other propositions need to precede the nak-marked proposition' seems hopelessly overgenerating. Thus, I leave the issue of sentence-final nak as it is for now and hope to be able to return to it in the future.

Finally, some words on the etymology of nak. Munro and Gaye (1997, p. 123) list it as a variant of naka 'how'; they observe that both words are used in a similar situation, for example in a social enquiry, as in (96), and that they can both be translated as 'how'.
(96) a. Naka sa yaay?
how poss.2SG mother 'How is your mother?'
```

b. Sa baay nak?
POSS.2SG father NAK
'How about your father?'

```

As we have seen above, however, the difference between nak and naka in (96) is that they cannot be swapped around, i.e., (97) would be an infelicitous sequence.
```

(97) \#Sa yaay nak? Naka sa baay?
pOSs.2SG mother NAK how pOSs.2SG father

```

Since nak and naka cannot be replaced with each other, I do not consider them variants of the same word. Nonetheless, it is plausible that there is a historic relation between them. Robert (2016) observes that naka 'how' can be decomposed into \(n\) - \(a k\) - \(a\) : the noun class marker \(n\), the comitative preposition \(a k\) 'with' and the copula \(a\). The use of a comitative proposition in a manner question word is explained through the grammaticalization path in (98) posited by Heine and Kuteva (2002).
(98) COMITATIVE >MANNER
(Heine and Kuteva 2002, p. 87)
Heine and Kuteva (2002) provide evidence for this grammaticalization path from several languages, among which German, which uses the comitative preposition mit in a manner construction such as (99).
(99) Er hat es mit Absicht getan. 3SG.m have.PST.3SG 3SG.N with purpose do.pTCP
'He did it on purpose.'
German, (Heine and Kuteva 2002, p. 87)
Thus, it is possible that the particle nak has its origins in the comitative preposition \(a k\), though I do not have enough diachronic Wolof data in order to confirm this hypothesis.

\subsection*{9.7.2 moom}

The felicity condition that is applicable to nak-utterances, is also applicable for moom when one removes the antecedent requirement. Thus, we end up with a 'regular' CT felicity condition (cf. CT-Congruence in (3-a) Büring (2003, p. 520)), as in (100):
(100) Felicity condition of utterances with moom: An utterance \(U\) of a sentence containing moom after a topic is felicitous if and only if \(U\) maps to a move \(M_{U}\) within a d-tree \(D\) such that \(U\) indicates a contrastive topic strategy around \(M_{U}\) in \(D\).

Since, like nak, moom is also felicitous in questions, 'move' in (100) should be understood as both question move and answer move. However, while the antecedent condition for nak explains why it is felicitous in fragment questions, there is nothing in (100) that actually prevents moom from occurring in fragment questions too. Thus, this needs to be posited as a separate restriction, such as in (101).
(101) Restriction on moom: Moom cannot occur in fragment questions.

As has been shown in Chapter 2, moom is also the third singular emphatic pronoun. The particle moom is likely grammaticalized from this pronoun. The pronoun moom is seen in an example in (102):
(102) Moom laa ko jox. 3SG.EMPH CFOC.1sG 3SG.o give
'I gave it to HIM.' (J. L. Diouf 2003, p. 160)
To see how this grammaticalization has taken place, observe that Wolof allows what Torrence (2013a, p. 77) calls "complex left peripheral chains with multiple pronominal type elements". An example from Torrence (2013a), that illustrates this principle with a subject focus, is given in (103).
(103) Xale y-i, ñoom, ñoo dem kër g-a.
child NC.SG-DEF.PROX 3PL.EMPH 3PL.SFOC go house NC.SG-DEF.DIST
'The children, they, it's them who went to the house there.' (Torrence 2013a, p. 77)

In (103) the third plural emphatic pronoun ñoom has the same referent as xale yi the children' and agrees in person and number. I believe that such constructions are the origin of the particle moom. The reason I analyze moom as a particle, rather than simply a pronoun, is that it does not always display person and number agreement with the topic. Consider (104) and (105).
(104) A: 'And what about women, what is their role in all of this?'

B: Soxna y-i moom am na-n ci wàll dëgg-dëgg.
lady nc.pl-def.prox moom have clfoc-3pl loc part really
'Womenct \({ }^{\text {d }}\) definitely have their part in it.'
Sanar
In (104) two men have been talking about what it is like to be a man in Senegalese society. Speaker A then shifts the topic to 'women', to which B replies that women also
have a place in society. The topic soxna yi 'the women' is not followed by an agreeing emphatic pronoun, which would be noom for third plural in this case, but by moom.
(105) Man moom, li ma ci xalaat moo-y... ISG MOOM this 1SG think 3SG.SFOC-IPFV 'What \(\mathrm{I}_{\mathrm{CT}}\) think is...'

In (105) the topic is the emphatic first singular pronoun man 'me'. Again it is followed by an invariant moom. According to Denis Creissels (p.c.) the use of an invariant third singular pronoun after topics is also found in Jóola languages, which, like Wolof, belong to the Atlantic family and are spoken in Senegal.

As for the sentence-final use of moom, recall from Section 9.3 that Torrence (2013a) has found that that right-dislocated topics are possible with emphatic pronouns. (16) is repeated here as (106).
(106) Gis naa *(leen) démb, ñoom.
see Clfocisg 3PL.O yesterday 3PL.EMPH
'I saw them yesterday, them.'
(Torrence 2013a, p. 76)
Thus, sentence-final moom can also be traced back to a right-dislocated pronoun.

\subsection*{9.7.3 de}

So far, I have considered de only as a SFP and proposed to analyze it as an intensifier that can operate on a lexical or pragmatic level. It is not clear how this meaning can be extended to fit the contrastive topic uses we have seen in this chapter. Therefore, I propose that \(d e\) is a polysemous item that has two distinct, but related meanings: i) pragmatic intensifier and ii) contrast marker. \({ }^{12}\)

\footnotetext{
12 A small hint that second-position \(d e\) and sentence-final de are not interpreted as the same lexical item comes from the written sources Kesteloot and Mbodj (1983), Njaay and B. Ka (2006) and Wàdd (2016), in which sentence final de is written as 'de', whereas second-position de is written as 'déy'. An example of this is given in (i).
}
(i) Man déy, duma séy ag boroom u-b légët.

1SG.EMPH DE NEG.isg marry COM owner INDEF-NC.SG scar
'Eh bien moi, je ne me marie pas avec un homme qui a des cicatrices.'
'ICT will not marry a man with a scar!' (Kesteloot and Mbodj 1983)
(i) is from Ndaw si fi nekkoon ne du sey ag boroom ub légët (Kesteloot and Mbodj 1983), another variant of the folk tale Jëkkër ju amul ub légët (Wàdd 2016). In the story, women normally marry men with scars, as almost all men have scars. The protagonist says in (i) that, unlike those women, she will not marry a man with a scar.

These two meanings are related through the verum use of \(d e\). In the disagreement verum utterances \(d e\) intensifies the speaker's certainty to add \(p\) to the CG. The disagreement verum contexts are possible contexts for a speaker to want to intensify their certainty in adding \(p\) to the CG, as in those contexts \(\neg p\) threatens to enter the CG. Thus, \(d e\) implies that there is a contrast between two propositions: \(p\) and \(\neg p\). In second position de then still implies that there is contrast, but the contrast is between two topics rather than two propositions. Compare this to the behavior of the adverb however in English. However can be placed as a sentential connector at the beginning of a sentence, as in (107-a), or after a CT, as in (107-b).
(107) a. The audience listened attentively all through the lecture. However, they didn't at all seem to approve of what they heard. (Ungerer 1988, p. 332)
b. Most of the audience \({ }_{C T}\) listened attentively. One youngster \({ }_{C T}\), however, yawned ostensibly.
(Ungerer 1988, p. 332)
In (107-a) the two sentences answer the QUDs 'What did the audience do during the lecture?' and 'What did the audience think of the lecture?' respectively. The contrast between the events 'the audience listening attentively' and 'the audience not liking what they heard' is marked by the placement of however between the two sentences. In (107-b), however, QUD the 'Who in the audience did what during the lecture?' splits up into 'What did most of the audience do?' and 'What did one youngster do?' 'One youngster' in(107-b), thus is a CT and is followed by however.

According to Lenker (2014) the adverb however, when placed after the subject or a fronted constituent, signals the presence of a CT. Note, however, that it is not obligatory and thus does not mark a CT as such in English, as (107-b) would have also been perfectly fine without it; it is the Rise Fall Rise accent on one youngster in (107-b) that you would get if you pronounced the sentence that marks it as a CT. The placement of however is determined by the delimitation between topic and comment that is already present in the structure of the sentence. As its function is to signal contrast (Lenker 2014), the meaning of however is simply compatible with a CT when placed after a CT, or with two contrasting predicates when placed as a linker in initial position. As we have seen, topics in Wolof are also already signaled by a pause, left dislocation and a resumptive pronoun (Cissé 2008; Rialland and Robert 2001), marking them with \(d e\) is just an additional cue for CTs. The contrast that de signals is that the answer it occurs in in the d-tree go towards a different directions towards answering the QUD than the other answers in the d-tree.

Variants of the particle \(d e\) are also found in other Atlantic languages and in languages of the Mande family. In Sereer de, which according to Merrill (2018a, p. 26) is borrowed from Wolof, is a "particle that intensifies or topicalizes whatever precedes". He gives the examples in (108).
(108) a. Mi de...

1SG DE
'As for me...'
b. A ñaay-a de

3SG be.spicy-PFV DE
'It's really spicy!'
c. A gar-a de!

3SG come-PFV DE
'It's coming!' \({ }^{13}\)
Sereer, (Merrill 2018a, p. 26)
Thus, \(d e\) in Sereer seems to be very similar in use as \(d e\) in Wolof. While a variant of the particle de is also present in the Mande languages Bambara, Malinke and Dioula (Creissels 1979; Dumestre 2003), it has only been observed in sentence-final position in those languages. We have seen in Chapter 7 that Bambara \(d \varepsilon\) has the same uses as Wolof sentence-final de. A possible intermediate stage between second position and sentence-final use, comes from dé in Bambara following nouns when they occur on their own, such as (109).
(109) Kàraməgə d \(\varepsilon\) ! master DE 'Ah! Master!'

Bambara (Dumestre 2003, p. 322).
It remains to be seen which languages that have \(d e\)-like particles also allow \(d e\) in second position.

Finally, since moom and de have similar felicity conditions, the felicity condition for de can be based on the one for moom in (100). The difference in grammaticality between de and moom, is that de can never occur in questions, while moom can in certain questions. Therefore, I propose to change 'move' in (100) to 'answer', as in (110).
(110) Felicity condition of utterances with \(d e\) : An answer \(A\) containing \(d e\) after a topic is felicitous if and only if \(A\) maps to an answer \(M_{A}\) within a d-tree \(D\) such that \(A\) indicates a contrastive topic strategy around \(M_{A}\) in \(D\).

\footnotetext{
13 Glosses mine.
}

\subsection*{9.8 Discussion}

In this section I show further evidence that topics marked with the particles de, moom and nak should be analyzed as contrastive topics. I then show some examples of nominal frame topics in Wolof which are not resumed by a pronoun. Finally, I discuss the order of topic and focus in Wolof.

\subsection*{9.8.1 Particle-marked topics are CTs}

As mentioned in Section 9.4, the particles de, moom and nak are not obligatory in the marking of contrastive topics. Hence, I do not consider the particles contrastive topic markers. Compare this to languages with 'real' topic markers, such as Korean, which always use the topic morpheme whenever a constituent is topicalized. In the Korean example in (111) we see that both CTs, 'Joe' and 'Sue', are marked with the suffix nun, whereas the data in Section 9.4 have shown that in Wolof it is rarely the case that both CTs are marked with a particle.
(111) A: ‘Who did what?'

B: Joe-nun ca-ko Sue-nun nol-assta.
J.-ct sleep-and S.ct play-pst
'Joect slept and Suect played.' Korean, (Büring 2016, p. 5)
Nonetheless, I do claim that whenever either of the particles occurs after a topic, this topic is contrastive. An initial hint that points in the direction of this claim comes from the fact that several consultants expressed the intuition that 'if you add de or moom after someone, it means that someone else did something else'. In this section I provide additional evidence by showing that the particles do not occur with familiar topics. First, I show some natural examples of non-contrastive topic in which there is no particle. I then provide an elicited example that shows that a marked topic in such contexts is infelicitous.

The example in (112), in which the prepositional phrase ca àll ba is left-dislocated and functions as a frame-setting topic, there is no particle following the topic.
(112) Ca àll \(\mathrm{b}-\mathrm{a}\), jinne j -a dégg ko.

LOC.DIST forest NC.SG-DEF.dIST djinn NC.SG-DEf.DIST hear 3 SG. O
'In the forest, the djinn heard her.'
(Wàdd 2016, p. 6)
In (113) the topic man 'me', a familiar topic, is not marked with a particle. The context
where (113) is taken from is such that the whole conversation is about \(B\), so there is no other person that is contrasted with.
(113) A: Turist nga xanaa?
tourist CFOC.2SG Q
'Est-ce que, par hasard, tu es touriste?'
'Are you by any chance a tourist?'
B: Déédéét, man, du-ma turist, koperay laa.
no ISG.EMPH NEG-ISG tourist aid.worker CFOC.ISG
'Non, moi, je suis pas touriste, je suis coopérant.'
'No, I'm not a tourist, I'm an aid worker.' (J. L. Diouf and Yaguello 1991, p. 40)
(114) is an example of a non-contrastive topic from Rialland and Robert (2001). While the sentence is given out of context, the follow-up with waaye 'but' gives the impression that Moodu Mbakke and Mosse are not actually tama players, even though people usually refer to them as such. This implies that there is no topic change after waaye.
(114) (Aa! Moodu Mbàkke-ek Muse) (ci tama-kat y-i la-ñu
interj M. M.-COM M. LOC tama-AGT NC.PL-DEF.PROX CFOC-3PL
leen boole waaye...
3PL.O put.together but
'(Ah! Moodu Mbakke and Mosse) (people say they're like tama players but...' (lit: 'Ah! Moodu Mbakke and Mosse, it's among tama players that people put them, but... \({ }^{14}\)
(Rialland and Robert 2001, p. 919)
The example in (115) first appeared as (65) in order to illustrate the co-occurrence of moom and nak. Boroom jaasi 'the one with the machete' is first contrasted with 'the one with the arrows' and 'the one with the wrapper'. Thus it is introduced as a CT, and marked with nak and moom. Now, observe that later in the discourse boroom jaasi is resumed as a continuing topic with kooku 'that person'. Crucially, kooku is no longer marked with any particle.
(115) Bu fekk-ee boroom jaasi nak moom dafa jàng-i xam-xam if.3SG find-pFV owner machete NAK MOOM VFOC.3SG learn-and knowledge boo xam ni jaasi da ko-y dal di dóór [...] NC.SG-REL.2SG know COMP machete VFOC.3SG 3SG.O-IPFV stop IPFV hit kooku tamit mus na. that.person also be.shrewd CLFOC.3sG

\footnotetext{
14 A 'tama' is also known as a 'talking drum' in English, see: https://en.wikipedia.org/wiki/Talking_drum
}
'If the one with the machete has gone and gained the knowledge to stop hitting with it [...] that guy is also shrewd.' Ndem

Moreover, consider the following minimal pairs in (116) with the adverb tey 'today' from J. L. Diouf's dictionary. According to Cissé (2008) the canonical position of tey is clause-finally.
(116) a. Ndaanaam y-épp dina-ñu daje Sorano tey.
posh.man NC.PL-all fut-3PL meet S. today
'Tous les hommes B.C.B.G. se retrouveront au "Theatre national Daniel Sorano" aujourd'hui.'
'All the posh men will be at the Théatre National Daniel Sorano today.' \({ }^{15}\) canonical position (J. L. Diouf 2003, p. 170)
b. Tey, faar-u xar y-u ñu wàjj laa buun. today cutlet-gen sheep nc.SG-Rel 3PL.s grill cFoc.1sG crave 'Aujourd'hui, j'ai une forte envie de manger des côtelettes de mouton grillées.'
'Today, I'm craving grilled mutton chops.'
left dislocation, no particle (J. L. Diouf 2003, p. 32)
c. Tey moom, dama lott.
today моом VFoc.1sg be.exhausted
'Aujourd'hui particulierement, je suis exténué.'
'Today in particular, I'm exhausted.'
left dislocation, particle (J. L. Diouf 2003, p. 142)
(116-a) is an example with tey 'today' in its canonical position. (116-b) is an example in which tey has been left-dislocated and serves as a frame-setting topic. (116-c) is an example in which tey has been left-dislocated and followed by the particle moom. J. L. Diouf translates tey moom in (116-c) as 'today in particular', suggesting that other days are different.

Thus, the examples presented in this section show non-contrastive topics not marked with particles, and the examples in Section 9.4 showed contrastive topics marked with particles. I therefore predict that de, moom and nak should be infelicitous with non-contrastive topics. This prediction is indeed borne out for the particle \(d e\), and remains to be tested with the other two. The examples in (117) and (118) are elicited examples showing that particle-marked familiar topics are infelicitous. (117) is a short text in which the aboutness topic introduced in the first sentence is 'Mamadou'. All
consecutive sentences are realized in the narrative form, i.e., with no verbal conjugation, and no repetition of the topic.
(117) a. Mamadou dem-oon na Marok, ca kapitaal M. go-pst ClFOc.3Sg Morocco loc.dist capital
b-a.
NC.SG-DEF.DIST
'Mamadou went to Morocco, to the capital.'
b. Mu jënd-oon fa b-enn saak.

3SG.s buy-PST there.DIST NC.SG-one handbag
'He bought a handbag there.'
c. Xam-ul-uwoon jabbar-am soxla-wul saak. know-NEG.3SG-PST wife-Poss.3SG need-NEG.3SG handbag 'He didn't know his wife didn't need a handbag.'

In the version in (118), I explicitly asked people if they can repeat the familiar topic 'Mamadou' as an overt noun in the final sentence, as in (118).
(118) a. Mamadou dem-oon na Marok, ca kapital ba. Mu jënd-oon fa benn saak. 'Mamadou went to Morocco, to the capital. He bought a handbag there.'
b. Mamadou (\#de) xam-ul-uwoon jabbar-am soxla-wul M. DE know-NEG.3SG-PST wife-Poss.3SG need-NEG.3SG saak. handbag 'Mamadou didn't know his wife didn't need a handbag.'

While the version in (117) was preferred, repeating 'Mamadou' in (118) was possible, but not if it was marked with \(d e\). This is in line with the analysis that \(d e\)-marked topics are contrastive, as (118) is not a suitable environment for a contrastive topic, since there are no other people under discussion.

\subsection*{9.8.2 Nominal frame topics}

In this section I discuss a special type of topics, namely nominal topics which are not an argument of the verb and are thus not resumed by a pronoun. These topics are sometimes referred to as 'double subject constructions' (Roberts 2011) and are frequent in Mandarin Chinese, Lahu and Japanese (C. N. Li and Thompson 1976b). An example from Japanese is given in (119).
(119) Gakoo-wa buku-ga isogasi-kat-ta. school-wA I-NOM busy-pST
'School, I was busy.' Japanese, (C. N. Li and Thompson 1976b, p. 462)

Topics such as (119) are characterized by the fact that the topic is not an argument of the verb, but rather seems to function like a frame-setting topic in that it delimits the frame in which the following utterance is to be interpreted. Hence, the term 'double subject' might be a bit misleading, and I therefore use the term 'nominal frame topics' instead.

Contrary to what has been reported far in Cissé (2008), Martinović (2015b), Rialland and Robert (2001), Russell (2006), and Torrence (2013a), my data clearly show that not every nominal topic in Wolof needs to be resumed by a pronoun, although such occurrences are rare. That is, Wolof, too, has nominal frame topics. A natural example is given in (120). I use a colon after the topic in the English translation, as I feel this is the most natural way to represent these topics in English.
(120) Sëy nak, Awa moom, yàgg na-ñu wax ne Awa moom
marriage NAK Eve mOOM last.long ClFOc-3Pl say comp Eve moom
moo ndey jëkkër.
SFOC.3SG mother husband
'Marriage: it has long been said that the first wife \({ }_{c T}\) is like a mother to the husband. \({ }^{16}\)

Sanar

In (120) the topic sëy 'marriage' is left-dislocated and not resumed by any pronoun (it would have to be \(k o\) ). The topic is marked with the particle nak. The sentence furthermore contains the contrastive topic 'Awa' - marked with moom - since the role of the first was was compared to that of the 'newcomer'. Another natural example is shown in (121).
(121) Afeer y-i wujjé de moom, jamm ak salaam rekk. business NC.PL-REL.DEF.PROX compete DE MOOM peace and peace only 'Co-wifehood: nothing but peace and harmony.' \({ }^{17}\) Ndar

Note that (121) doesn't contain a verb, but rather seems a juxtaposition of a topic and an unmarked focus. Constructions such as (121), which only contain a topic and a comment, are referred to by Ameka (2010) as 'topic comment only constructions'.

\footnotetext{
16 The first wife in a polygynous marriage is referred to as Awa, a cognate of the English name Eve, the first woman in Abrahamic religions.
17 The verb wujjé literally means 'compete', but is often used to refer to co-wifehood.
}

According to Ameka (2010) such constructions are frequent in Kwa languages; for Wolof, on the other hand, they haven't been described yet. (120) and (121) are the only examples of a nominal topic with a non-resumed pronoun I have found in my recordings. I constructed (122) and it was judged felicitous with every possible particle.
(122) Fruit y-i moom/de/ nak/, banaan laa bëgg.
fruit nc.pl-def.prox moom de nak banana cfoc.isg love 'Fruit: I like bananas.'

Thus, in the examples in (120)-(122), the topic is marked by a particle, but is not contrastive, rather it seems to be a non-adverbial frame topic. Krifka (2008) points out the similarities between contrastive topics and frame setters: in constructions with frame-setters the frame topic is contrasted with alternative frames. When one frame is made explicit it is contrasted with other potential implicit frames.

Nevertheless, we have seen in the previous section that usually adverbial and prepositional frame topics are not marked with a particle, such as the prepositional frame topic in (112), repeated here as (123).
(123) \(C\)-a àl \(b-a\), jinne \(j\)-a dégg ko. loc-dist forest nc.sG-def.dist djinn nc.sG-Def.dist hear 3SG.O 'In the forest, the djinn heard her.'
(Wàdd 2016, p. 6)
One difference between prototypical frame setters such as (123) and the nominal frame setters shown in this section, is that prototypical frame setters are adverbs or prepositional phrases. I suspect that the fact that nouns are not prototypical frames plays a role in the licensing of the particles. \({ }^{18}\)

The details of when clitic resumption occurs in Wolof and how that interacts with the particles de, moom and nak are left for future research.

\footnotetext{
18 Compare also (123) with (12), repeated here as (i). In (i) the location kër ga 'the house' is not part of a prepositional phrase - unlike àll ba in (123), which is preceded by the preposition \(c a\). In (i) the resumptive locative clitic \(f a\) is obligatory according to Torrence (2013a).
}
(i) Kër g-a, gis naa *(fa) Gàllaay. house nc.sG-def.dist see clfoc.3sG there G.
'The house, I saw Gallaay there.'
(Torrence 2013a, p. 76)
Thus, there seems to be a difference in the behavior of nominal topics and prepositional topics.

\subsection*{9.8.3 The order of topic and focus}

This section examines the order of (contrastive) topics and foci in Wolof. In most languages, topics precede foci. In some languages, like German, contrastive topics behave exactly the same as all other topics in that respect: they always precede foci (Büring 1997). In other languages, such as Ewe (Ameka 2010), English (Jackendoff 1972), Dutch (Neeleman and Van de Koot 2008) and Brazilian Portuguese (Assmann 2019), however, contrastive topics can follow foci. Ewe has the order shown in (124), based on Ameka (2010, p. 142). An example of this order is given in (124).
(124) Frame topic \(>\) Focus \(>\) Contrastive topic
(125) le nyateфé me lá, dzódágbe-é nye ya me-vá loc truth containing.region tor Monday-AFOC 1SG as.for 1sG-come 'In truth, \(\underline{I}_{\text {ст }}\) came on MONDAY.' Ewe, (Ameka 2010, p. 143)

In (125) the context was that someone thought that the speaker arrived in the village on the same day as someone else, to which the speaker replied (125). Thus, nye ' \(I\) ' is the contrastive topic and it is marked by the particle ya. Le nyateфé me 'in truth' is a frame topic and marked by the particle lá. In between those two topic is the focus dzódágbe 'Monday', which is marked with the suffix -é.

As for Wolof, example (126) from Russell (2006) shows that in principle, a topic can come after a focus, although it is not specified what type of topic (126) is.
(126) Maryam ag Xhadi ceeb b-i ñoo ko lekk.

Maryam and Xhadi rice nc.sG-def.prox 3Pl.sfoc eat 3 SG.
'[Maryam and Xhadi \(]_{i}\), the rice \({ }_{j}\), THEY \(_{i}\) ate \(\mathrm{it}_{j}\) ' (Russell 2006, p. 130)
'Maryam and Xhadi' are the focus of (126), which can be seen by the form of the verbal conjugation: \(\tilde{n} o o\) for third plural subject focus. In between the focus and the verbal conjugation is the noun ceeb bi 'the rice', which is later resumed by the clitic \(k o\) ' it ' and is therefore a topic. However, while this order is possible with a subject focus and a topicalized object, the other way around - with an object focus and topicalized subject is not possible, as shown in (127).
(127) *Fas w-i la moom jënd. horse NC.SG-DEF.PROX CFOC.3SG 3SG.EMPH buy Intended: 'As for her/him, s/he bought THE HORSE.' (Russell 2006, p. 131)

The reason that (127) is ungrammatical while (126) isn't, is because in (127), the
intervening topic moom 's/he' breaks up the verb jënd 'buy' and the verbal conjugation la, whereas in (126) they remain intact. In (128) we see that the ungrammatically of (127) is not a restriction on subject topics or pronominal topics, but on any intervening element, as it also happens with an intervening prepositional phrase such as ci marse bi 'at the market' in (128).
(128) a. Ci marse bi, lan la fa Maryam jënd? loc market NC.sG-def.prox NC.SG-Q cFoc.3sG there M. buy
b. *Lan ci marse bi la fa Maryam jend? nc.sG-Q loc market nc.sG-def.prox cfoc.3sG there M. buy 'At the market, what did Maryam buy there?' (Russell 2006, p. 136)

I did not explore this issue in detail. However, what I can show is that the order of topic and focus in Wolof, unlike in other languages such as Ewe, is unrelated to the contrastiveness of the topic. The example in (129) was constructed with a particle-marked contrastive topic coming in between the verb togg 'cook' and the verbal conjugation la. This example was judged as ungrammatical. This shows that the restriction of not being allowed to break up the verbal complex holds for all types of topics.
 elicited

Thus, foci in Wolof can precede topics, as long as the focus is a subject, as this is the only configuration in which a topic can follow a focus without disrupting the bond between the verb and its conjugation. Whether a topic precedes or follows a focus is unrelated to whether it is contrastive.

\subsection*{9.9 Summary}

Topics in Wolof are marked with left- or right-dislocation, clitic resumption, a pause between the topic and the rest of the sentence. In this chapter I have described and analyzed contrastive topics in Wolof. I have shown that contrastive topics can additionally be marked with the particles \(d e\), moom and nak. Contrastive topics can, but do not have to be, marked with one of the particles. Furthermore, the particles do not occur with non-contrastive topics. The particles also show subtle differences among them. I have shown that the felicity conditions of all particle-marked CTs
can be captured using variants of the CT-Congruence as proposed by Büring (2003). This adds to the understanding of the variation found in the marking of contrastive topics cross-linguistically. The felicity conditions of a moom-utterance are the same as described the CT-Congruence proposed by Büring (2003), as in (130), except that moom has an additional restriction that it cannot occur in fragment questions.
(130) Felicity condition of utterances with moom: An utterance \(U\) containing a contrastive topic can map onto a move \(M_{U}\) within a d-tree \(D\) only if \(U\) indicates a strategy around \(M_{U}\) in \(D\).
(same as CT-Congruence in Büring (2003, p. 520))
De only occurs in answers, never in questions, thus the move described in (130) is an answer move, as in (131).
(131) Felicity condition of utterances with \(d e\) : An answer \(A\) containing de after a topic is felicitous if and only if \(A\) maps to an answer \(M_{A}\) within a d-tree \(D\) such that \(A\) indicates a contrastive topic strategy around \(M_{A}\) in \(D\).

Nak has an additional antecedent requirement, similarly to \(=k a t u\) Paraguayan Guaraní (Tonhauser 2012). This requirement can be captured as 'there is a move \(M_{u}\) ' that is a left sister to move \(M_{u} .{ }^{\prime}\)
(132) Felicity condition of utterances with nak: An utterance \(U\) of a sentence containing nak after a topic is felicitous if and only if i) \(U\) maps to a move \(M_{U}\) within a d-tree \(D\) such that \(U\) indicates a contrastive topic strategy around \(M_{U}\) in \(D\) and (ii) there is a move \(M_{U}{ }^{\prime}\) that is a left sister to move \(M_{U}\). (based on Tonhauser (2012, p. 278))

I have also shown that the order of topic and focus in Wolof does not depend on whether the topic is contrastive or not, unlike some other languages, such as Ewe. Finally, I have shown that Wolof has nominal frame topics, in which case the topic is not an argument of the verb and not resumed by a pronoun. These constructions are common in Mandarin Chinese, for example, but had so far not been described for Wolof. In the next Chapter I discuss the remaining particles that can occur in second position: the Group II particles gaa, kay, daal and kat.

\section*{10 Second position particles II: Do the same thing regardless of position}

\subsection*{10.1 Introduction}

In the previous chapter I have shown that the particles de, moom and nak can occur after contrastive topics. Now, consider the difference between de and kat in second position in the examples in (1):
(1) a. Moussa de/ \#kat a-y yeere la jënd.
M. DE KAT INDF-NC.PL clothing CFOC.3SG buy 'Moussact bought clothes.'
elicited
b. Moom (kat), bëgg-u:l ceeb (kat)! 3SG.EMPH KAT love-NEG:3SG rice Kat
'This guy doesn't like rice! (Can you believe it?)' (M. Seck, p.c.)
In (1-b) we see that kat can occur in either position in the same context: the speaker is surprised that their guest does not like rice, as this is such a common food. This is exactly the same context that licenses kat in sentence-final position, as shown in Chapter 6. In other words, there is no pragmatic difference correlated with the placement of kat in either second or sentence-final position. This is not the case for \(d e\), where the sentence final usage is felicitous with verum and surprise, as was shown in Chapters 4-7, while the second position usage signals the presence of a CT, as was shown in Chapter 9. Example (1-a), which is a context for a CT, but doesn't contain surprise or disagreement, shows that \(d e\) is felicitous in second position, while kat isn't.

In this chapter I will focus on particles like kat, which can be placed following a topic or following a clause, without any change to their semantic contribution. In these cases the topic does not have to be contrastive. Where the particles in Chapter 9 were not felicitous after non-contrastive topics, the particles discussed in this chapter are. This is thus another difference between the particles kat and de, which in Chapter 4 seemed to both pattern the same way by occurring in disagreement verum utterances. The
particles that belong to the same group as kat are daal, kay and gaa. \({ }^{1}\) I will refer to these particles as Group II.

In the next section I show data with these particles. The data show that the particles i) have the same meaning contribution in second position as in sentence-final position and that therefore ii) the topic type is not a factor in their licensing. To illustrate the difference between contrastive and non-contrastive topics, consider again the Ewe sentence (125) from Chapter 9 which showed the co-occurrence of a contrastive topic and a frame topic. \({ }^{2}\)
(2) le nyateфé me lá, dzódágbe-é nye ya me-vá

Loc truth containing.region top Monday-AFOC 1SG as.for 1SG-come
'Actually (lit: 'in truth'), \(\mathrm{I}_{\mathrm{CT}}\) came on Monday.' Ewe, (Ameka 2010, p. 143)
In Ewe, the first position is for frame topics, whereas the position immediately following the focus is for contrastive topics. Furthermore, they are marked by different particles. Contrastive topics are marked with ya and non-contrastive topics with lá. Consider also the Wolof sentence (21-b), from Torrence (2013a), repeated here as (3), which shows that gaa-marked and nak-marked topics behave differently.
(3) a. *Muus y-i nag, xaj b-i gaa, dàq na leen. cat nc.sG-def.Prox nak dog nc.sG-def.Prox gat chase clfoc-3pl 3SG.O
b. Xaj b-i gaa, muus y-i nag, dàq na leen. dog nc.sG-def.prox gat cat nc.sg-def.prox nak chase clfoc-3pl 3sg.o 'The dog indeed, as for the cats, it chased them.' (Torrence 2013a, p. 90)

I will show that contrastive topics are marked by different particles than non-contrastive topics, which might explain the asymmetry seen in (3). In Section 10.3 I show that if the context is such that it licenses both verum and contrastive topic, the particle kay can occur in second position and that kat can occur after contrastive topics in surprise contexts. In Section 10.4 I compare the Group I and Group II particles to other particles cross-linguistically.

\footnotetext{
1 And probably also moos, though my data on moos is limited, see Chapter 4 for all examples of moos in one place.
2 As mentioned in Chapter 9, for my purposes here the only relevant difference is between contrastive and non-contrastive topics. I will sometimes refer to non-contrastive topics as familiar topics in this chapter.
}

\subsection*{10.2 Data with Group II particles}

\subsection*{10.2.1 Infelicity in list contexts}

When I was eliciting contrastive topics, speakers have commented that de and moom are the same, but kay and kat are different from both of them. Kay and kat were not judged felicitous in the contrastive topic contexts, be it in questions, as shown in (4), or in answers, as shown in (5).
(4) Jën bi moom/ \#kay/ \#kat, l-an la indi? fish nC.SG-Def.prox moom kay kat nc.sg-Q Cfoc.3sg bring Intended: 'And the fish, what did they bring?'
(5) A: ‘When is everybody's birthday?'

B: \#Fatou kay/ kat 3 Sanwiyé moo-y anniwerseer.
F. KAY KAT 3 January 3SG.SFOC-IPFV birthday
'Intended: Fatou's birthday is on the third of January.'
I claim that the reasons kay and kat are infelicitous in these contexts are because they trigger the same presupposition about their anchor proposition in their sentence-final and in their second-position use and the contexts for (4) and (5) do not licence verum marking. Due to time constraints I didn't include the particles gaa and daal in my CT survey, so this remains for future research, but I will show in the following sections that at least these two particles can occur with familiar topics and in those cases have the same semantic contribution as in other positions.

\subsection*{10.2.2 Examples with kay}

While kay is infelicitous in a CT context such as (4) and (5), it is felicitous following the topic in the verum contexts that we have seen in Chapter 4 . An example is given in (6).
(6) A: 'Fatou looks pretty today.'

B: Fatou kay rafet na!
F. Kay be.pretty clfoc.3sG
'Fatou looks pretty indeed!' elicited
The examples in (7) and (8) are naturally occurring examples that show the contrast between kay and the contrastive topic particles.
(7) A: A, kii de, buur-u tubaab la-y nirool INTRJ NC.SG-DEM.PROX DE king-GEN white.person CFOC.3SG-IPFV resemble sax.
even
'Ah, this guy, he even looks like a white king.'
B: A, kii kañ, tubaab rekk la mën-a d-oon. INTRJ NC.SG-DEM.PROX KAN white.person only 3SG.CFOC can-VL IPFV-PST 'Ah, this guy indeed, he can only be a white guy.'

Dakar
In (7) kii 'this guy' is marked with de when it is introduced by Speaker A. The speakers had been discussing other pictures, and now turn to a picture which apparently looks like an old white guy, thus kii in (7) is a CT. Speaker B agrees with A's judgement and now marks the same topic with the particle kañ, which, as shown in Chapter 4, is a variant of kay. Thus, kañ in (8) is used after the topic has already been introduced. We have seen in Chapter 9 that de is not compatible with familiar topics. Furthermore, kañ in (7) marks the speaker's agreement with the previous proposition 'this is a white guy', as expected from the analysis of kay as an agreement particle in Chapter 4. A similar pattern is seen in (8). In (8), the speakers turn to a tree in the picture after having discussed multiple other objects.
A: Garab g-i moom mën-oo c-a gis l-eneen. tree NC.SG-DEF.PROX MOOM can-NEG.2SG LOC-DIST see NC.SG-other 'In the tree you cannot see anything else.'
B: Garab g-i? Garab g-i kaaayyy yéém-e
tree NC.SG-DEF.PROX tree NC.SG-DEF.PROX KAY astonish-APPL na.
CLFOC.3SG
'The tree? The tree indeed, it is very astonishing.'
Dakar

In (8) Speaker A introduces the topic garab gi 'the tree' and marks it with moom. Since they were discussing other objects in the picture before, this topic is contrastive. All other objects on the picture looked like something else: the grass looked like a moustache, the man like a nose. But the tree only looks like a tree according to Speaker A. Speaker B marks the same topic, garab gi 'the tree', which is now a continuing topic, with kay. \({ }^{3}\) What is different in (8) from (7), however, is that in (8) the proposition 'the tree is astonishing' is not given in the discourse, but is a conversational implicature from 'you cannot see anything else in the tree'. Since it is 'weird' in this context that

3 The word kay is lengthened. Rialland and Robert (2001) refer to this kind of vowel elongation as 'local emphasis', but the exact pragmatics of this type of emphasis are still to be researched.
the tree doesn't look like anything else, as every other object was not what it seemed. We have seen in Chapter 4 that verum can target an implicature.

Example (9) is from Faye's (2012) course book.
(9) A: Mbaa du danga sibiru?

Q-NEG.3SG VFOc.2sG malaria
'You don't have malaria, do you?'
B: Sama bopp dafa-y metti, sama yaram tàng, te cér poss.1sg head vfoc. 3 SG-IPFV hurt poss.1sg body hot and limb y-épp di bañ.
nc.pl-all IPFV refuse
'My head hurts, my body is hot and all my limbs are refusing to move.'
A: Aa! Loolu kay sibiru la war-a d-oon, walla girip.
INTRJ that KAY malaria CFOC.3SG must-vL IPFV-PST, or flu
'Ah! That MUST be malaria, or the flu.' (Faye 2012, p. 138)
In (9) kay in A's second utterance targets her previous utterance, in which she asked 'You don't have malaria, do you?' B then tells her his symptoms, which she takes as evidence for the proposition ' \(B\) has malaria' and asserts 'That must be malaria'. The topic loolu 'that' is followed by the particle kay. In (10), which is from J. L. Diouf and Yaguello's (1991) course book, we see the use of the particles de, nak, moom and kay in second position. The conversation in (10) takes place at a market.
(10) A: Dañu la nuyu-si, di wut-aale sippax ak yoxos.

VFOC.1PL 2SG.o greet-VEN IPFV search-AsS shrimp and oyster
'We have come to greet you while at the same time search for some shrimps and oysters.'
B: Yoxos de dafa jafe jamano j-i. oyster de vfoc. 3 sG be.difficult period nc.sG-def.prox 'Oysters \({ }_{\text {CT }}\) are difficult at this time.'
A: Sippax nak?
shrimp Naк
'What about shrimps?'
B: Sippax a tane; ñetti tééméér la-ñu-y jaay-e kilo shrimp sfoc be.better three hundred cFoc-3PL-IPFV sell-APPL kilo b-i fi ñu tollu. NC.SG-DEf.Prox here 1PL arrive 'Shrimps are better; they are sold for 300 dërëm ( 1500 CFA ) per kilo nowadays.'

A: Ñetti tééméér kay yomb na; seer-ul.
three hundred кay be.cheap clfoc.3SG be.expensive-NEG.3SG ' 1500 CFA is indeed cheap, it's not expensive'.'
B: Yoxos, moom, duusen téeméér la-ñu-y wax.
oyster \(_{\text {CT }}\) моом dozen hundred CFOC-3PL-IPFv say
'Oysters, however, they ask 100 dërëm (500CFA) for a dozen of them.'
(J. L. Diouf and Yaguello 1991, p. 128)

Yoxos 'oyster' is marked as a CT with de and moom respectively two times in (10), both times they are compared with sippax 'shrimp'. Sippax 'shrimp' is marked with nak in the fragment question sippax nak? 'and what about shrimp?'. The topic that is marked with kay is ñetti tééméer 'three hundred', which is the focus in the previous utterance. It is implied by B that three hundred dërëm is cheap for shrimps, as can be seen from the previous sentence 'shrimps are better'. Speaker A agrees with that and utters ñetti tééméér kay yomb na 'three hundred (dërëm) is indeed cheap'. Thus, kay agrees here with an implied proposition and attaches to the thematic topic of the sentence.

\subsection*{10.2.3 Examples with \(k a t\)}

First, consider example (11), which shows that second-position kat, like sentence-final \(k a t\) is felicitous in a disagreement verum context.
(11) A: Maryama dem na ba pare.

M go clfoc.3sG until be.ready
'Maryama left already.'
B: Moom kat dem-ag-ul!
3SG.EMPH Kat leave-yet-neg.3SG
'She didn't leave yet!'
(H. Wane, p.c.)

The examples in (12) and (13) are natural examples that show second-position kat being used with disagreement verum.
(12) A: Nga dugg ci biir armeel y-i.

2SG.OPT enter loc inside cemetery nc.pl-def.prox 'You should go inside the cemetery.'
B: Lu ma-y wut-i ci armeel y-i ër what 1SG.s-IPFV search-AND Loc cemetery nc.pl-Def.prox hour
y-i? Waxtu w-ii \(\quad\) kat du-ma ci dem ci
NC.PL-DEF.PROx hour \(\quad\) NC.PL-DEM.PROX KAT NEG-1SG LOC go LOC
armeel y-i! \(\quad\) Armeel, waxtu w-iii?!'
cemetery nC.PL-DEF.PROx cemetery hour NC.PL-DEM.PROx
'What am I looking for in a cemetery at this time of day? At this hour, I
will NOT go into any cemetery! A cemetery, at THIS hour?!'4 Dakar

B's utterance in (12) is a disagreement verum sentence. Speaker B disagrees with the proposition 'Speaker B should go to the cemetery'. Kat attaches to the right edge of the thematic topic waxtu wii 'this hour', which in the previous sentence was introduced by its synonym ër 'hour'.

In (13) Speaker B disagrees with the proposition 'there is a house', which was uttered by A. In B's utterance kat follows the topic fii 'right here', which although it is not given in the discourse, is contextually given. Fii 'here' in (13) does not contrast with any other location, as there is no other location under discussion.
(13) A: Am na kër g-u nga-y njëkk jot ci sa
have CLFOC.3SG house NC.SG-REL 2SG.S-IPFV first arrive LOC POSS.2SG càmooñ.
left
'There is a house which is the first one on your left.'
B: A-a. Fii kat, am-ul kër.
nuh-uh here.prox кat have-NEG.3SG house
'Nuh-uh. Here, there ISN'T any house.'
Dakar

The example in (14) shows kat with surprise. Note that kat appears in an embedded clause.
(14) Bi ma fi ñëw-ee, fekk-u-ma fi k-enn, laa when 1SG.s here come-clfoc find-NEG-1SG here NC.sG-one 1SG.CFOC
war-oon-a xam ne [k-ii kat, du nit]. must-PST-VL know COMP NC-SG-DEM.PROX KAT NEG.3SG person 'The fact that when I came here, I didn't find anybody, should have told me that this guy is not human.'
(Wàdd 2016, p. 29)
The context for (14) is that the speaker has just found out that her husband turned out to be a djinn and not a human. Now, she tries to escape from him and tells herself (14). The topic of the embedded clause kii 'this guy' refers to the djinn. The topic is marked

\footnotetext{
4 The vowel in wii 'this' is lengthened. This is the same principle of local emphasis as described in footnote 3. I translated it as a focal accent on this in English.
}
with kat, as the speaker expresses surprise. Compare (14) with (15), which shows that other particles that express surprise, can only occur in matrix clauses:
(15)
a. Ndekete (yóó) sàcc na
tééré b -i!
prtL yoo steal clfoc.3sG book nc-SG-Dem.prox
'(I didn't know that) he stole the book!'
b. Ndaxam (yóó) sàcc na tééé b-i!
PRTL yoo steal clfoc.3SG book nc-SG-DEm.PRox
'(Wow!) He stole the book!'
c. *Wóór na-ma (ne) ndekete/ndaxam sàcc na tééré
sure CLFOC-1SG that PRTL steal CLFOC.3SG book
b-i!
nC-SG-dem.Prox
'I am sure that wow! He stole the book!'
(Torrence 2013a, p. 77)
Thus, this is a difference between kat and surprise particles like ndekete or ndaxam.

\subsection*{10.2.4 Examples with gaa}

Recall from Chapter 8 that gaa can also appear after a topic. One example from Chapter 8 , (12), is repeated here as (16).
(16) A: Eske Ndar neex na?

Q Ndar be.sweet clfoc.3sG
‘Is Ndar nice?'
B: Ndar gaa neex na!
Ndar gat be.sweet clfoc.3sG
'Ndar, indeed, is nice.' elicited
(16) shows that gaa in second position can occur in in agreement verum. (4) from Chapter 8 , repeated here as (17), shows that second position gaa can occur in a concessive, although I am not sure whether in (17) it is a conversational implicature or not.
(17) A: Amina jàng na b-u baax!
A. study clfoc.3SG nc.sG-rel be.good
'Amina studied hard!'
B: Moom gaa, jàng na b-u baax, waaye k-enn
3SG.EMPH GAA study clfoc.3SG NC.SG-ReL be.good but nc.sG-one
gërëm-u ko.
praise-NEG.3SG 3SG.O
'She studied hard indeed, but nobody praised her.' (H. Wane p.c.)

As shown in Chapter 4 for agreement verum and Chapter 8 for concessives, the contexts in (16) and (17) are the same contexts that license sentence-final gaa. In Chapter 4 we have also seen that gaa can occur in multiple positions in the clause. The example in (18) shows that the 'second position' for gaa doesn't have to be a topic, it can also follow a focus, as exemplified in (18) from Torrence (2013b).
(18) Cin l-i gaa la-ñu sàcc.
pot NC.SG-Rel gat cFoc-3pl steal
'They indeed stole THE POT. \({ }^{5}\)
(Torrence 2013b, p. 191)

\subsection*{10.2.5 Examples with daal}

We have already seen in Chapter 3 that daal can occur in different positions. In this section I show that daal after topics has the same meaning contribution as what was shown for sentence-final daal in Chapter 3. First, consider (19). The context for (19) is that the speaker has been talking about life in Senegal. They conclude with the following sentence:
(19) Dëkk b-i daal dëgër na, neex na. country nc.sG-def.prox dall be.hard clfoc.3sG be.sweet clfoc.3sG 'The country, it is tough, (but) it is (also) sweet.'

Dakar
In the context in (19) daal has the same meaning as in the sentence-final position, i.e., concluding, as the speaker has been talking about life in Senegal, and mentioned both tough an nice aspects of it, and ends with (19). Thus, like kay, gaa and kat, it has the same meaning in both second and sentence-final position. More examples to illustrate this are (20)-(24). In (20) the speaker is talking about the dilemma story with the child, the foster parents and the biological mother. He said 'I think they should do a DNA test.' He continues:
(20) Loolu daal moo-y sama xalaat.
that DAAL 3SG.SFOC-IPFV 1SG.POSS thought
'That is what I think.'
Dakar
The same speaker who said (20) finishes their turn with (21). While in (20) daal followed a focus, in (21) it follows a topic.

5 Original translation: 'It's the pot indeed that they stole.'
(21) Man daal loolu laa gis, sama xalaat b-u gàtt.

1SG.emph dafl that cFoc.1Sg see 1SG.poss thought nc.sG-Rel be.short 'In short, that is what I think.'

Dakar
In (22) the speaker is talking about politics. He has just said 'The people have been sitting and waiting for anybody to propose a program' and continues with (22), which expresses the same thought with different words:
(22) Nun daal, nu-ngi setaan di déglu.

1PL dall 1pl-prog watch ipfv listen 'We, we are watching and listening.'

Thiès
Finally, like gaa in the previous section, daal in second position can also occur after a focus. Some examples of this were shown in Chapter 3. Two additional examples are given in (23) and (24). The context for (23) is that the speaker finishes describing a picture.
(23) Moom daal la ma jox.

3SG.EMPH DAAL CFOC.3SG 1sG.o give
'That's what I see in it.' (lit: 'That is what it gives me.') Dakar
In (23) the focus moom 'that' is marked as an object focus, thus daal can attach to the right edge of a focus. The example in (24), from Coxor ak Mbëgge, also shows daal after a focus.
(24) Sama yoon newu ci! Loolu daal, laa bëgg! isg.poss road exist loc that dad cfoc.isg want 'I have made up my mind! (lit: 'my road is here') THAT is what I want!' (Njaay and B. Ka 2006, p. 18)

In (24) the Greedy One has expressed wanting to be blind in one eye. The Mean One can't believe it, but the Greedy One shows his insistence with (24).

This means that the Group II particles can probably be further subdivided into two smaller groups: daal an gaa on the one hand, which both can also follow a focus, and kay and kat on the other. However, more research is needed to establish this, as at this point I don't have any exmples that show that kay and kat can not follow a focus.

In this chapter I have shown the distribution of the particles kay, kat, daal and gaa. I have shown that unlike de, moom and nak, these particles have the same function in second and sentence-final position. They optionally occur following non-contrastive topics and for kay and kat I have shown that they are infelicitous in answers to list
questions. Finally, I have shown that gaa and daal can also come after a focus, rather than a topic.

\subsection*{10.3 Interaction between the two particle positions}

I have shown in this chapter that the particle kay does not occur after contrastive topics in answers to list questions. However, if the context is such that the kay-utterance contains both verum and a CT, kay is licensed after the CT. This section preliminary explores whether two particles can co-occur in a sentence, each in a different position, by comparing kay, moom and \(d e\). The example in (25) is set up such that it elicits both verum and contrastive topic in the same sentence, based on examples from Wilder (2013).
(25) A: Dudu ak Daba diña-ñu dem xew-xew b-i.
D. and D. fut-3Pl go happening nc.sG-DEf.Prox
'Doudou and Daba will go to the party.'
B: Dudu de/ moom dina dem xew-xew b-i kay, waaye Daba
D de moom fut.3sg go party nc.sG-def.prox kay but D. du dem.
NEG.3SG go
B': Dudu de/ moom dina dem, waaye Daba du dem de/ \#kay. D de moom fut.3sg go but D. neg.3sg go de kay
B": Dudu kay dina dem, waaye Daba de/moom/ \#kay du dem. D KAY fut.3sg go but D . de moom kay neg.3sg go 'Doudouct WILL go to the party, but Dabact will NOT.' elicited

The particles that were varied in (25) are de, moom and kay. De after a topic signals contrastive topic, while after a clause signals disagreement. Kay has the same contribution in both positions and moom signals contrastive topic. We see from utterance B, that a sentence with either de or moom in second position can combine with kay in final position. B' shows that kay cannot mark the second clause, as the proposition in that clause is negative and in disagreement with the antecedent proposition. In that case, sentence-final de is felicitous. Finally, B" shows that kay can occur in second position in the first clause, but not in the second clause. The second CT can however take de or moom. This is in line with the proposed meanings of the particles.

Furthermore, recall (5) from Chapter 6, repeated here as (26) with the continuation of speaker A added.
(26) Context: After the marabout has described what he sees in an ambiguous picture, his interlocutor says:
A: Yaw kat, sëriñ b-i, yaw moom, sa 2SG.EMPH KAT marabout NC.SG-DEF.PROX 2SG.EMPH MOOM 2SG.POSS xam-xam dafa réy kat! Man de bu ma-y xool know~NMLZ VFOC.3SG be.big KAT 1SG.EMPH DE if 1SG.S-IPFV look n-ii n-ii n-ii.. Sama xel like.this-PROX like.this-PROX like.this-PROX POSS.ISG intelligence d-u-ma jox l-eneeeen l-u d-ul loolu... IPFV-NEG-1SG give NC.SG-other NC.SG-REL IPFV-NEG.3SG NC.SG.DEM 'Wow, you \({ }_{C T}\), marabout, you \({ }_{C T}\), your knowledge is vast! When \(\underline{I}_{C T}\) look like this, like this, like this... my mind gives my nothing other than that (which was already discussed).'

Dakar
In (26) the speaker marks yaw 'you' once with kat and once with moom. The follow-up shows that yaw is a contrastive topic, as the speaker goes on to talk about how they could not see anything else in the picture. The second contrastive topic man is marked with \(d e\). Thus, (26) shows that kat is not incompatible with a contrastive topic, as long its requirement on the context is met: in the case of (26) kat is licensed by surprise.

In this section I have shown that the reason that kay and kat didn't occur with CTs in the data I have shown in this chapter and in Chapter 9, is that those contexts were not verum contexts. If a context is both suitable for verum and contrastive topic, kay and kat are licensed after the topic. The reason they were judged as infelicitous in the list environments I used for eliciting CTs, is because those were not suitable verum contexts. Thus, kay and kat always has a meaning contribution that operates on the whole proposition, regardless of where they are placed. More systematic research is needed to test all the possible particle combinations. In the next section I look at other languages which have particles that can appear in second position and operate on a propositional level.

\subsection*{10.4 Cross-linguistic comparison}

The data in this chapter has shown that for the Group II particles, daal, gaa, kay and kat, their placement makes no pragmatic difference. Even when they occurs after a topic, they operates on the meaning of the whole clause. Thus they have the same semantics in second position as was argued for in Chapters 3,4 and 6 respectively. This is not uncommon, as particles that attach to the first element of the clause, but
function as clausal operators have been described in other languages as well. In this section I show data from Finnish, Russian, and Gungbe. First, Finnish (Finnic, Uralic) has sentential clitics: elements which obligatorily cliticize to the first element of the sentence, although their meanings are sentential (Nevis 1986; Palomäki 2016). For example, the Finnish clitic =han can be used in a surprise context, as in (27) and (28).
(27) Suomi=han on pieni maa.

Finland=han is small land
'Finland is a small country, by golly.'
Finnish, (Nevis 1986, p. 367)
In (27) Nevis (1986) has added 'by golly' to the translation to capture the surprise feeling. Palomäki (2016) explicitly says that one possible context for (28) is one in which the speaker is surprised about Maria being with Pauli. In both cases =han cliticizes to the first constituent of the clause, Suomi in (27) and Maria in (28).
(28) Maria=han on Pauli-n kanssa.

Maria=han be.3sG. Pauli-gen with
'Maria is with Pauli.'
Finnish, (Palomäki 2016, p. 2)
Thus, Finnish has particles that cliticize to the first constituent while operating on the whole proposition they are anchored to. Unlike the Group II particles in Wolof, the Finnish sentential clitics can never occur sentence-finally. Particles that occur in both second and final position in a clause have been described for other languages as well, among which Russian and Gungbe. In Russian (East Slavic, Indo-European), the discourse marker \(\check{z} e\), used in verum contexts, can appear either in second or in sentence-final position in the same context (McCoy 2003). Consider (29):
(29) A: 'Kill the fly!'

B: Ona (že) uže ubita (že).
3SG.nom.f ŽE already killed.ptcP ŽE '(But) it IS already killed.' Russian, (McCoy 2003, p. 16)

McCoy (2003) reports that in the context of (29), a disagreement verum context, že can optionally occur either after the topic ona 'she' or at the end of the clause. Thus, this is exactly like the Wolof particles kay, kat and gaa, that can mark verum either in second or sentence-final position. The Russian marker -to, on the other hand, can only appear in
second position and marks contrastive topics. \({ }^{6}\) An example of -to in Russian is shown in (30).
(30) U tebja-to sovok, a chto u medvedja v lape?

At yоu-то scoop but what at bear in paw
' \(\underline{\text { You }}_{\text {ct }}\) have a SCOOP, but what does the bearct have in his paw?' Russian (McCoy 2003, p. 4)

The particle to is similar to the contrastive topic marking use of Wolof de, moom and nak, as unlike the B-Accent in English, it doesn't have to occur on each CT. In (30) we see that it only occurs on the first CT tebja 'you'. Unlike the Wolof Group I particles, however, -to cannot occur sentence-finally.

Finally, Gungbe (Gbe, Niger-Congo) is an example of a language which also has Group I-type particles, i.e., particles that have a different meaning in second v. sentencefinal position. Aboh (2003) has analyzed yà as a topic particle that can occur sentencefinally. He therefore refers to the particle as a 'sentence final CP marker' and to the entire sentence as a 'proposition topic. When occurring sentence-finally, yà is only felicitous in polar questions an contributes a meaning that can be paraphrased as 'as was planned'. Second-position and sentence-final yà are exemplified in (31).
(31) a. X0 ls yà Kòfí bís é mè room det top Kofi enter 3SG in 'As for the room, Kofi entered it.'

Gungbe, (Aboh 2003, p. 301)
b. Mì yì xò lésì Gúkomè tòn yä? 2PL go buy rice \(G\). poss tor.Q 'Did you buy rice from Gukome (as expected)?' Gungbe (Aboh 2010, p. 115)

Furthermore, Aboh (2010) gives a minimal pair of a polar question with a sentencefinal topic marker, (32-a) which indicates expectedness and a polar question with a sentence-final focus marker, which indicates unexpectedness, (32-b).
(32) a. Ùn kànbís dò Kòfí dù lésì yä.

1sG ask that Kofi eat rice top.Q
'I asked whether Kofi ate rice (as planned/mentioned).'
b. Ùn kànbís dò Kòfí dù lésì wê.

1SG ask that Kofi eat rice foc. \(Q\)

\footnotetext{
6 More precisely, McCoy (2003) uses the theory fut forward by Vallduví (1993) and claims that -to marks kontrast, which can either be contrast in a contrastive topic or a contrastive topic.
}

> ‘I asked whether KOFI ATE RICE (e.g., he shouldn't do so, because he's taking medicine)?' \(\quad\) Gungbe (Aboh 2010, p. 183)

In (32) we can see that a question ending with the topic marker yà can be translated as 'as planned', whereas a question ending with the focus marker \(w \varepsilon\) seems to mark surprise in the question. This is not inconsistent with the idea that focus marks new information and topic marks given information. For focus it has been said that it can be used to mark surprise (Bianchi, Bocci, and Cruschina 2016). For topic markers, however, it is not entirely clear what the general meaning of the particle would be such that it marks both topics and 'expectedness'.

Coming back to Finnish and Russian, according to Tulling (2017) the Finnish sentential clitics, Russian že and canonical sentence final particles (such as the ones in Cantonese) are all the same elements, differing only in the size of the syntactic complement they require. While standard SFPs always take the whole CP to their left, Finnish second position particles take the closest XP and Russian že can choose. If we add Wolof to this picture, Group II particles pattern like Russian že: they can occur after the first constituent or at the end of the sentence and operate on the whole proposition. And while Group I particles syntactically behave like the že particles, unlike those, what they operates on differs depending on where they are attached, like the Gungbe particle yà. Most sentences in natural language are categorical, i.e., there is a natural delimitation between the topic and the rest of the sentence (Krifka 2008). Thus, the position after the topic forms a natural boundary in the sentence, while the clause-final position forms a boundary between two clauses. Thus, these particles can occur in one of these boundary positions. Crucially, the function of Group II particles does not change depending on whether the particle occurs in the position following the topic or the position following the entire clause, while that of Group I particles does. This raises the question what exactly determines the distribution of Group II particles: when are they placed after a topic and when are they placed at the edge of a clause?

I leave this question unanswered for now.

\section*{11 Discussion and conclusion}

This chapter provides both a comparative overview of all the particles discussed in this thesis, as well as an overview of the main claims that have been made. I start with the comparison of the particles.

\subsection*{11.1 Discussion and comparison of the particles}

First, an overview of the meanings I have assigned to the particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak is listed below:
- ba: this particle is a lexical intensifier, cf. English very. It is grammaticalized from the preposition \(b a\) 'until', and is also written/pronounced as \(b e \ddot{e}\) and \(b e\).
- daal: this particle has a discourse structuring function and is used in conclusions and summaries. It signals that the speaker wishes to give their final answer to the overarching question under discussion.
- \(d e_{1}: d e\) as a sentence final particle is an intensifier that can operate on either a lexical or a pragmatic level, making it felicitous in a wide array of contexts. As a lexical intensifier it patterns like \(b a\). As a pragmatic intensifier it occurs in contexts in which the speaker wishes to express heightened certainty about adding a proposition \(p\) to the common ground. These contexts include: (disagreement) verum, surprise, warning imperatives and subjective assertions.
\(-d e_{2}: d e\) in second position signals that the topic is a contrastive topic.
- gaa: the first sense of \(g a a\) is that of agreement particle. It is used to express emphatic agreement in verum contexts. For some speakers, however, it has grammaticalized into a concessive marker. This grammaticalization path is also attested for zwar in German and certes in French. Thus, there are two groups of gaa-users: those for whom it is an agreement paricle and those for whom it is a concessive particle.
- kat is a disagreement particle. It is felicitous in disagreement verum and surprise contexts, as in surprise contexts there is disagreement between the asserted proposition and the speaker's beliefs.
- kay, like gaa, is an agreement particle that occurs in verum contexts. A variant of kay is kañ. Kay can target an embedded proposition in a negated sentence. Thus, when used in a response to a negated sentence, kay can also appear in a context in which the speaker disagrees.
- moos is an agreement particle with an additional 'of course' flavor. It does not occur frequently and mostly occurs in collocation with the verb xam 'know'.
- moom after topics, like \(d e_{2}\) signals the presence of a contrastive topic. Unlike \(d e_{2}\), moom can also mark contrastive topics in constituent question. It is the most common particle following contrastive topics. It can occur in sentence-final position as well, though in that case its meaning contribution is unclear.
- naam \({ }_{1}\) is a concessive particle grammaticalized from the response particle naam 'yes', borrowed from Arabic nagam 'yes'. As a concessive particle it signals that the super-question is a polar question and the second sub-question is answered negatively. Naam, like ba, does not occur in second position.
- naam \(_{2}\) is a response particle used to respond when one's name is called, like naam \({ }_{1}\) it comes from Arabic.
- nak, also written as nag, like \(d e_{2}\) and moom signals the presence of a contrastive topic when used in second position. Like moom and unlike de, it can also occur in constituent questions. It is the only one of those three particles that occurs in fragment questions. Additionally, it is the only of them that has an antecedent requirement: nak is only felicitous in an answer if there is an answer move that is a left sister to move containing nak. In sentence-final position, it is often translated as 'finally'.

It turned out that not all the particles in the list can be captured as 'second-position and sentence-final particles'. Table 11.1 gives an overview of all the possible positions that the particles discussed in this thesis can occur in. The possible positions for a sentence with \(\operatorname{SVO}(X)\) order are illustrated in (1).
(1) A: initial \(S\) second \(V\) post-verbal \(O(X)\) final.

\section*{B: STANDALONE}
\begin{tabular}{|l|l|l|l|l|l|}
\hline particle position & initial & second & post-verbal & final & standalone \\
\hline\(b a\) & no & no & no & yes & no \\
daal & no? & yes & yes & yes & no \\
\(d e\) & no & yes & no & yes & no \\
gaa & yes & yes & yes & yes & yes \\
kay & no & yes & no & yes & only with waaw \\
kat & no & yes & no & yes & no \\
\(m o o m ~\) & no & yes & no & yes & no \\
\(m o o s ~\) & no & yes & no & yes & no \\
\(n a k\) & yes & no & no & yes & yes \\
naam & & no & yes & no & yes \\
\hline
\end{tabular}

Table 11.1: Possible positions of all particles.

Thus, these findings shed new light on the syntax of the particles. Recall from Chapter 2 that Torrence (2013a) has analyzed the particles nak, kat, de, kay, naam and gaa as residing in the head of an emphatic projection. The clause can move to SpecEmphaticP, resulting in the linear order of the particles appearing sentence-finally. Two deviations from this linear oder are: i) naam cannot occur after the first constituent and ii) gaa can occur in more positions than just those two.

Besides their positional restrictions and semantic contribution, there is also the sociolinguistic aspect to the use of the particles. First, speakers reported that the usage of sentence-final particles is considered colloquial and informal. Another finding is that the particles are subject to inter-speaker variation. The particle daal was mostly used by younger, urban speakers, whereas the particles gaa, kat and moos were reported by those speakers to be associated with older people. The particle naam was used by younger speakers only in its 'response to name' sense, i.e., naam \({ }_{2}\), and not in the concessive sense, naam \(_{1}\). In Figure 11.1 I give a tentative overview of which particles were used primarily by older and/or non-urban 'deep Wolof' speakers and which ones primarily by younger and/or urban speakers.


Figure 11.1: Particles mostly used by 'urban Wolof' speakers, 'deep Wolof' speakers and both.

Regarding the frequency of the particles, Figure 11.2 shows the total number of particles in the searchable sources I used. These sources are recordings, which are annotated in ELAN (Sloetjes and Wittenburg 2008), and the two novels by Boris Bubakar Jóóp: Doomi Golo and Bàmmeelu Kocc Barma. Other texts and web examples were unfortunately not searchable, thus I did not include information on those in Figure 11.2. The particles \(b a\) and moom were excluded from the search, since \(b a\) is also frequent as a preposition and a definite determiner and moom as a third singular emphatic pronoun and a verb meaning 'own'.


Figure 11.2: Number of tokens per particle per source.

In Figure 11.2 we can see that the particles vary vastly in frequency. Overall, the particles that were rare, naam, gaa and moos were rare in all sources. I have no tokens of gaa and moos in my recordings and only one of naam, in which it is used as a response particle rather than a concessive marker. In Doomi Golo there were 10 tokens of naam, 19 of moos and 15 of gaa. The most frequent particles in both Doomi Golo and Bàmmeelu Kocc Barma were de and nak. In this count \(d e_{1}\) and \(d e_{2}\) are conflated, although impressionistically, \(d e_{2}\), i.e., \(d e\) following contrastive topics, seems more frequent. In the spoken corpus \(d e_{2}\) is more frequent in any case: out of the 73 tokens of \(d e, 45\) are of \(d e\) in second position. Interestingly, the only particle that is more frequent in the spoken corpus than in the two novels is daal. The total number of tokens of daal in my recordings, 103 , is the exact same amount as in both novels taken together. This is in line with observations speakers have made that using daal is even more colloquial than the other particles.

\subsection*{11.2 Overview of the main claims}

The main descriptive findings are that the particles kay, kat, gaa and de can be used to mark verum and that the particle kañ is a variant of kay. The particle moos can be translated as 'of course' in English. The first clause of concessions can be optionally marked with the particles naam and gaa. Surprise can be marked by the particles de and kat, and de can additionally mark intensification. Ba can also mark intensification. Daal marks a conclusion in an argumentation. The particles de, moom and nak can optionally follow contrastive topics, and there are subtle meaning differences between these three particles. The particles daal, gaa, kay and kat have the same function regardless of whether they appear in second or sentence-final position. The particles naam and ba cannot occur in second position.

The main theoretical claims put forward in this thesis are the following:
1. The Wolof emphatic particles, de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak, do not form a homogeneous group on neither semantic, syntactic nor sociolinguistic level.
2. Wolof doesn't have bona fide verum particles. There are multiple particles in Wolof that can occur in verum contexts, but that are not dedicated verum particles. Verum in declaratives is marked with \(d e\), an intensifier, \(k a t\), a disagreement particle, or kay or gaa, agreement particles
3. Verum in English is underspecified for agreement and disagreement verum, whereas Wolof differentiates between those two: agreement verum is marked with gaa and kay and disagreement verum with de and kat. This follows from the lexical meaning of the particles that can be used to mark verum.
4. Verum in Wolof is realized by a covert operator that needs to be made visible by a linguistic element.
5. The particles that can mark disagreement verum, de and kat, are compatible with a surprise context, unlike the verum accent in English. Surprise is a disagreement between the asserted proposition and the speaker's beliefs.
6. Wolof provides further evidence for an operator, rather than a focus-based, account of verum: i) verum is not realized in the same way as focus is ii) verum and focus can co-occur in a clause while multiple focus marking in a clause is
ungrammatical and iii) the discourse conditions that license verum in Wolof vary from those in English.
7. The intensifier de can operate on either a pragmatic level or lexical level, whereas \(b a\) can only operate on a lexical level. Cross-linguistically, there are certain intensifiers that can also operate on a pragmatic level, however, there are different types of contexts that can be considered 'pragmatic intensification' and not all of these intensifiers always occur in the same contexts. De occurs in verum, surprise, subjective assertions and warning imperatives, but not in slack regulation and prototype selection contexts.
8. The particles that are felicitous in agreement verum, are also felicitous in the first clause of concessions. In English the verum accent is the same in disagreement contexts, agreement contexts and in the first clause of concessives.
9. There are two conditions for licensing a concessive particle: i) the answer to the second sub-question is the opposite polarity of the question and ii) the answer to the second sub-question is the answer to the super-question. This corresponds to the Denial of Expectation function of the adversative coordinator which connects the two clauses of the concession.
10. Concessive particles grammaticalize from agreement markers. In Wolof two stages of this grammaticalization path can be seen: naam is completely grammaticalized, whereas gaa is only concessive for a certain group of speakers.
11. The Wolof emphatic particles can be divided into two groups based on their behavior in second position. Group I particles are de, moom and nak. These particles only operate on the topic. Group II particles are daal, gaa, kay and kat. These particles operate on the sentential level, even when they occur in second position. Such particles can also be found in unrelated languages such as Russian and Finnish.
12. Wolof has three different particles that can occur with contrastive topic. The differences between them shows the possible cross-linguistic variation in contrastive topics. The particle nak occurs in declaratives, as well as in constituent and fragment questions, and it requires an antecedent in order to be felicitous. The particle moom occurs in declaratives and constituent questions and de only in declaratives. The felicity conditions of all particle-marked topics can be captured as variants of the CT-Congruence proposed by Büring (2003)
13. Wolof has nominal frame topics: frame-setting topics with a noun rather than an adverb or prepositional phrase which are not resumed by a pronoun.
14. The particles de and naam are polysemous. De has the meanings i) intensifier which can operate on a pragmatic or lexical scale and ii) contrast maker. Naam has the meanings i) concessive marker and ii) response particle to when one's name is called.

\subsection*{11.3 Conclusion}

This dissertation has provided the first description and formal analysis of the Wolof 'emphatic' particles de, daal, gaa, kañ, kay, kat, moom, moos, naam and nak. I have shown that most of these particles have multiple functions. The different linguistic phenomena the particles relate to are intensification, verum, contrastive topics, concession and surprise. Except for intensification, these phenomena all relate to non-truth conditional meaning. I have shown how the meaning contribution of the particles can be analyzed using Questions under Discussion. The only particles which do not analyzed with a Questions under Discussion framework are sentence-final \(d e\) and \(b a\), which are intensifiers. This thesis has added to knowledge of Wolof grammar by providing a detailed description of the emphatic particles. Moreover, the Wolof data and crosslinguistic comparisons made in this thesis also shed light on our general understanding of the linguistic phenomena these particles occur in, and on the kinds of meaning that particles and discourse markers cross-linguistically can convey.

\section*{A Open issues and further research}

Throughout this thesis I made various suggestions for further research. In Chapter 3 I suggested that daal might be used differently by older and younger speakers. In Chapter 4 I suggested to look at the interaction between verum and response particles. In Chapter 6 I showed that there are other particles and interjections that play a role in the marking of things like surprise. In Chapter 9 and 10 I showed that particles can also co-occur. In this Appendix I have collected three further open issues that are not related to any specific chapter: i) the combination of particles and connectors, ii) similar particles in Atlantic and Mande languages and iii) the particles sax, itam and rekk.

\section*{A.o. 1 Particles and connectors}

So far we have seen that when the particles occur in the second position of the clause, they follow a topic, or sometimes a focus. However, there are also certain connectorparticle combinations. Connectors and particles that occur together are kon nak 'thus', kon daal 'thus', mais nak 'but', waaye nak 'but', waaye de 'but' and ndax kat 'because'. It is not clear what the contribution of the particles is in these cases, although there does seem to be an intuitive relation when we look at which particle and which connector combine. Daal, for example, can combine with kon 'thus', which is in line with its proposed meaning as 'concluding particle'. The speaker in (1) summarizes a point that another speaker has made:
(1) Kon daal problem b-i si yaay y -i la.
thus dad problem nc.sG-def.prox loc mother nc.pl-Def.prox cfoc.3sG 'So, the problem is with the mothers.'

Ndar
The connector kon can also combine with nak. An example of kon nak 'thus' is given in (2).
(2) Kon nak, bes-u-b fatteliku b-ii, dama ne delegation thus NAK day-GEN-NC.SG celebration NC.SG-DEM.PROX vFOC.ISG say delegation

Seexu Umaru Fuutiyu moo fi war-a jëkk moo fi war-a S. U. F SFOc.3SG here must-vl be.first sfoc.3SG here must-vL mujj.
end
'Therefore, this day of remembrance, I said that a delegate of Seexu Umaru Fuutiyu must show up before anyone else, must leave after everybody else has left.'
(Seck 2009, pp. 175, 176)
The particle nak can also combine with the adversative connector waaye 'but'. (3) is an example of waaye nak 'but'.
(3) A: War nga man-a tàkk ba ñenteel, loolu aju-wul ci must 2sG.clfoc be.able-vl marry until fourth that depend-NEG.3SG loc xaalis.
money
'You should be able to marry up to a fourth (wife), that doesn't depend on money.'
B: Waaw, waaye nak bala nga naan naam, danga-y fa ne. yes but nak before 2SG say yes vfoc.2sG-IPfv there exist 'Sure, but before you say yes, you need to be there (i.e., talk is cheap).'

In (3) Speaker A talks about being able to marry four women in theory. Speaker B says that while in theory it is possible, in practice you need to have the means to provide for multiple women and starts his utterance with waaw, waaye nak 'yes, but'.

Recall also (13) from Chapter 3, which contained the combination wànte daal, repeated here as (4).
(4) Xawma nak nu ngeen ko-y wax-e, wànte daal foofu laa know.neg.1SG nak how 2PL.S 3SG.O-IPFV say-APPL but dAAL there CFOC.1SG nekk.
exist
'I don't know how you call it, but in any case I am there.' Dakar
Daal in (4) has the 'in any case' reading discussed in Chapter 3.
Finally, I show an example of the combination ndax kat 'because' in (5). Speakers have commented that ndax kat is interchangeable the forms ndax or ndaxte, which all mean 'because'.
(5) Bu ma di saaga ndax kat man dama gaaw mer. NEG.IMP 1SG.O IPFV insult because KAT 1SG.EMPH VFOC.1SG be.quick be.angry
'Don't insult me, because I get angry quickly.'
(M. Diagne p.c.)

According to Mbacké Diagne (p.c.) ndax kat in (5) implies that the speaker will definitely be angry if they get insulted, thus adding more emphasis on the second clause than just ndax or ndaxte.

This co-occurene between connectors and particles can also be found in Ewe (Ameka 1991), as shown in (6).
(6) ...gaké dé, wo nonэme hã nyó-à?
but TP 2 so character too good \(Q\)
'...but is your character good as well?'
(Ameka 1991, p. 147)
In (6) the terminal particle dé combines with the adversative connector gake. According to Ameka (1991, p. 163) dé signals that the speaker still has a remaining question about what has been said before. In (6) the speaker asks about the addressee's character, flagging that as an 'open issue' from the previous discourse.

\section*{A.o. 2 Similar particles in Atlantic and Mande}

In Chapter 7 I showed that dé in Bambara occurs in some of the same contexts as Wolof \(d e\) : disagreement verum, surprise and intensification. However, \(d \varepsilon\) does not occur in second position. The particle de is common in many other West African languages. Both Atlantic languages, which are both related to and in contact with Wolof, as well as Mande languages, which are unrelated, but some of them are in contact with Wolof. A path for further research would be to study the micro-variation between the languages de occurs in.

Furthermore, Mande languages also have a ke-like particle (Diao-Klaeger 2018). In a Bambara online course the suggested translation for kè is 'évidemment', 'bien sûr' ('of course').
(7) A: 'Do you want money?'

B: N b'à f \(\grave{\text { k }}\) kè.
1SG IPFV.3SG want KE
'Of course I want it!' Bambara, online course \({ }^{1}\)

Bambara also has the particle koyi, which according to Dumestre (2003) is stronger or harsher than kè.

1 http://www.mali-pense.net/akbk1-cours-13.html\#voc
(8) Nìn ť mùso yé ksyi!
dem neg woman cop K'oyi
'Celui-ci n'est pas une femme, non!'
'That is no woman!'
Bambara, (Dumestre 2003, p. 319)
For the Atlantic languages, we have seen in Chapter 9 that \(d e\) in Sereer is similar in use to Wolof, as it can be used as an intensifier or after topics. The examples from Merrill (2018a) are repeated here as (9).
(9) a. Mi de...

1SG DE
'As for me...'
b. A ñaay-a de PRT be.spicy-dm DE 'It's really spicy!'
c. A gar-a de!

PRT come-DV DE
'It's coming!'
Sereer, (Merrill 2018a, p. 26)
Furthermore, Sereer also has a \(k\)-particle, namely koy, which according to Merrill (2018a) is a cognate of the Fula emphatic particle koy. The Sereer examples are shown in (10).
(10) a. A ñaay-a koy

PRT be.spicy-DM KOY
'It's really spicy!'
b. wo' koy?

2SG KOY
‘What about you?'
Sereer, (Merrill 2018a, p. 63)
Lex (1994) glosses koy in the Fula variant of Fuladu, spoken in the Casamance region of Senegal, as 'exactement' ('exactly'). Thus, while, \(d e\) in Sereer seems to be very similar in use as de in Wolof, koy has properties of both de (intensifying, (10-a)) and nak (fragment questions (10-b)).

In Pulaar, the Fula variety most widely spoken in Senegal, two native speakers I have consulted used the particles de and kay. Furthermore, the response particle eykay is used for disagreement with a negative statement, similar to Wolof anxkay.

Finally, Jóóla languages also have the particle de. According to Pierre Sambou (p.c.), \(d e\) is used in warnings, such as in (11) from Jóóla Foñy and (12) from Jóóla Karon.
(11) Pan i-nag-i de!

FUT 1SG.-beat-2SG.O DE
'I will beat you!'
Jóóla Foñy (P. Sambou, p.c.)
(11) is a threat or a warning with de. According to Pierre Sambou, some Jóóla Foñy varietes use re instead of \(d e\). In Jóola Karon the corresponding particle is \(l e\), as in (12).
(12) Efi \(\varnothing\)-sap-i le!
fut 1sg.-beat-2SG.O LE
'I will beat you!'
Jóóla Karon (P. Sambou, p.c.)
According to Serge Sagna (p.c.) the particles kay and kat are sometimes used by Jóóla speakers, but are likely borrowings from Wolof, as they are mostly used by speakers who live in the north (i.e., in the area where Wolof is spoken).

A summary of the similar particles I could find are presented in Table A.1.
\begin{tabular}{|l|l|l|l|l|l|}
\hline & Wolof & Sereer & Fula variants & Jóola variants & Bambara \\
\hline d-particle & \(d e\) & \(d e\) & \(d e\) & \(d e / r e / l e\) & \(d \varepsilon\) \\
k-particle \(\mathbf{1}\) & \(k a y\) & \(k a \tilde{n}\) & \(k a y\) & & \(k \grave{\varepsilon}\) \\
k-particle 2 & & \(k o y\) & \(k o y\) & & \(k o ́ y i\) \\
\hline
\end{tabular}

Table A.1: Similar particles in languages of Senegal

Furthermore, these particles are widely used in French spoken in West African countries. People I interacted with in Senegal often used kay, moom and de in their French. Research on the use of particles in the French spoken in West African countries has been done for the particles dè and kè in Ivorian French (Drabo 2018a,b) and in Burkina Faso French (Diao-Klaeger 2018). In both cases the particles come from the Mande languages that are spoken in those countries.

\section*{A.o. 3 The 'focus-sensitive' particles}

As I mentioned in the introduction, the particles sax, rekk and itam are no included in this thesis, even though they also occur in second and sentence-final positions. These three particles correspond to what are known as focus sensitive particles in English, even, only and also (Beaver and Clark 2002). One possible direction for future research is to see whether sax 'even' is really focus sensitive in Wolof. Consider the examples in (13) and (14).
(13) a. Bubakar sax laa gis.

Boubacar sax cFoc.IsG see 'I even saw BOUBACAR.'
b. Binta sax mey na ko xaalis. Binta sax give 3SG.CLFOC 3SG.o money 'Even Binta gave him money.'
c. Binta sax moo ko mey xaalis. Binta SAX 3SG.SFOC give 3 SG.O money
'Actually, it was Binta who gave him money.' (Munro and Gaye 1997, p. 169)

While in (13-a) the associate of sax, Bubakar, is marked as an object focus, in (13-b) the associate of sax, the subject Binta is not marked as the focus. In (13-b) the clausal focus conjugation is used. In fact, according to Munro and Gaye (1997), if the subject focus conjugation is used, such as in ( \(13-\mathrm{c}\) ), the sentence, judging from the translation, becomes corrective. Another example of sax seemingly not associating with focus is shown in the context in (14).
(14) A: Jean tuuti ceeb-u yàpp rekk la lekk.
J. little rice-GEN meat only CFOC.3SG eat
'John only ate a bit of the rice with meat.'
B: Xale y-i sax, tuuti ceeb-u yàpp rekk la-ñu-y lekk. child NC.PL-DEF.PROX even little rice-GEN meat only CFOC-3PL-IPFV eat 'Even the children are only eating a bit of the rice with meat.'

The associate of sax in the B utterance in (14) is not marked with a focus conjugation, rather the associate of rekk 'only', tuuti ceebu yàpp 'a little bit of rice with meat' is marked with a focus conjugation (there can only be one focus conjugation per clause).

Furthermore, there are thee words that are usually translated as 'only', rekk, doy \(\eta\) and kese. It has not been investigated so far what the exact difference between them is. Rekk can also be translated as 'just' in some contexts, as in (15), but it is not clear if the other two also have this function.
(15) Dafa àgg (rekk), taw b-i door.

VFOC.3SG arrive only, rain NC.SG-DEF.PROx begin
'(As soon as) he arrived, it started to rain.' (Robert 2010a, p. 10)
'Also' can be expressed by itam, tam, it and tamit. It and tam are only after a subject (pronoun), whereas itam and tamit can be used used after subject, object or predicate
(Munro and Gaye 1997, p. 72). This difference is illustrated in examples (16), which show the variants in sentence-final position and (17), after a subject.
(16) A: Ayda dafa-y wéy?

Ayda vfoc.3sG-IPFv sing
'Does Ayda sing?'
B: Waaw, dafa-y fecc itam/tamit/*it/*tam.
yes vFoc.3sG-IPFV dance too
'Yes, and she dances as well.'
(Munro and Gaye 1997, p. 72)
(17) Ceeb b-i it/tam/itam/tamit dafa xem.
rice nc.sG-Def.prox too vFoc.3sG be.scorched
'The rice was scorched, too.'
(Munro and Gaye 1997, p. 72)
Furthermore, it after a subject can engage in vowel coalescene with the preceding determiner, as in (18).
(18) Ah, seen xale y-it am doom-u baay.

INTRJ POSS.3PL child NC.PL-also have offspring-GEN father
'Ah, their children also have half-siblings (from the same father).' Ndar
Finally, as to the meaning it can have, consider the example in (19).
(19) Oto b-u rafet la am, waaye it, l-u jafe car NC.SG-REL be.pretty CFOC.3SG have but also NC.SG-REL be.expensive la ko jénd-e.
2SG.O 3SG.o buy-Appl
'Il a une belle voiture, aussi l'a-t-il payée cher.'
'He has a nice car, so he paid dearly for it.'
(J. L. Diouf 2003, p. 338)

According to J. L. Diouf (2003), it can combine with waaye 'but' to mean 'c'est pourquoi' ('that's why').

\section*{B Picture stimuli}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{Janvier} & \multicolumn{2}{|r|}{Février} & \multicolumn{2}{|r|}{Mars} & \multicolumn{2}{|r|}{Avril} & \multicolumn{2}{|r|}{Mai} & \multicolumn{2}{|r|}{Juin} \\
\hline 1 & & 1 & & 1 & & 1 & & 1 & & 1 & \\
\hline 2 & Moussa & 2 & & 2 & & 2 & & 2 & & 2 & \\
\hline 3 & & 3 & & 3 & & 3 & & 3 & & 3 & \\
\hline 4 & & 4 & & 4 & & 4 & & 4 & & 4 & \\
\hline 5 & & 5 & & 5 & & 5 & & 5 & & 5 & \\
\hline 6 & & 6 & Fatou & 6 & & 6 & & 6 & & 6 & \\
\hline 7 & & 7 & & 7 & & 7 & & 7 & & 7 & \\
\hline 8 & & 8 & & 8 & & 8 & & 8 & & 8 & \\
\hline 9 & & 9 & & 9 & & 9 & & 9 & & 9 & \\
\hline 10 & & 10 & & 10 & & 10 & & 10 & & 10 & \\
\hline 11 & & 11 & & 11 & & 11 & & 11 & & 11 & \\
\hline 12 & & 12 & & 12 & & 12 & & 12 & & 12 & \\
\hline 13 & & 13 & & 13 & & 13 & & 13 & & 13 & \\
\hline 14 & & 14 & & 14 & & 14 & Bachir & 14 & & 14 & \\
\hline 15 & & 15 & & 15 & & 15 & & 15 & & 15 & \\
\hline 16 & & 16 & & 16 & & 16 & & 16 & & 16 & \\
\hline 17 & & 17 & & 17 & & 17 & & 17 & & 17 & \\
\hline 18 & & 18 & & 18 & & 18 & & 18 & & 18 & \\
\hline 19 & & 19 & & 19 & & 19 & & 19 & & 19 & \\
\hline 20 & & 20 & & 20 & & 20 & & 20 & & 20 & \\
\hline 21 & & 21 & & 21 & & 21 & & 21 & & 21 & \\
\hline 22 & & 22 & & 22 & & 22 & & 22 & & 22 & \\
\hline 23 & & 23 & & 23 & Hamine & 23 & & 23 & & 23 & \\
\hline 24 & & 24 & & 24 & & 24 & & 24 & & 24 & \\
\hline 25 & & 25 & & 25 & & 25 & & 25 & & 25 & \\
\hline 26 & & 26 & & 26 & & 26 & & 26 & & 26 & \\
\hline 27 & & 27 & & 27 & & 27 & & 27 & & 27 & Awa \\
\hline 28 & & 28 & & 28 & & 28 & & 28 & & 28 & \\
\hline 29 & & 29 & & 29 & & 29 & & 29 & & 29 & \\
\hline 30 & & & & 30 & & 30 & & 30 & & 30 & \\
\hline 31 & & & & 31 & & & & 31 & & & \\
\hline
\end{tabular}

Table B.1: Calendar task


Figure B.1: Mango


Figure B.2: Soursop


Figure B.4: Tamarind

Figure B.3: Màdd


Figure B.5: Travel map, Map data ©2020 Google


Figure B.6: Rain

\section*{C Verbal stimuli}

\section*{C. 1 Dilemma tales}

Thanks to Demba Sow for the translation of the stories from the English sources.

\section*{C.1. 1 The Three Youths}

Wolof: Ñetti waxambaane la woon. Ñu ñëw ci ab dex gu réy. Kenn ki dal di xotti dex gi ak jaasam, mu jàll ci geneen wet gi te tooyul. Keneen ki jël ab sër bu gudd. Mu dal di ci jaar mu jéggi dex gi. Ñetteel ki keneen ki jël ab xeej mu leen di sànni ñu dal di nekk benn xeej bu gudd mu dal di ci jaar jàll.

Kan moo gëna mus?
English: Three youths came to a huge river. The first split up the water with his sword and reached the other bank with dry feet. The second unrolled a band of cloth and made a bridge on which he crossed over. The third shoot arrow after arrow, each striking the other so that they formed a wooden bridge over the river.

Which is the most cunning?
(Bascom 2011, pp. 20-21)

\section*{C.1.2 The Three Youths and the Girl}

Wolof: Ñetti waxambaane la woon. Ku na am taaram. Demoon nañu seeti benn janq. Kenn ci ñoom am na jumtukaay bu xarala, bu koy won ndaw si dee na. Keneen ki am ab mala bu leen di fa yóbbu. Ñetteel bi am sunguf, bu koy dekkal.

Kan moo moom janq bi?

English: Three youths, each with his charm, went to see a girl. One had a magic telescope in which he saw that she was dead. Another had an animal hide that took them to her. The third had a powder that revived her.

To whom did the girl belong?
(Bascom 2011, p. 46)

\section*{C.1.3 Lion and Hyena}

Wolof: Bukki la woon ak gaynde. Ñuy tabax kër. Bu bukki liggééyee tey gaynde liggééy suba. Kër gi ñaari néég la, benn miir bu am bën-bën. Benn bés ab màgget bu jigéén ñëw ci néégu gaynde di lakk taw bu metti. Ngir gërëm bukki, jigéén ji may na ko lekk jaarale ko. Bukki dal di tiit mu ubbi bunt bi, daw ci biti. Gaynde tamit tiit, topp ko. Naari mala yi daanu ci suuf, ñu jóg, daw, dem seen yoon. Bi ñu demee ba ñu sori, ku nekk laaj moroomam lu tax ngay daw. Nu laaj njamala mu dem seet kan moo nekk ci kër gi. Bi njamala bi yeggee ci kër gi, mu dal di duggal boppam ci bën-bën bi, jigéén ju màgget ji jël misoor bu xonq, tàkk ko ci baatu njamala. Bu njamala delloo ci gaynde ak bukki, bukki nee gaynde njamala mungiy nàcc. Yeneen mala yi gis leen, ñu ànd ak ñoom ñu daw. Nay daw jafe ko lool. Na muy dawe muy def ay bën-bën ci suuf. Mbott bu ndaw, mu topp ci na mu mënee, mu yuuxu: "Moytuleen pax mi ci ndox mi."

Lan lañu mën jàngat ci bii léeb?

English: Working on alternate days, the hyena and the lion built the same house. It had two sections with a hole in the wall between them. The hyena was in one part, and during a storm an old woman took refuge in the other. Through the hole she offered some food to the hyena, in thanks for his hospitality. In fear, the hyena opened the door to rush out, just as the lion came in. The two animals tumbled into the sand, got up and ran away. Stopping at a stream, each asked the other why he was running. They asked the giraffe to see who was in the house. It stuck its head through the hole in the wall and the old woman tied her red kerchief around its neck. When it returned to the other two animals, the hyena told the lion that the giraffe was bleeding. The other animals saw them and fled with them. The elephant ran so hard that it made holes in the ground, and the little frog, following as best as he could, cried "Watch out for the ponds".

What can we learn from this story?
(Bascom 2011, pp. 80-81)

\section*{C.1. 4 The Estranged Mother}

Wolof: Benn màgget bu góór la woon ak benn bu jigéén. Bi ñuy dem ci seen tool, ñu dégg ab xale buy jooy. Nu dem seet, fekk xale bu liir la. Màgget bu jigéén bi fob ko, mu dellusi dëkk ba. Moo laaj, ndax am na ku xam dara ci yaayu xale bi. Waaye mënul
gis yaayu xale bi. Ci noonu, màgget bu jigéén bi de jël xale bi, def ko doomam. Jëkkër ji nangu ko loolu. Xale bi dund ak noom. Màgget bu jigéén bi mel ni yaayam. Màgget bu góór bi mel ni baayam. Ñu bëgg ko lool ni seen doom bu ñu jur. Xale bi màgg di liggééyal màgget bu góór bi ak bu jigéen bi. Xale bi doon nappkat. Benn bés ab màgget bu jigéen ñëw ci kër gi, mu wax: "Xale bi sama doom la. Ma ko bàyyiwoon ci tool yi, boobu ak léégi yàgg na amumawoon lekk bu ma ko jox. Xiif moo amoon. Dama foogoon, dee na walla ay nit for nañu ko. Ma déggoon ngeen for xale, léégi ma bëggoon mu ñëw ànd ak man sama dëkk, ndaxte man maay yaayam."

Léégi, lan la xale bu góór bi ak màgget bu jigéén bi ak màgget bu góór bi, ñi ko for bi mu nekkee xale, wara def?

English: Once upon a time there was an old man and an old woman. Once on their way to their field they heard a child crying. They found this child - it was a small baby-boy. The woman took him up, went back to her village and asked whether anyone knew anything about his mother. But she could not find the mother of this boy. Thus the old woman said that she will take the little boy and treat him like one of her own children, and her husband agreed to this. So the boy stayed with them, the old woman was like his mother, the old man was like his father, and they loved him like a child of their own. The boy grew up and worked for the old man and the old woman. He was a very good fisher. One day an old woman came to their place and said: This young man is my son. I abandoned him a long time ago in the fields because I had no food to feed him. There was a famine. I thought he might either die or people might find him and help him. I heard that you found the baby and now I want him to come with me to my village and work for me, because I am his real mother. Now, what are the young man, and the old woman and the old man who picked him up as a baby, going to do?
(Senft 2003, p. 29)

\section*{C.1. 5 The Great Famine}

Wolof: Dafa amoon xiif bu metti. Lekk, pataas, dugub, màngo, bëy, dara amulwoon. Amoon ag góór gu demoon ci beneen bërëb. Foofu, mu gis fa kamyoŋ̧. Bi mu yeggee ci, mu gis woto bi dafa fees dell ak lekk. Fekk dafa xiif lool. Mu gis ab jaambur bu mel na day aar lekk bi. Nit kooku dem yoonam, kenn aarul lekk gi. Nit ki noonu mu dem bari woto, bu mu jël ci lekk.

Xalaat nga li mu def lu baax la am déét?
English: Once upon a time there was a big famine. There was no food, no sweet
potatoes, no taro, no coconuts, no pigs (etc.). There was a man who went to another island (place). There he saw a ship (a truck etc). He went to it and saw that it was full of food. He was terribly hungry. He saw a stranger who looked like he was protecting the food. Then this man left (for a swim, a stroll), and no one guarded the ship (truck) full of food. The hungry man wanted to take some food because of the famine and because he was so hungry. He went to the ship (truck), took some food and ate it.

Do you think what he did was good, or what?
(Senft 2003, p. 30)

\section*{C. 2 Dialogues}

Based on examples in Creswell (2000), Gutzmann and Castroviejo Miró (2011), Gutzmann, Hartmann, and Matthewson (2020), and Schwarz (2010)
(1) A: Fatou read a good book.

B: Yes, she did read a book, but it was a bad one.
(2) A: What happened?

B: Fatou wrote a book!
(3) A: Is it raining?

B: No, the neighbours are washing.
(4) A: Today Fatou looked good.

B: Yes, she did look good.
(5) A: Today, Fatou didn't look good.

B: Indeed, she didn't look good.
(6) A: Today Fatou looked pretty.

B: No, she didn't!
(7) A: Today Fatou didn't look pretty.

B: No, she did!
(8) A: Wash the clothes!

B: I did already wash them!
(9) A: Do you sing?

B: Yes, I do sing.
(10) A: You don't sing, right?

B: Yes, I DO sing!
(11) A: You sing right?

B: No, I don't sing.
(12) A: Do you really sing?

B: Yes, I DO sing.
(13) A: You should drink some bissap, it is healthy.

B: Wait, IS it healthy?
(14) A: When is the party?

B: I don't know when IS it?
(15) A: You haven't cooked the yaasa chicken!

B: Yes I HAVE cooked it!
(16) A: You can do that in Ndar, since we are going there tomorrow.

B: Wait, ARE we going there tomorrow?

\section*{C. 3 Contexts}
(17) A goat walks in. Amadou sees the goat and is pretty sure that it is a goat. Awa hasn't seen the goat, yet. What does Amadou say?/ Can he say...?
(18) You see a friend down the street. She told you she was vegetarian, but you see her eating meat. What do you say?/ Can you say...?
(19) You and your friend want to cross the road. There is a lot of traffic. Your friend is not paying attention. You want to tell them to be careful. What do you say?/ Can you say...?
(20) Your friend tells you a man has been following her around lately. You think he might be dangerous. You want to tell them to be careful. What do you say?/ Can you say...?
(21) Awa and Fatou have an important meeting at the other side of the city. They should leave in time because there could be a lot of traffic. Awa is ready to go, so she says:
A: We should leave.
However, Fatou is still looking around for something and doesn't reply.
Awa: We should leave!

Fatou still doesn't reply.
What does Awa say?/ Can she say...?
(22) Awa asked Amadou to bring her tea. When he comes back, he is carrying a glass of water. What does Awa say?/ Can she say...?
(23) It's a sunny day. Your friend suggests going to the beach. You don't mind. Can you say...?
(24) Your friend says there are good books in the local library. You wholeheartedly agree. Can you say...?
(25) Awa is trying to buy some fruit at the market. She asks how much the mango costs. The saleswoman names the price. Awa thinks it is too expensive. How does she express that?
(26) Hamine and Omar went out to shop. Moussa bought fabric, Hamine bought meat and Omar bought mangoes. After that they went to their mother's house and they showed her what they bought. Then Bintou also came into the house and saw that they have been shopping, so she asks their mother: 'What did everyone buy?' What does the mother reply?/ Can she say...?
(27) Moussa is trying to play the sabar inside the house, while Bintou is listening. Moussa is not very good at it, it sounds like someone is beating a wall. Hamine walks by the house and hears the noise, but because Moussa plays so badly, he doesn't recognize that it is the sabar. He walks in the house and asks 'What is happening?'. What does Bintou say?/ Can she say...?
(28) Awa and Amadou are walking when they pass by a food stand. Awa says: 'There is a food stand nearby. Do you want to eat?' Amadou says 'no'. A short while later Amadou says he is hungry. What does Awa say?/ Can she say...?

\section*{C. 4 Felicity judgments}

Intensification/verum judgments, based on Jacob (2014).
(29) a. It is not a little bit spicy, it is really spicy.
b. You don't believe it is spicy? But it really is spicy!
(30) a. S/he doesn't drink a little bit, s/he drinks a lot.
b. You don't believe s/he drinks? But s/he really drinks!
(31) a. It is not a little bit dead, it is really dead.
b. You don't believe it is dead? But it really is dead!

Correction judgments, based on Davis (2011).
(32) A: When does the film start?

B: I'm not sure, but I think at 8 .
(33) A: Shall we go eat?

B: But it is already 8 , the film is about to start!
(34) A: Since the film starts at 9, we have plenty of time to eat.

B: But the film starts at 8!

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[^0]:    1 Connectors and particles occur together occasionally, more examples are shown in Chapter 11

[^1]:    2 I don't know why ku 'who' is used here instead of a first person singular pronoun. The speaker who said this told me that he meant 'this is what I think'

[^2]:    2 While I expected kat to be felicitous in responses to biased questions, on par with de, two speakers did not find it felicitous, one of which commented that 'you can't use kat here because you are not contradicting the other person'. This suggests that kat marks counter-assertions rather than just disagreement. Two other speakers were unsure about kat in this context and since eliciting kat in biased questions was confusing, I left it for a future occasion.

[^3]:    3 A particle with a similar function, $d^{\prime} \varepsilon$, in Bambara is also not grammatical in questions unless the question is rhetorical (Prokhorov 2014). I do not have any rhetorical questions in my data set, so I cannot say if this is also the case in Wolof at this point.

[^4]:    4 Glosses and translation mine
    5 According to Faye (2012) and Holmberg (2015) déédéét can also be used for agreement with negative statements, but the speakers I worked with preferred waaw for this. There could be variation or the response particle system could be shifting from a Positive-Negative to an Agreement-Disagreement one. In Section 4.6 I elaborate on the Wolof response particle system.

[^5]:    6 In this way gaa is similar to English indeed, which can attach to a clause, or occur on its own, as in (i) and (ii).

[^6]:    7 Gutzmann, Hartmann, and Matthewson (2020) don't show verum marking in imperatives. According to Matthewson (2020) the Gitksan verum particle ( $k$ )'ap is marginal in imperatives.

[^7]:    8 The unavailability of the particle in certain clause types is explained by Kocher (2018) using Lohnstein's 2016 sentence mood theory of verum. She posits that in imperatives the verb moves to MoodP, rendering the merger of sí (que) redundant that in questions MoodP is occupied by something else that prevents the particle from merging. See Chapter 5 for more on the sentence mood theory.

[^8]:    9 Yaasa or yassa is an onion sauce, see http://www.recipefaire.com/Recipes/Recipes/ ChickenwithLime YassaGinaarRecipe.aspx

[^9]:    10 Glosses mine.

[^10]:    11 The Wolof examples in SSWL are provided by Mariame Sy.
    12 Gorée is an island off the coast of Dakar, most known for its memorial for the Atlantic slave trade.

[^11]:    13 I once answered a neutral polar question with waawaaw, with which I tried to convey something like 'definitely' or 'of course', but to which my interlocutor replied "why do you say waawaaw, it doesn't fit here, you can just say waaw".

[^12]:    1 Another approach is Repp (2013), who adds discourse conditions to the definition in (2).

[^13]:    2 See Matthewson (2020) for a proposal to capture the discourse condition on VERUM( $p$ ) using Commitment Space semantics (Krifka 2015). The informal definition is given in (i).
    (i) Discourse condition on $\operatorname{VErum}(p)$ : The speaker believes that some interlocutor is committed to $\neg p$.
    (Matthewson 2020, p. 3)

[^14]:    4 Note that I mean the A utterance in (24) to be pronounced as a normal assertion and not as a rising declarative in the sense of Gunlogson (2008)

[^15]:    5 Interestingly, a context in which the addressee does not reply is enough to license verum in English in imperatives, as the case in context 5 in Chapter 4 , the relevant example repeated here as (i).
    (i) A: John, please grab a chair.

    B: (no reaction)
    A: Darling, would you please grab a chair?
    B: (no reaction)
    A: GRAB a chair at once!

[^16]:    6 According to Zimmermann and Hole (2008) languages vary on whether they mark verum and verb focus in the same way. If verum is marked as focus in a language and if it is marked syncretically with another focus in that language, then it will be marked syncretically with verb focus. Examples of non-Indo European morphologically focus-marking language which mark verum syncretically with verb focus are Buli and Kınni (both Mabia, Niger-Congo, Schwarz (2010)) and Kichwa (Quechua II, Quechuan, Shireman (2012)), see Zimmermann and Hole (2008) for a complete overview. Zimmermann and Hole (2008) also put Wolof in the group of languages that mark verum and verb focus syncretically, and attribute this to Robert (2010b). However, while Robert (2010b) does say that the predicate focus conjugation sometimes corresponds to 'really' in the translation, the examples she gives are of intensification and not verum.

[^17]:    1 It is usually said that Italy is shaped like a boot. Considering boots are not traditionally worn in Senegal, there is no Wolof word for 'boot', so I made up a different shape for Italy when eliciting this example.

[^18]:    4 A sabar is a type of drum, see https://en.wikipedia.org/wiki/Sabar

[^19]:    1 Note, however, that (3) is not the most natural way to say 'It is not raining a lot', possibly due the ambiguity with the verum reading. A non-ambiguous alternative suggested by a consultant is (i), which employs the verb bari 'be many'. See Section 7.2 for other ways of marking intensification.
    (i) Taw b-i bari-wul. rain nc.SG-DEF.PROX be.many-NEG.3SG 'It is not raining a lot.' (lit: 'The rain is not many')

[^20]:    2 (4) could however be analyzed as a subjective assertion with a predicate of personal taste, see Section 7.5 .

[^21]:    3 Doy waar 'be weird' is an idiom that consists of the verbs doy 'suffice' and waar 'preach', 'be amazed'.
    4 Nijaay literally means 'maternal uncle', but is also an affectionate address form for one's husband (J. L. Diouf 2003, p. 183).

    5 Cross-linguistically, there are intensifiers that only modify either gradable adjectives or gradable verbs. For example, English very only modifies gradable adjectives, whereas verbs are modified with a lot or (very) much. Levenite Arabic harbe only modifies gradable verbs and not adjectives (McNabb 2012b, p. 119).

[^22]:    6 The speaker added $s i$ ' ${ }^{\prime}$ 'oc' when pronouncing the sentence.

[^23]:    7 A prototypical exclamative in Wolof is formed with the sentence-initial particle $a k a$, for example as in (i), which is a slogan for a soft drink sold in Senegal:
    (i) Aka neex!
    exclam be.sweet
    'How sweet (it is)!'

[^24]:    8 Maafe is a dish with meat and peanut sauce, see for example http://www.food-of-africa.com/ senegalese-food/maafe-recipe/

[^25]:    9 Rialland and Robert (2001, p. 910) use these examples to describe the prosody of de-utterances, which they say are "produced with a continuous high plateau terminating with a glottal stop."

[^26]:    10 The online course can be found under http://www.mali-pense.net/akbk1-cours-13.html, English translation mine. I have used the gloss of for dé for consistency.

[^27]:    14 In all of the examples with $d e$ in this thesis the attitude is attributed to the speaker. It should be tested whether a sentence like (i) can have 'Jean' as the epistemic agent.
    (i) Jean nee na da-nu war-a dem de!
    J. say CLFOC.3SG VFOC-3PL must-VL go DE
    'Jean said we have to go!'

    15 In the original Giannakidou and Yoon (2011, p. 636) definition this attitude was ' $\alpha$ prefers $p$ ', but considering prefer is a three-place predicate, whereas the rest are two-place predicates, the 'prefer' interpretation only comes about from the conjunction of $p$ and $q$. That is to say ' $\alpha$ likes $p$ to a degree that $\alpha$ doesn't like $q$ ' leads to the interpretation ' $\alpha$ prefers $p$ over $q$ '. Therefore, ' $\alpha$ likes $p$ ' is more appropriate than ' $\alpha$ prefers $p$ ' for $R$.

[^28]:    16 A similar proposal has been made by Greenberg and Wolf $(2018,2019)$, who posit that the ASSERT operator is gradable and thus can be modified by certain degree modifiers - such as the Hebrew intensifier legamrey 'completely', which can also function as a response particle - that modify the degree of credence the speaker has towards the asserted proposition. They propose to equip the speech act operator $A S S E R T$ with a credence degree argument, which can be modified by the intensifier. For details of their analysis see Greenberg and Wolf $(2018,2019)$

