

Katharina ist eben die beste: On conclusive discourse particles in Wolof and German

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1 Introduction

This short squib in honour of Katharina brings together two topics at the heart of her research activities: the formal study of German, on the one hand, and the study of West African languages, on the other. I will take this special opportunity to discuss two of my favorite topics, namely German discourse particles and the semantics of West African languages, and to show how they can be fruitfully combined. Drawing on Jordanoska (2020), I will propose a unified QUD-based analysis for the Wolof conclusive particle *daal* and its German counterpart *eben*. (1) shows a representative example of *eben* from Thurmair (1989: 122) in its proto-typical sentence-connecting and inquiry-terminating function, where it indicates that nothing more need be said on the topic.

- (1) a. Evi: Today is a bit complicated! I still have so much to do.
b. Pit: Gut, komm ich **eben** morgen. So dringend ist es ja
P: Alright, come I PRT tomorrow. So urgent is it PRT nicht.
not
'Alright, I will come tomorrow, then. It's not that urgent after all.'

(2-a) from Jordanoska (2020: 67) illustrates the Wolof conclusive discourse particle *daal*. The example comes from the discussion of a case in which a child has been raised by foster parents. Later the child's putative biological mother asks for him to come with her, giving rise to the question 'What should the child and the foster parents do?'. This question is then answered conclusively with (2-a). Interestingly, the closest translation to German features the particle *eben* in (2-b):

- (2) a. Dañu war-a dem... def test ADN xool baxam... k-an
 VFOC.3PL must-VL go do test DNA see whether NC.SG-Q
 moo moom xale b-i **daal**.
 SFOC.3SG possess child NC.SG-DEF.PROX PRT
 ‘They have to go do a DNA test to see who the child belongs to.’
- b. Dann müssen sie **eben** einen DNA-Test machen lassen, um zu sehen, wessen Kind es ist. (German)

Both German *eben* and Wolof *daal* are also found in advice imperatives, cf. (3), (4):

- (3) a. I won’t manage until tomorrow.
 b. Arbeite **eben** schneller.
 work PRT faster
 ‘Work faster then!’ (German, Müller 2018)
- (4) 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 PRT PRT
 ‘Be careful!’ (advice) (Wolof, Jordanoska 2020: 71)

On closer scrutiny, *eben* and Wolof *daal* have a fully parallel distribution. Both are licit (i.) in consequential or concluding statements, cf. (1), (2); (ii.) in advice imperatives, cf. (3), (4), though not in warning imperatives; and (iii.) in so-called repetitive and incomplete information contexts (to be shown). Given these striking parallels in distribution, I will draw on Jordanoska (2020) on *daal* and propose a unified QUD-based analysis for both particles that accounts for their shared interpretive properties and parallel distribution.

The article is structured as follows: Section 2 gives an overview of the received wisdom of the meaning of German *eben*, drawing on the extensive literature. Section 3 briefly discusses a formal discourse-semantic analysis of *eben* in the *Table Model* of Farkas and Bruce (2010), and some problems for this particular implementation. Section 4 introduces the relevant data on Wolof *daal* from Jordanoska (2020), and it shows how they can be accounted for in a QUD-based analysis. Given the parallels in distribution, Section 4.3 then extends the QUD-based analysis to *eben*. Section 5 concludes with a short comparison to the German particle *ja* and some remarks on different sub-types of discourse particles in natural language.

2 The meaning contribution of *eben*

Same as the meaning of other German discourse particles, the semantic contributions of *eben* and its close counterpart *halt* have been amply discussed in the for the most part descriptive literature; see, e.g., Dahl (1988), Thurmair (1989), Karajosova (2004), and Müller (2018) for a recent overview.¹

2.1 The meaning of *eben* (and *halt*)

Following Müller (2018: 211ff.), there seems to be a general consensus that *eben* has two major meaning components. First, *eben* is anaphoric, as the clause containing the particle must stand in some (often causal or conditional-consequential) relation to some salient proposition in the discourse. *Eben* (and *halt*) can therefore be considered responsive or reactive particles that require a contextual antecedent and cannot occur in out-of-the-blue or topic-changing utterances, cf. Müller (2018: 211). Second, *eben* introduces an interpretive element of categoricity or inquiry-termination. This interpretive effect has been variably addressed as *unabänderlich*, *kategorisch*, *Thema beendend*, *Absolutheit*, *Kategorizität*, *evident*, *generell gültig*, *axiomatisch*, where the evident status may extend to the relation between particle utterance and its contextual antecedent; see Müller (2018) for references. Summing up the discussion in the literature, we observe that *eben* is inquiry-terminating (Velleman et al. 2012), or *issue-resolving*. Notice that the discourse-semantic literature offers two formal models for dealing with issue-resolving discourse moves. In the Table Model of Farkas and Bruce (2010), an issue is resolved if it is removed from the negotiation table, typically through an enrichment of the mutual common ground (Stalnaker 1978). In the QUD-model of Roberts (2012), issues are identified with *questions under discussion* (QUDs). They are resolved when the QUD in question has been fully answered. In what follows, we will consider both models in our quest for finding out which model may be more suitable for capturing the observable facts.

In connection with its issue-resolving nature, it has been observed that *eben* is stronger than its close counterpart *halt*. Example (5) from Thurmair (1989: 124) illustrates. In this context, *eben* is intuitively perceived as too strong, thereby leading to a contradiction. In contrast, the presence of *halt* just indicates a potential problem that leaves room for alternatives (i.e., the friends could bring some beer).

¹I will focus on *eben* and make only occasional reference to *halt*, which I take to be related but not identical in meaning; cf., e.g., Müller (2018) for similarities and differences between the two particles.

- (5) Context: You can bring your friends along alright.
- a. Wir haben **halt** kein Bier mehr.
 - b. #Wir haben **eben** kein Bier mehr.
we have PRT no beer more
'We have no more beer, though.'

Thurmair (1989) also observes that *eben* cannot easily be substituted for *halt*. She concludes that *eben* has a stronger meaning than *halt*: *Eben* marks the propositional content of its utterance as evident, whereas *halt* marks the propositional content of its utterance as merely plausible, where the notions of evidentiality and plausibility are characterized by the presence or absence of alternatives:

- (6) a. *eben* p: There are no alternatives to $p \rightarrow p$ is evident
b. *halt* p: p is plausible against other licit alternatives from ALT(p)

The notion of alternatives immediately brings to mind the notion of questions or QUDs, a point to which we will return below.

2.2 Representative occurrences of *eben*

We conclude this section with a list of representative typical occurrences of *eben*. First, as already shown in (1), *eben* is frequently found in sequences of sentences that stand in the semantic relation of *cause*, *consequence*, or *conclusion*:

- (7) a. Our neighbour was very noisy again today.
b. Er ist **eben** ein Choleriker.
he is PRT a choleric
'He is a choleric after all.'
(Müller 2018: 213, nach Dahl 1988: 98)

Secondly, *eben* often occurs in clauses expressing *incomplete information*. Notice that there are two ways for the information conveyed by (8-b) to be incomplete: (i.) speaker ignorance ('I have no idea. That's the way it is!'), or (ii.) purposely withheld information ('I won't tell you. That's the way it is.').

- (8) a. Wieso muss man denn hier fünf Fragebögen ausfüllen?
why must one PRT here five questionnaires fill.in
'Why would we need to fill in five questionnaires?'
b. Das ist **eben** so.
that is PRT so
'That's just the way it is.'
(Müller 2018: 212, Schlieben-Lange 1979: 312)

Eben-clauses can also function to sum up in a repetitive or conclusive manner:

- (9) a. What do you see in the picture?
 b. Ich sehe einen Baum. Ich sehe auch Häuser. Ja, da sind **eben**
 I see a tree I see also houses yes there are PRT
 ein Baum und Häuser.
 a tree and houses
 ‘I see a tree. I also see houses. Yes, there is just a tree and houses
 (There is no more to be said).’

The final licensing environment for *eben* are *advice imperatives*, as already illustrated in (3) above. In contrast, *eben* is infelicitous in out-of-the blue *warning imperatives*:

- (10) Achtung, bleib (**#eben**) stehen!
 attention stay PRT stand
 ‘Attention, don’t move.’

Finally observe that *eben* is focus-sensitive. As with other discourse particles (Zimmermann 2011), accent placement affects the overall interpretation of *eben*-clauses:

- (11) a. Dann nimm **eben** die BRÖTCHEN.
 then take PRT the breadrolls
 ‘Take the BREADrolls then.’
 (QUD: What should A take?)
 b. Dann NIMM **eben** die Brötchen.
 then take PRT the breadrolls
 ‘Do take the breadrolls, then.’
 (QUD: To take or not to take?)

An adequate analysis of *eben* should capture the sensitivity to focus and the QUD. We next turn to the formal semantic analysis of the meaning of *eben*.

3 Modelling the meaning of *eben* in the Table Model

Müller (2018) puts forward a concrete proposal for modelling the meaning of *eben* in the Table Model of Farkas and Bruce (2010). In this section, we quickly introduce the model with its four basic components in 3.1, before we look at the concrete implementation in Müller (2018) in 3.2. This will be followed by a critical discussion of some problems for the analysis in Müller (2018).

3.1 The Table Model: Farkas and Bruce (2010)

Farkas and Bruce (2010) put forward a general framework for dynamically modelling the discourse semantic impact of assertion and question speech acts, and their corresponding responsive discourse moves of confirmation, rejection and answers (to questions). In a nutshell, the model consists of the following components: (i.) the *Table* registers the issue currently under discussion: issues can be introduced by assertions or questions alike; (ii.) the *discourse commitments (DCs)* of the individual interlocutors; (iii.) the *projected set*, which indicates the direction in which the speaker of an utterance intends or expects the discourse to develop; (iv.) the Stalnakerian *common ground (CG)*, which registers the propositions mutually agreed upon. A propositional piece of information will automatically enter the common ground once all the interlocutors have publicly committed to it as part of their individual discourse commitments. Table 1 illustrates for two interlocutors, *A* and *B*.

A	Table	B
DC_A	S	DC_B
Common Ground cg		Projected Set ps

Table 1: The Table Model of Farkas and Bruce 2010

Tables 2 and 3 model the development of the mini-discourse in (12) with an initiating assertion and a subsequent (responsive) confirmation. Here, p stands for the proposition that Levi is sick.

- (12) a. B: Levi is sick. (= p)
 b. A: Okay!

B's public assertive commitment to p in (12-a) is first registered in the set of *B*'s public discourse commitments. By committing to p , *B* also places p as a new issue on the negotiation table. Moreover, the assertive nature of *B*'s speech act changes the projected set such that the original CG cg_0 is updated with p . Since *A* has not committed to p yet, the CG remains in its original state. This only changes with *A*'s confirmation in (12-b), by which *A* publicly commits to p as well. As both interlocutors agree, the issue is resolved, and the CG is updated with p . Both table and the projected set are empty again until the next initiating discourse move raises the next issue in the form of an assertion or question. Let us now take a look at Müller's (2018) specific analysis of the discourse-semantic effects of *eben* in this model.

A	Table	B
DC_A	p	p
cg_0		$ps_1 = \{cg_0 \cup \{p\}\}$

Table 2: Modelling the assertion of $p = \textit{Levi is sick}$

A	Table	B
p		p
$cg_1 = cg_0 \cup \{p\}$		

Table 3: Modelling confirmation by *Okay!*

3.2 Modelling *eben* in the Table Model: Müller (2018)

Müller's (2018) analysis of *eben* aims at accounting for its discourse-anaphoric and its categorical, issue-resolving nature within a slightly revised version of the original Table Model of Farkas and Bruce (2010). One change concerns the fact that Müller (2018) takes the assertion that p to raise the slightly more complex issue $p \vee \neg p$. She illustrates her analysis with the example in (13), where the use of *eben* highlights a causal or consequential relation between two utterances by two speakers A and B.

- (13) a. B: Levi is not looking well. (= q)
 b. A: Er war eben lange krank. (= p)
 he was PRT long ill
 ‘He has been ill for a long time after all.’

Müller (2018) postulates three general conditions for the felicitous use of *eben*: (i.) Speaker A's *eben*-utterance with its propositional prejacent p must anaphorically refer back to a contextually salient proposition q , which she takes to be part of the individual public discourse commitments of addressee B (more on this below); (ii.) moreover, the *eben*-prejacent p must also be part of the addressee's public discourse commitments; (iii.) finally, there must be a defeasible entailment $p > q$ in the CG. In the case of (13), this is the entailment that if somebody has been sick for a long time (= p) they will not look too great (= q). Presumably, this particular entailment is in the CG as part of general world knowledge. Together, the three conditions are intended to ensure the anaphoricity and issue-resolving categorical nature of *eben*, as will be shown next.² The pre-state of the discourse that licenses A's utterance of (13-b) is

²Müller (2018: 228f.) assigns slightly different use-conditions to *halt*. According to her, *halt*

shown in Table 4. By uttering (13-b) with *eben*, *A* publicly commits to p , which by way of modus ponens and the CG-entailment $p > q$ results in a commitment to q as well. As a result, the space of *A*'s discourse commitments is updated with both p and q . This also resolves the issue of whether q , and the *CG* is updated with both p and q , as shown in Table 5. In Müller's (2018) account, then, the issue-resolving nature of *eben* is formally reflected by the fact that there are no more issues to be resolved on the Table. This is achieved by the combination of *A*'s public commitment to p and the default CG-entailment $p > q$. As will be shown next, though, this apparent success comes at a cost.

A	Table	B
	$q \vee \neg q$	q, p
$cg : p > q \in cg$		

Table 4: Discourse state before *eben*-utterance; adapted from Müller (2018: 225)

A	Table	B
q, p		q, p
$cg : \{p > q, p, q\} \subset cg$		

Table 5: Discourse state after *eben*-utterance (13-b), modified from Müller (2018: 226)

3.3 Problems

Müller's (2018) specific analysis of the meaning of *eben* in the Table Model faces at least three problems. First, the analysis requires the *eben*-proposition p to be part of the addressee's set of discourse commitments (*DCs*) before the sentence with *eben* is uttered. This is problematic since *DCs* are NOT belief states as they do NOT contain privately entertained beliefs. According to Farkas and Bruce (2010: 85), "[t]he discourse commitment set of a participant *A* at a time t in a conversation c contains those propositions *A* has publicly committed to in the course of c up to t and which have not (yet) become mutual

merely presupposes that the addressee *B* of the asserted *halt*-proposition p be publicly committed to some proposition q that is defeasibly entailed by p , and speaker *A* publicly commits to this defeasible entailment $p > q$. Its weaker interpretation follows from the fact that the entailment is not part of the mutual *CG*, thereby leaving room for alternatives.

commitments.” In other words, in the original Table Model, public commitment proceeds through explicit assertion (or silent approval of *ps*-content with a responsive discourse move), but such public discourse commitments to *p* do not normally precede an utterance of *eben p*. In any event, the analysis would predict the following discourse sequence, slightly modified from (13) above, to be fully acceptable, contrary to fact. If anything, A’s final *eben*-utterance feels very much redundant.

- (14) a. B: Levi war lange krank. Er sieht schlecht aus. (= $p \wedge q$)
 Levi was long sick he looks bad PRT
 ‘Levi was sick. He doesn’t look well.’
 b. #A: Er war eben lange krank. (= p)
 he was PRT long ill
 ‘He has been ill for a long time after all.’

The second problem concerns the fact that the defeasible causal or consequential entailment $p > q$ is built directly into the use-conditional meaning of *eben*. It is far from clear, though, that all instances of *eben* rely on such a defeasible entailment. Consider again the summarizing use of *eben* in (9) above. If anything, the entailment would be the trivial strictly logical entailment from $p_1 \wedge p_2$ to p_1 and p_2 , respectively. Finally, the focus-sensitivity of *eben* observed in (11) would require an enrichment of the original Table Model such that it can deal with more fine-grained issues. While this seems certainly feasible, it leaves open the question of how this relates to the $p > q$ -entailments that are taken to be a basic meaning component of *eben* in Müller (2018).

To sum up, the analysis in Müller (2018) faces some technical and empirical problems. While a table-based analysis of the meaning of *eben* does not appear impossible, it is not entirely clear what exactly such a model would look like. With this in mind we now turn to the Wolof particle *daal* and its analysis in Jordanoska (2020).

4 The view from Wolof *daal*: A QUD-approach (Jordanoska 2020)

Wolof is a Senegambian language with basic word order SVO(X) from the Atlantic sub-family of the Niger-Congo phylum, spoken mostly in Senegal and Gambia. It is a noun class language with no case marking but SUBJ agreement and focus inflection on the verb. Every Wolof clause contains exactly one *verbal conjugation*, which appears pre- or post-verbally and which comes with changing form depending on person and number, aspect, mood, and the syntactic status of the focused element (Robert 1989). In addition, focus in

Wolof is sometimes marked by movement to the left periphery (Jordanoska 2020: 53). (15-a) illustrates for a canonical clause, and (15-b) for an object focus cleft.

- (15) a. Ayda ak Jeynaba lekk-na-ñu [ceeb b-i] [ci kër
 A. and J. eat-FIN-PL rice NC-DEF.PROX P house
 g-i]
 NC-DEF.PROX
 ‘Ayda and Jeynaba ate the rice at the house.’ (Tamba et al.
 2012: 893)
- b. [Gato b-i] l-a [xale yi lekk]
 cake NC-DEF.PROX XPL-COP child NC-DEF.PROX eat
 ‘It’s the cake that the children ate.’ (Tamba et al. 2012: 893)

4.1 The Wolof particle *daal*: Its use and distribution (Jordanoska 2020: §3)

The conclusive discourse particle *daal* has the same four core occurrences as its German counterpart *eben*: We see its conclusive sentence-relating use in (2) above and in (16), and its occurrence in advice imperatives in (4). Same as *eben*, *daal* furthermore occurs in ignorance contexts in which it signals lack of information, cf. (17),³ and it also occurs as a repetitive summarizing particle in (18) (Jordanoska 2020: 66, 68, 64):

- (16) Context: Speaker is explaining what the fraud-related issues are with the system of collecting signatures to in order to 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:
- a. Moo tax ma xam ni daal élection
 SFOC.3SG cause 1SG.S know COMP PRT election.FR
 y-i di ñew bu si Yàlla def-ul sutura
 NC.PL-DEF.PROX IPFV come if LOC God make-NEG.3SG respect
daal moom, mën na am safaan
 PRT moom can CLFOC.3SG have woe
 ‘If God does not help us, there may (G: **eben**) be problems.’
 (Jordanoska 2020: 66)

³Jordanoska (2020) labels this instance of *daal* as in any *case-daal*

- (17) a. ‘Do you think someone else could have a different view?’
 b. Mën na nekk de. waaye de, boo xol-ee daal
 can CLFOC.3SG exist de but de if.2SG look-PFV PRT
 lu-m la-y njëkk-a, jox daal a-b kanaara
 what-3SG.S 2SG.O-IPFV be.first-VL give PRT INDF-NC.SG duck
 la. Walla a-b picc... *picc walla kanaara daal.*
 CFOC.3SG or INDF-NC.SG bird bird or duck PRT
Ci mala yooyu la daal.
 LOC animal those CFOC PRT
 ‘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.’
- (18) Context: I see a tree in it. I also see houses in it....
 a. Waaw, gis naa ci garab ak a-y kër daal.
 yes see CLFOC.3SG LOC tree and INDF-NC.PL house PRT
 ‘Yes, I see (G: **eben**) a tree and houses in it.’
 (Jordanoska 2020: 64)

Summing up, the Wolof conclusive particle *daal* occurs in the same environments as German *eben*. Same as *eben*, it does not seem to require the interlocutor’s previous discourse commitment to its prejacent *p*. Like *eben*, *daal* has an apodictic, conclusive character, and its central function seems to consist in resolving issues. Finally, *daal* cannot occur out-of-the blue, as evidenced by its infelicity in warning imperatives:

- (19) Context: Your friend wants to cross the street in heavy traffic.
 a. Moytu-l #daal/ de!
 be.careful-IMP.SG PRT PRT
 ‘Be careful!’
 (Jordanoska 2020: 71)

We therefore conclude that *daal* resembles *eben* in being discourse-anaphoric and issue-resolving, and that the two particles should receive a unified analysis.

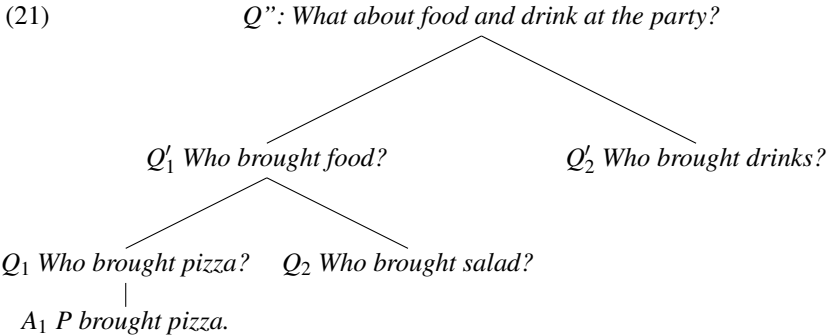
4.2 Jordanoska (2020): A QUD-analysis of *daal*

In order to capture the anaphoric and issue-resolving nature of *daal*, Jordanoska (2020: 74ff.) gives the informal characterization of its use-conditional meaning in context *c* in (20-a). (20-b) provides a more formal variant.

- (20) a. $[[daal]]^c \approx$ 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.

- b. $[[daal S]]^c \approx$ The speaker c_S considers $[[S]]$ their final answer to a super-question that (i) dominates *daal S*, and (ii) is the root of a strategy.

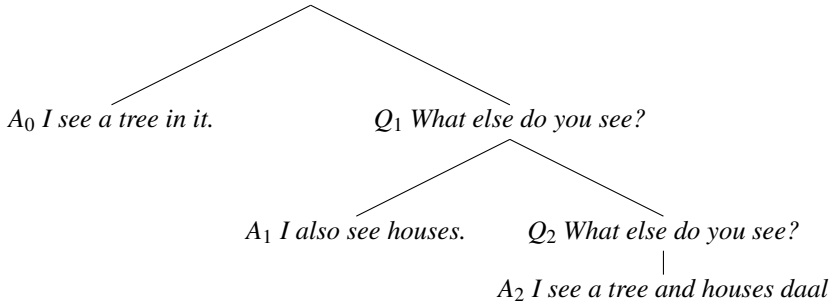
The notion of a question-based *discourse strategy* here refers to a coherent sub-part of a discourse, or a D-tree, the parts of which are structurally related by dominance and linear precedence, and which aims at the settling of a particular issue of interest (Roberts 2012, Büring 2003, Zimmermann 2014, Riester et al. 2018, i.a.). D-trees consist of super-questions and their daughter *sub-questions* that are all attached at the same level. Furthermore, Riester et al. (2018) propose to attach follow-up questions to an answer as sisters to that answer. On the basis of such D-tree structures, Büring (2003: 518) defines a *strategy* as "any subtree of a D-tree which is rooted in an interrogative move". For instance, the following D-tree contains a strategy consisting of Q'_1 , Q_1 , Q_2 , and A_1 , which is rooted in Q'_1 , to the exclusion of Q'_2 . In (21), Q'_1 and Q'' function as super-questions to A_1 , whereas Q_1 is its immediate QUD.



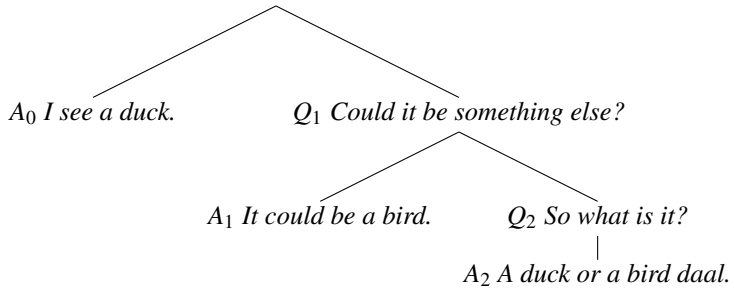
Notice that the meaning of *daal* in (20) captures its two essential discourse-semantic properties: Its discourse-anaphoric nature follows from the fact that the *daal*-utterance forms part of a larger question strategy including some root super-question. Its inquiry-terminating or issue-resolving nature follows from the fact that *daal* marks the final answer to this super-question.

With these background assumptions in place, Jordanoska (2020: 74ff.) assigns the D-tree analysis in (22) to the repetitive summarizing context in (18). Notice that the *daal*-utterance is the final answer to the super-question Q_0 , which forms the root of a strategy, thereby licensing the use-conditional meaning of *daal* in (20). Similarly, the context in (17), in which *daal* expresses lack of information, can be analysed as in (23).

(22) Q_0 What do you see in the picture?



(23) Q_0 What do you see in the picture?

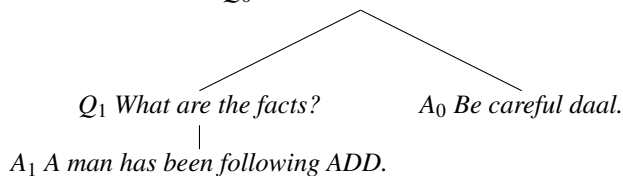


The election example in (16) receives a similar analysis, where the super-question Q_0 *What do you think about the upcoming elections?* functions as the root of a complex question strategy with sub-question Q_1 *What about the signature system*, its answer A_1 *The system poses problems* and sub-question Q_2 *What are the problems?* and its sub-ordinated subsub-questions $Q_{2.1}$ *Do people think about what they sign?*, and $Q_{2.2}$ *Do people pay for a signature?*, and their corresponding sub-answers. The *daal*-utterance provides the final answer to resolve this strategy, and it is attached immediately under Q_0 , i.e. as a sister to Q_1 . This last example is particularly telling because it shows that the root of the strategy must not be a super-question of the *daal*-answer as such – as long as it is the super-question to SOME part of this strategy.

Even though Jordanoska (2020) does not provide an explicit analysis of *daal* in advice imperatives, such as (4), such examples can be analysed in full parallel to (23) and (22) above. The super-question Q_0 with all advice-imperatives is *What should ADD(ressee) do?*, which dominates the sub-question Q_1 *What are the facts?* and its answer. The *daal*-utterance conclusively settles the issue in providing the final answer in this strategy. This is shown schematically in (24) below.

(24) a. Moytu-l **daal!** 'Just be careful!'

b. Q_0 What should ADD do?



To sum up, the discourse-semantic analysis of *daal* in (20) can account for all its attested occurrences in a range of – at first sight – quite heterogeneous contexts. Moreover, as pointed out in Jordanoska (2020: 77ff.), it makes two additional predictions on the distribution of *daal*: First, *daal*-utterances should be infelicitous out-of-the-blue since they mark the final answer to some QUD. For a QUD to arise, there must be context. A case in point are warning imperatives, which typically come without a preceding context and do not license *daal*, cf. Jordanoska (2020: 79). Second, *daal* should be infelicitous in simple Q-A-strategies in which an answer directly settles an immediate QUD, with no intermediate steps. In such direct Q-A-pairs, there is no super-question required for the licensing of *daal*.

Whereas the second prediction is not explicitly discussed for Wolof *daal*, we observe that the same constraint applies to German *eben*. Next to its anaphoricity and its conclusive character, *eben* is also infelicitous in direct answers to a simple QUD, in the absence of a super-question, even if the particle is meant to settle the issue, cf. (25):

(25) a. Context: Who told us the biggest nonsense yesterday?

b. #Der Gianni hat **eben** den größten Quatsch erzählt.
 the Gianni has PRT the biggest nonsense told
 'Gianni told us the biggest nonsense.'

To my knowledge, this property of *eben* has not been explicitly addressed in previous literature. Together with the other two discourse-semantic properties of anaphoricity and inquiry-termination, this motivates a unified QUD-based analysis of Wolof *daal* and German *eben*, which eschews the problems of the table-based model.

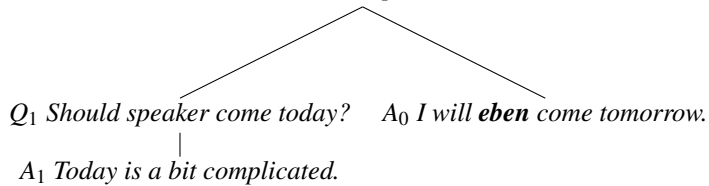
4.3 Extending the QUD-analysis to *eben*

Jordanoska's (2020) analysis of *daal* extends directly to standard instances of German *eben* if we assign this particle the same discourse-semantic meaning from (20):

- (26) $[[\textit{eben S}]]^c \approx$ The speaker c_S considers $[[S]]$ their final answer to a super-question that (i) dominates *eben S*, and (ii) is the root of a strategy.

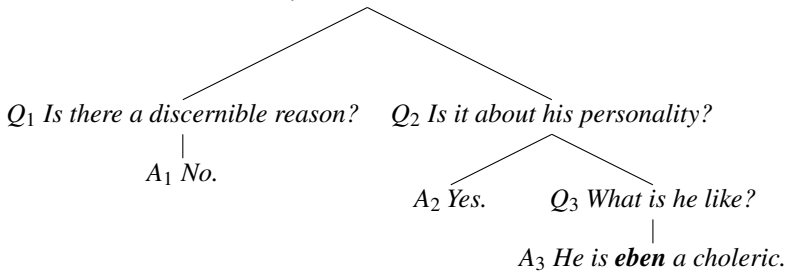
Refraining from repeating the Wolof analysis for the German advice imperative in (3), we analyse the standard inquiry-terminating occurrence of *eben* in (1) as follows:

- (27) a. Gut, komm ich **eben** morgen. ‘Alright, I will come tomorrow then.’
 b. Q_0 *When should speaker come?*



For example (7), we propose the QUD-structure in (28). Crucially, given what we said on the impossibility of *eben* in answers to immediate QUDs without additional sub-questions, the felicitous occurrence of *eben* in (7) points to the presence of a more complex question-strategy than that indicated by a simple direct answer to a *why*-question without *eben*.⁴

- (28) a. Er ist **eben** ein Choleriker. ‘He’s a choleric alright.’
 b. Q_0 *Why did he make noise?*



Summing up, assuming the lexical meaning in (20) for German *eben* allows for a unified cross-linguistic analysis for Wolof and German, and it provides an

⁴This is evidenced by the fact that the *eben*-utterance in (28-a) is infelicitous as an answer to the direct *why*-question in (i-a). Conversely, the omission of *eben* in (7) above also leads to some discourse deviance, as the absence of the question-evoking particle makes it difficult to reconstruct the underlying chain of implicit questions, cf. (i-b):

- (i) a. Q: Why did our neighbour make noise? A: Er ist (# *eben*) ein Choleriker.
 b. B: Our neighbour made a lot of noise today. A: Er ist # (*eben*) ein Choleriker.

account for the parallel distribution of the two particles in discourse. In particular, the analysis gives an elegant account of the three characteristic discourse-semantic properties of *eben* without running into the empirical and conceptual problems of the table-based model discussed in Section 3.3: (i.) its discourse-anaphoricity; (ii.) its inquiry-terminating nature; and (iii.) its reliance on more complex discourse strategies than simple question-answer sequences. We conclude that a QUD-based analysis à la Jordanoska (2020) is superior to a table-based model when it comes to the analysis of German *eben*.⁵

5 Outlook: On the difference of *eben* and *ja*

We conclude our analysis of *eben* with a brief comparison to the German discourse particle *ja*, which has received much more attention in the formal semantic literature; cf. Jacobs (1991), Karagosova (2004), a.o.. Zimmermann (2011, 2018) suggests that German discourse particles fall into different semantic classes. Whereas some, such as *ja*, *doch*, and arguably *eben* have the organization of the flow of discourse as their primary function, others, such as *wohl* and *schon*, serve to express a modal (epistemic) modification of their prejacent; cf. Zimmermann (2011, 2018) for details. The question that we would like to address in this section is whether all discourse organizing particles, and in particular *eben* and *ja*, behave alike in semantic terms, or whether they sub-divide into further sub-classes.

At first, this question would appear to receive a negative answer, as the two particles have some properties in common. Same as *eben*, *ja* is categorical and issue-resolving, and it presents the content of its prejacent as non-debatable, cf. (29). Moreover, *ja* is also illicit in direct answers to an immediate QUD without sub-questions, cf. (30).

- (29) Katharina ist *ja* Professor-in in Frankfurt/Main.
 Katharina is PRT professor-FEM in Frankfurt/Main
 ‘Katharina is professor in Frankfurt on the Main, y’know.’
- (30) a. Q: Who won the match yesterday?
 b. Japan hat (#*ja*) das Spiel gewonnen.
 Japan has PRT the match won
 ‘Japan has won the match, y’know.’

On closer inspection, though, there are a number of important differences.

⁵We agree with previous authors that *halt* should come with a related but weaker reading. One possibility would be that *halt* simply indicates that the proffered proposition makes reference to some super-question while dropping the condition that the *halt*-utterance is necessarily the final answer. This would leave sufficient room for alternatives.

First, *ja* is non-anaphoric and can be used out-of-the blue. Second, *ja* is felicitous with modalised subjective statements, whereas *eben* is not, cf. (31).

- (31) a. Q: Where is Katharina?
 b. Keine Ahnung. Vielleicht ist sie **ja** / **#eben** im Kino.
 no idea perhaps is she PRT / PRT in.the cinema
 ‘No idea. Perhaps she is at the movies.’

In view of (31), Schneider (2022) takes up an original idea by Jacobs (1991) and proposes that *ja* is not sensitive to QUD-structure. Instead, it functions as a modifier on speech-act operators: *ja* marks a special subtype of assertions by modifying their assertive force such that the prejacent proposition is directly pushed into the Common Ground without placing *p* on the table. In other words, *ja* indicates that there is no issue to be settled. This is possible (i.) whenever *p* is contextually grounded (Clark 1992) in the preceding discourse, or by the extra-linguistic context, or through world knowledge, or (ii.) with subjective epistemic statements, such as (31). What is added to the CG in case of (31-b) is the proposition *p* in (32), according to which the speaker thinks it possible that Katharina went to the movies.

- (32) $p = \lambda w. \forall w' \in DOX(\text{speaker}, w): \exists w'' \in EPIST(\text{speaker}, w') \wedge \text{Katharina goes to the movies in } w''$

Crucially, such subjective speaker commitments are non-negotiable and can be added to CG without further ado, i.e. without negotiation and acceptance by the other discourse interlocutors. Schneider (2022) models this meaning contribution elegantly in the Table Model from Section 3.1 above: *ja*-modified assertions add propositions directly into the CG without placing them onto the table, and without modifying the projected set. The categorical flavour of *ja* follows directly: *ja*-clauses do not raise issues in the first place instead of resolving issues, which is what *eben*-utterances do. The non-anaphoricity of *ja* follows since *ja*-utterances do not make reference to an issue that is raised in the form of a question-based strategy. The infelicity of *ja* in direct answers to immediate QUDs follows if answers to genuine questions must be placed on the table for acceptance by the other discourse interlocutors.

Given the different discourse-semantic effects of *eben* and *ja*, we tentatively conclude that different German discourse particles should receive different formal treatments. Some, such as *ja*, make direct reference to the updating of information states of the interlocutors, and they can therefore be adequately modelled in the Table Model (Farkas and Bruce 2010). Others, such as *eben* and *halt* make reference to the flow of information and the development of issues in a question-based discourse game, and should therefore be modelled with the help of QUD-trees, cf. Roberts (2012), Büring (2003), Riester et al. (2018).

For a unified treatment of all discourse particles, this finding would seem to call for a richer unified model that registers (i.) the interlocutors' knowledge and commitment states, and (ii.) the development of issues in a discourse in the form of questions. While a possible candidate for such a model may be the *Commitment Space*-model of Krifka (2015) et seq., we will have to leave the the quest for a unified model of different discourse particles for another occasion. The same holds for the investigation of particle systems in other African languages beyond Wolof. Alles Gute, liebe Katharina!

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