3-30-2018

Evidentiality and Undirected Questions: A New Account of the German Discourse Particle wohl

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Abstract

This paper presents novel data on the German discourse particle 'wohl', which has been analyzed as a marker of uncertainty by Zimmermann (2008), and argues for treating 'wohl' as an inferential evidential. The argument is twofold. First, in declaratives 'wohl' is felicitous in contexts the respective modified proposition is known to be true, which is incompatible with an account in terms of uncertainty. Second, the distribution of 'wohl' in interrogatives is more complex and more restricted than assumed by the standard account: Following Truckenbrodt (2006), I assume that V2-interrogatives are undirected questions that can be licensed by 'wohl' but whose undirectedness effect is independent of 'wohl'. V-final interrogatives, on the other hand, are canonical directed questions but can only host 'wohl' when targeting content that cannot be known directly. The final analysis is couched in the framework of Murray (2010), proposing that 'wohl' contributes a not at-issue restriction of the common ground to those worlds in which the speaker (in declaratives) or addressee (in interrogatives) has inferential evidence.

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1 Introduction

The German discourse particle *wohl* [1] has been analyzed as a marker of uncertainty by Zimmermann (2008, 2011) (see also Eckardt 2015) that may best be translated into English as *presumably*, as in the declarative sentence in (1). For interrogatives, Zimmermann takes *wohl* to indicate a request for a less committed answer, as in (2).[2]

(1) Hein ist **wohl** auf See.   *declarative*
    H. is WOHL at sea
    'Presumably, Hans is at sea.'
    (Zimmermann 2008, (1b), *my translation*)

(2) Hat Hania **wohl** auch ihre Chefin eingeladen?   *interrogative*
    Has H. WOHL also her boss-fem invited
    'What is your guess: Did she or didn't she invite her boss?'
    (Zimmermann 2008, (7b))

This paper presents novel data against Zimmermann (which I will refer to as the standard account) that is twofold. First, *wohl* can occur in declaratives in contexts that are incompatible with an account in terms of uncertainty. Second, I will argue that the distribution of *wohl* in interrogatives is more complex than Zimmermann assumes insofar as it can only occur in a question without an accessible answer. Moreover, the contribution of *wohl* in interrogatives interacts with the T-to-C movement of the verb, for which I will adopt Truckenbrodt's (2006) proposal that V-final interrogatives are undirected questions whose speech act lack an addressee. In light of this data, I will propose an account of *wohl* as an inferential evidential, opening up interesting cross-linguistic connections with "evidential" languages like Cheyenne (Murray 2010).

The structure of this paper is as follows. Chapter 2 and Chapter 3 present a brief sketch of the standard account and the novel data for declaratives and interrogatives respectively. The proposed analysis is given in Chapter 4. Chapter 5 elaborates on the mentioned cross-linguistic connection and Chapter 6 concludes the paper.

2 *wohl* in Declaratives

According to the standard account by Zimmermann (2008: 202), "*wohl* expresses a certain degree of epistemic uncertainty about the proposition of the clause it occurs in". Evidence for this characterization comes from a restriction against *wohl* in factive attitude contexts, either cross-sentential

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[1] German discourse particles are standardly assumed to resist stress but there are a few exceptions - including *wohl* - where a discourse particle has a stressed variant that differs in meaning and is therefore treated as a separate lexical item (although there have been unifying approaches). I will focus solely on unstressed *wohl* here.

[2] Another common property of German discourse particles are their idiosyncratic sentence type restrictions. In the case of *wohl*, only declaratives and interrogatives license the occurrence of *wohl*, while imperatives do not.

(3a) or in embedding (3b). Zimmermann (2008) captures the meaning of *wohl* via an ASSUME operator that indicates weakened commitment towards a proposition *p* by the speaker (in declaratives) or speaker and/or hearer (in interrogatives) (4).

(3)   a. #Ich weiß genau, wo   Hein ist. Er ist **wohl** auf See.
          I   know for-sure where H.   is he is WOHL at sea
          'I know for sure where Hein is. Presumably, he is at sea.'

      b. #Ich weiß genau, dass Hein **wohl**   auf See ist.
          I   know for-sure that H.   WOHL   at sea is
          'I know for sure that Hein presumably is at sea.'
          (Zimmermann 2008, (4a,b), *glosses for (3b) added*)

(4)   ⟦ wohl p ⟧ = ASSUME$_x$ (p) (with x = speaker, hearer, or both)

Contra this account, there are cases when *wohl* can be used in a context where the proposition it modifies is known to be true. For instance, consider the dialogue in (5). In the context of the guessing game, Pascal is shown to be wrong, as explicitly stated by Mordecai. However, it is felicitous for Pascal to reply with *wohl*, despite the fact that the modified proposition *Pascal was wrong* is known to be true in the context. Thus, the data is incompatible with an account in terms of uncertainty. Moreover, when we look at adverbials that are close to the meaning of *wohl* in other contexts, we see that both strong and weak epistemic adverbials like *wahrscheinlich* ('probably') or *möglicherweise* ('maybe') are infelicitous while an evidential adverbial like *offenbar* ('obviously') is acceptable.

(5)   [*Context*: Pascal and Mordecai, bored during the soccer break, are playing a guessing game.
      Mordecai: Guess how much Tianjin Quanjian is offering Aubameyang.
      Pascal: 20 million?
      M: You are wrong, it's 34 million!]
      P: Hm, da   lag ich { **wohl** / offenbar / #wahrscheinlich / #möglicherweise } falsch.
          well there lay I   WOHL obviously probably   maybe   wrong
          'Well, I was WOHL wrong.' ≈ 'Well, looks like I was wrong.'

Another example that goes into the same vein is shown in (6). After years of amnesia (that were profitable for semanticists and philosophers), Ernie Banks finally remembers his life as a baseball player and is told by the nurse about his life in oblivion. Again, it is felicitous to use *wohl* in his reply, modifying the proposition *I could not remember* (leaving aside the modal here), although it is evident that he could in fact not remember. Furthermore, we observe the same pattern of acceptability with respect to the alternative adverbials.

(6)   [*Context*: Ernie Banks has recovered from his amnesia and is told by the nurse how he couldn't remember any of the things that had happened to him before his accident, and of all the visitors he had. Ponderingly (and suddenly able to speak German), he says:]
      Ich konnte mich {**wohl** / offenbar / #wahrscheinlich / #möglicherweise} nicht erinnern.
      I   could   me   WOHL obviously probably   maybe   not remember
      'I could WOHL not remember.' ≈ 'Seems like I couldn't remember.'

I conclude from these examples that an account à la Zimmermann (2008) in terms of uncertainty is not sustainable. Rather, I propose that *wohl* in declaratives is an indicator of the speaker's evidence, as supported by the overlap with the evidential adverbial in (5)-(6). In contrast to a (plain) epistemic modal, an evidential simply encodes a source of evidence and is thus compatible with a proposition whose truth-value is known.[3] However, it is also for this reason that the use of *wohl* usually conveys a lack of commitment insofar as the relativization to a particular source of evidence is pragmatically weaker than an assertion without it.

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[3]It should be noted that in both examples provided here the proposition is true. I was not able to find an example with a known *false* proposition. Future research will have to show whether this data gap can be filled or, if not, whether there is something deeper about it.

An obvious next question is what kind of evidence *wohl* encodes. To find out, I will follow the classification by Willett (1988) and adopt examples from Matthewson 2015 originally used to investigate the epistemic modal *must*. For reasons of space, I will provide a summary in the Table 1 below and restrict myself to a few crucial examples.

	Direct Evidence			Indirect Evidence		
	Visual	Auditory	Other senses	Reported (trustworthy)	Reported (untrustworthy)	Inferred
must	✗	✗	✗	✗	✗	✓
wohl	✗	✗	✗	✗	✗	✗ / ✓

Table 1: Summary of data from Matthewson (2015: (9)-(19)) on *must* and its application to *wohl*

As representative for the first three columns indicating types of *direct* evidence, (7) shows the infelicity of *wohl* in such contexts. Regarding reportative evidence, *wohl* is infelicitous with both trustworthy and untrustworthy reports (depending on the assumed reliability of the source of the report, here Belinda), as (8) shows.

(7) [*Context*: The speaker sees the rain.]
    #Es regnet **wohl**.
    it   rains   WOHL
    'It is WOHL raining.'

(8) [*Context*: Belinda tells the speaker that Bob is home.]
    #Bob ist **wohl**   zuhause.
    B.   is   WOHL at-home
    'Bob is WOHL home.'

A peculiar case is that of inferred evidence, as shown in (9). Although inferences seem to be what licenses *wohl* in most cases, as is true for (9), the felicity seems to depend on the speaker's attitude during the utterance. That is, it seems only felicitous as long as the speaker remains rather calm and disengaged from the danger that is looming in her kitchen. In contrast, if the speaker shows (the appropriate) fear as reaction to the possibility of her house burning down, the utterance becomes infelicitous. This is made overt in (9b) by adding an expressive *verdammt* ('damn').

(9) [*Context*: The speaker smells a smell like burning meat while sitting at her desk an hour after having put a casserole into the oven.]
    a. Ich habe **wohl**   das Fleisch verbrannt.
        I   have WOHL the meat   burned

    b. #Verdammt, ich habe **wohl**   das Fleisch verbrannt.
        damn   I   have WOHL the meat   burned
        '(Damn,) I did WOHL burn the meat.'

One possibility to account for the interaction of *wohl* with the speaker's attitude in (9) would be to tie it to a more general restriction against exclamatives such that the use of *damn* in fact turns (9) from an assertion to an exclamation.[4] However, there is some evidence against such a stipulation insofar as *wohl* can occur in exclamatives like (10). It should be noted, on the other hand, that these cases are rather idiomatic such that they pose a potential problem for most analyses of *wohl* anyway. I will thus leave further exploration of such cases for future research and conclude that the evidence source of *wohl* is best captured in terms of inferences from reasoning.

(10) Du hast sie   **wohl** nicht mehr   alle!
      you have them WOHL not   anymore all
      'Are you nuts?!'

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[4]This option has been suggested to me by Seth Cable.

Let's see how an analysis of *wohl* as an inferential evidential can account for the data in (5)-(6). For (6), Ernie's utterance would then convey that he has inferential evidence that he could not remember who he was during his amnesia. Of course, inferences are always inferences *from* something, here the stories he is being told by the nurse. This raises the question how inferential evidence is different from reportative evidence, since we saw that *wohl* was infelicitous in (8). Although solving this deeper issue would go beyond the scope of this paper, I want to suggest a tentative answer based on the data pattern so far and prefacing some of the discussion on interrogatives: While (8) is about observable facts, the content of the modified proposition in (6) is about mental states that are not "accessible" to a report. The respective evidentials are thus assumed to be correlated with the type of content they are used to convey.

In the case of (5), the picture is slightly different insofar as the inferences are based on the course of the game. That is, Pascal infers on the basis of his guess and the correct answer given by Mordecai that he (= Pascal) was wrong. As in (6), the targeted content seems to be of a rather abstract nature, concerning the falsity of a mental attitude of the speaker.[5]

3 *wohl* in Interrogatives

On Zimmermann's unified analysis of declaratives and interrogatives, *wohl* contributes the same ASSUME operator to questions but scopes over it in question formation to allow for a weakly committed answer. That is, for a polar question as in (11a) (repeated from (2)), rather than asking whether the addressee assumes that Hania invited her boss, it requests an answer that grants some degree in uncertainty, formalized in (11b). Crucially, the uncertainty is that of the hearer here, and may optionally include the speaker.

(11) a. Hat Hania **wohl** auch ihre Chefin   eingeladen?
          Has H.   WOHL also her boss-fem invited
          ≈ 'What is your guess: Did she or didn't she invite her boss?'
          (Translation according to Zimmermann 2008)

      b. ? ASSUME { Hania invited her boss, ¬ Hania invited her boss }

However, I want to argue that this characterization is slightly inaccurate and overlooks some of the more complex data. The use of *wohl* in interrogatives is much more restricted than the standard account assumes, both with respect to the linguistic form and the contextual parameters. For instance, a direct counter-example illustrating this point is given in (12). Although the given context should license the use of *wohl* along the translation predicted by the standard account, the question is rather marked.

(12) [*Context*: Patrick and Magda are sitting in a windowless office without any clocks where they have been working since morning. Since a long time has passed, they have no clue what time it is. Patrick asks:]
      ??Sag mal, wie spät ist es **wohl**   gerade?
      say   once how late is it WOHL currently
      'Tell me, what is your guess: What time is it currently?' (predicted transl.)

Furthermore, the contribution of *wohl* in an interrogative seems to interact in peculiar ways with the position of the (inflected) verb. (13a) below displays the canonical V2-syntax of a content question, which turns into an undirected question by adding *wohl*, as in (12) above. (13b), on the other hand, has V-final syntax, which is ungrammatical without *wohl*.[6] This raises the question to what extent (13a) and (13b) differ in meaning. To preface the following discussion, I will argue that V-final

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[5]Admittedly, assuming that the content influences the distribution of *wohl* is a rather radical reconception of previous accounts, whose merit will have to be shown in future research, for instance by considering corpus data or experimental studies. More generally, it seems important to consider the contexts in which *wohl* occurs rather than looking at isolated sentences, insofar as without context the content are the only cues available.

[6]V-final syntax would also be licensed in echo-questions, which show a different distribution however.

interrogatives are undirected questions, following Truckenbrodt (2006). V2 interrogatives, on the other hand, are close to Zimmermann's characterization in inviting the addressee to ruminate about something, if the hearer is in a position to do so (more on this in a second). I will discuss both variants in turn.

(13) a. Was hat Emma (**wohl**) gemeint?   *V2*
          what has E.   WOHL   meant
          'What did Emma WOHL mean?' ≈ 'What do you think Emma meant?'

      b. Was Emma *(**wohl**) gemeint hat?   *V-final*
          what E.   WOHL   meant   has
          ≈ 'I wonder what Emma meant. . . '

Let's start with the V2 case, which allows a directed question, as shown in (13a). But what renders (12) infelicitous then? I suggest that this is due to the content of the question, namely the degree to which an answer is accessible. That is, neither of the interlocutors in (13a) can be assumed to know the answer to the question since it concerns the thoughts of another person - something inherently impenetrable by another person's mind. On the other hand, using *wohl* in a question like (14) seems infelicitous because it concerns historical facts that are can be easily known.[7] One way to conceptualize this - as I will - may be in terms of a presupposition that the addressee has in fact inferential evidence,[8] with established or observable facts of the world being less amenable to basic reasoning. The example in (12) thus falls somewhere in between (13a) and (14) insofar as it is unclear what the addressee could reason from to answer the question, as well as the current time constituting a measurable fact of the world.

(14) #Sag mal, wer war **wohl** Deutscher Fußballmeister   1959?
      say   once who was WOHL German   soccer-champion 1959
      ≈ 'Tell me, who do you think was the German soccer-champion 1959?'

This proposal also accounts for the fact that *wohl* is often used in questions that are future-oriented - again an inherently unknowable matter -, for instance featuring the epistemic modal *werden* ('become'/'will'), as in (15).[9]

(15) Wer wird   **wohl** gewinnen?
      who become WOHL win
      ≈ 'Who's gonna win?'

Turning to V-final *wohl*-interrogatives, I will adopt Truckenbrodt (2006) by assuming that V-final interrogatives are undirected questions that lack an addressee. More specifically, Truckenbrodt argues that T-to-C movement of the verb is correlated with the presence of the addressee as a parameter in the speech act. That is, while a canonical V2 interrogative like (13a) from above can be put into speech act terms like (16a) which involves a request from a speaker S to an addressee A for some information, the undirected question act corresponding to a V-final interrogative is not directed towards an addressee, as in (16b).

(16) a. Formal: S wants **from A** that it becomes common ground what Emma meant   *V2*

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[7]Note that this is slightly different from saying that the infelicity originates in the speaker's assumption that the addressee knows the answer - it should be in principle acceptable to make a guess about something that is more of a fun-fact. However, it might be the case that *wohl*-interrogatives about what may be assumed to be general knowledge are more likely to be considered unacceptable without context because of implicit assumptions about the knowledge of the speaker.

[8]Thanks to Lisa Matthewson for raising this issue.

[9]An informal corpus study on Cosmas II (http://www.ids-mannheim.de/cosmas2/) of 49 *wohl*-interrogatives showed that in fact 25 contained a kind of modal. Of the remaining 24, 12 involved some kind of perspective shift similar to (13) targeting the thoughts of someone else. Although there was no overt marker for the remaining 12 interrogatives that would indicate the content of the question to be a matter of speculation, it seems reasonable to assume that the global context may serve this function as well.

b. Formal: S wants ‗‗‗‗‗ that it becomes common ground what Emma meant   *V-final*

Some evidence for this view comes from the infelicity of the V-final version of (15) in (17) be-
low. Whereas (15) is very natural in the provided context, the fact that the main function of a
TV-commentator is to provide commentary for her audience renders an unmotivated soliloquy prag-
matically infelicitous.[10]

(17) [*Context*: A TV-commentator during a tense race:]
      #Wer **wohl**   gewinnen wird?
      who WOHL win   become
      ≈ 'I wonder who's gonna win...'

Crucially, on Truckenbrodt's account, *wohl* does not contribute the undirectedness but is merely
'associated' with it. This is evidenced by the optionality - despite a preference for its presence
- of *wohl* in undirected polar questions like (18) which are usually introduced by *ob* ('whether').
Moreover, *wohl* is not the only discourse particle that can license V-final interrogatives, for instance
bloß in (19).[11] However, it is unclear whether there is an obvious meaning difference in (18) whether
wohl is used or not, which raises the question why it is still more natural and rather frequently used
in undirected questions. I assume that *wohl* still contributes its standard meaning in those cases and
is well suited to form undirected questions since it indicates that the speaker asks for inferential
evidence, that is, wonders to herself. The pragmatic oddity of asking oneself directly - although
in principle possible - is thus minimized insofar as the speaker gives away her lacking knowledge.
Moreover, the not at-issue status of discourse particles - in contrast to regular modals - allows the
contribution to fall outside the scope of the question act.

(18) Ob   Thuy (**wohl**) schläft?
      whether T.   WOHL sleeps
      ≈ 'I wonder whether Thuy's asleep...'

(19) Was Stefan *(**bloß**) macht?
      what S.   WOHL   makes
      ≈ 'I wonder what Stefan is doing...'

A remaining issue, before moving on to the analysis section, concerns the syntax of *wohl* (and other
particles like *bloß*). We saw that - although not contributing the undirectedness itself - *wohl* (and
bloß respectively) is required in V-final interrogatives like (13b) (or (19)) to render the structure
acceptable. So far, we have seen that questioning speech acts can be licensed by standard wh-
movement in V2-interrogatives (13a), a complementizer in polar V-final interrogatives (18) or a
discourse particle in V-final content questions (13b) & (19). As a tentative solution to this problem,
I will adopt ideas from Keine (2016) who argues that the verb position is correlated with the size
of the clause it occurs in such that V-final clauses lack a ForceP projection that V2 clauses have, as
illustrated in (20)-(21). Slightly diverging from this view, I assume that V2 and V-final sentences
do not differ in clause size but that a ForceP has to be made overt to render an utterance a felicitous
speech act.[12] This could either be done by verb movement, a complementizer or a discourse particle.
Such an approach to the syntax of discourse particles is in line with Zimmermann (2008, 2011) who
locates *wohl* as a sentence-type modifier at the ForceP level.

(20) *Structure of V-final finite clauses*
      [CP . . . [TP . . . [vP . . . [VP . . .]]]]

(21) *Structure of V2 clauses*
      [ForceP . . . [CP . . . [TP . . . [vP . . . [VP . . .]]]]]

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[10]Notably, this example requires some additional assumptions about speech acts in contexts where an ad-
dressee is present but not able to respond. Naively speaking, we might think of (17) as a rhetorical question.

[11]I am not aware of a proper analysis of *bloß* and will thus refrain from elaborating on the meaning of (19),
since it is rather difficult to intuit.

[12]Thanks to Rajesh Bhatt and Stefan Keine for this suggestion.

It has to be noted, however, that this proposal is only tentative, since it is simplifying some of the complex issues at the syntax-pragmatics interface. A direct counter-example (provided by an anonymous reviewer) is shown in (22). Although the use of *mag* ('may') is somewhat old-fashioned, it licenses a V-final interrogative independently of the discourse particle or a complementizer. On the other hand, it seems noteworthy that *mag* has a use as an epistemic modal quite similar to *wohl* and often co-occuring with it. Consequently, to avoid treating modal verbs differently from non-modal ones on a syntactic level, the data may (!) point towards a more semanto-pragmatic approach to the problem, with the presence of modal operators licensing speech acts due to the way their semantics are relativized to the knowledge of the discourse participants and thus making their presence overt. However, I do not have a solution to this problem and have to leave it for future research.

(22) Was Emma (**wohl**) gemeint haben mag?
      what E.   WOHL meant have may
      ≈ 'I wonder what Emma meant…'

Concluding this small excursion, we can move on to the proposed analysis in the next section.

4 Analysis

I will adopt Murray (2010) for the proposed analysis of *wohl*. I take her framework to be preferable to others for two reasons. First, it provides the means to capture the pragmatic status of *wohl* as contributing not at-issue meaning (Potts 2005), as shown by its resistance to a direct denial in B_1 in (23) (in contrast to the at-issue proposition, which can be challenged by B_2). Second, it takes the speech act level into account and provides a way to implement interrogatives as well as declaratives.

(23) A: Marlijn ist **wohl** in Köln.
         M.   is WOHL in Cologne
      'Marlijn is in Cologne, I guess.'
      B_1: #No, you don't have evidence that she's in Cologne.
      B_2: No, she's in Berlin.

Murray's framework breaks a speech act containing an evidential down into three components: (i) the presentation of what is at-issue, (ii) an evidential restriction, and (iii) an illocutionary relation. A formalization of the declarative in (23) is shown in (24) as an illustration.

The at-issue component is the proposition without *wohl* in the first conjunct, namely that Marlijn is in Cologne. The second conjunct represents the evidential restriction, which I represent as a primitive predicate INF for inferences, that restricts the common ground prior to the utterance to those worlds where the evidential restriction holds. INF takes as arguments a constant representing the discourse participant relative to whose informational state the evidential restriction holds, *i* for the speaker and *u* for the addressee, and the respective proposition *p*. We can thus think of this evidential restriction as a relation between the respective discourse participant and the modified proposition with respect to a particular source of evidence, in this case inferences.

Moreover, Murray uses two free variables v_0 and v_1 as update functions to bind the evidential restriction and the illocutionary relation respectively (which I will not go into here but can be seen as restricting the common ground via the evidential restriction (v_0) and then updating the common ground from there with the respective proposition depending on the illocutionary relation).

Finally, the illocutionary relation in the third conjunct is used to implement the illocutionary force in question, in the case of a simple assertion asking the addressee to update the common ground with the asserted proposition. The illocutionary relation is formally expressed as an ordering relation $\leq$ such that the initial common ground now contains the proposition in question (putting aside conversational moves of accepting or denying this update). However, since a declarative with *wohl* does not necessarily convey that the speaker is certain about *p*, I assume a weakened ordering relation $\leq_{must(p)}$, as proposed by Murray (2010) for the conjectural evidential (which seems to be quite close to *wohl* but does not receive a formal analysis).[13]

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[13]I take the conjectural evidential in Cheyenne and *wohl* to differ in the latter lacking a presuppositional

(24) $\lambda p.(p = \lambda w.\text{in-cologne}(w,\text{marlijn})) \wedge \text{INF}(v_0,i,p) \wedge p(v_0) \leq_{must(p)} p(v_1)$

Admittedly, this analysis does not say much about what counts as inferential evidence but simply proposes that there is such a primitive that can be linguistically encoded. However, I take this to be a general issue in the domain of evidentials, even though other types like reportative or sensory evidence seem intuitively easier to grasp. Nonetheless, I hope that the data I provided in the previous discussion, particularly with respect to which type of content can be targeted in a *wohl*-interrogative, suggests that language is in fact sensitive to inferential acts. Future research will have to show to what extent the data withstands additional inquiry.

For (V2-)interrogatives, I adopt Murray's Hamblin-semantics for questions as denoting sets of propositions for the at-issue proposal. An illustrative formalization for the interrogative in (25) is shown in (26), where the first two conjuncts represent the open proposition that there is something that Emma did (or that something applies to Emma). The evidential restriction only differs from the declarative in taking the addressee as argument rather than the speaker.[14] Lastly, the illocutionary relation is simply an equivalence relation that leaves the common ground unchanged since asking a question is a request for an update rather than the update itself.

(25) A: Was macht Emma **wohl**?
      what makes E.   WOHL
   'What do you think Emma is doing?'

(26) $\lambda p.\exists P(P(\text{emma}) \wedge (p = \lambda w.P(w,\text{emma})) \wedge \text{INF}(v_0,u,p) \wedge p(v_0) = p(v_1)$

On this account, the evidential restriction functions like a presupposition such that the question act is only felicitous if the addressee has inferential evidence regarding the relevant proposition. This explains the distribution of V2 *wohl*-interrogatives we saw before where questions about easily knowable content were infelicitous or pragmatically odd because it is unclear what would constitute inferential evidence there that would allow the speaker to assume the presupposition to be satisfied.

This analysis can be extended to V-final interrogatives by assuming that they represent questions that are uttered relative to the speaker's informational state, so only differ from (26) in having *i* instead of *u* as the argument of INF. Additionally, we have to assume that V-final interrogatives circumvent the presuppositional restrictions of V2 interrogatives because the person uttering the sentence and assessing the presupposition is also the one whose informational state serves as argument to the evidential predicate. That is, the speaker has privileged access such that any utterance seems undisputable.

This account takes the contrast between V2 and V-final interrogatives to be one that rests on pragmatic considerations rather than principled differences and predicts that there should be contexts for any V2 *wohl*-interrogative to be felicitous insofar as the presence of inferential evidence is sufficiently specified. I will leave it to future research to see whether this prediction is borne out or whether there is something deeper about V-final interrogatives.

5 Cross-linguistic connections

Before concluding the paper, I want to point out a potentially interesting connection between the data presented here regarding *wohl* and other languages with "proper" evidential systems like Cheyenne. Murray (2010) (see also Matthewson 2012 and Littell et al. 2010) reports an ambiguity that certain evidentials give rise to in interrogatives, illustrated in (27), a phenomenon she refers to as "illocutionary variability". While the interpretation in i. corresponds to the directed questions of V2-interrogatives, ii. maps closely to the undirected (or self-directed) V-final interrogatives we saw above.

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requirement against direct evidence, since the observation that *wohl* is compatible with a true proposition is one of the main points of this paper.

[14] An interesting avenue for future research might be trying to relate this switch to Truckenbrodt's (2006) account of how syntactic properties interact with the speech act level.

(27)   Tóne'še é-ho'eohtse-**sèstse**.
       when   3-arrive-RPT.3SG
       i. 'Given what you heard, when did he arrive?'
       ii. 'He arrived sometime, I wonder when.'
       (Murray 2010:75)

This parallelism may be seen as a promising link between the research traditions on discourse particles in German and languages with evidential systems like Cheyenne in the spirit of Kratzer & Matthewson (2009). For instance, the illocutionary variability of (27) may be governed by syntactic facts like T-to-C movement in German.

An additional interesting question concerns the type of evidential giving rise to illocutionary variability, contrasting the Cheyenne reportative in (27) with *wohl* as inferential.[15] Particularly with respect to the claims proposed here regarding how the targeted content restricts the distribution of the evidential, a cross-linguistic investigation seems most promising to support or falsify such a view.

6 Conclusion

This paper argued for treating the German discourse particle *wohl* as an evidential rather than a marker of uncertainty, as proposed by the standard account by Zimmermann (2008). For declaratives, I provided novel data that shows that *wohl* is felicitous in contexts where the truth of the modified proposition is known and therefore incompatible with an account in terms of uncertainty.

For interrogatives, I showed that the occurrence of *wohl* is more restricted than assumed on the standard account and interacts with verb movement from T to C. Following Truckenbrodt (2006), I assumed that V-final interrogatives are undirected questions that lack an addressee and require something to make a ForceP overt, which *wohl* (and other discourse particles) is able to. The apparent frequent use of *wohl* in V-final interrogatives was explained by its inferential semantics mapping closely to what an undirected act of wondering corresponds to. In V2 interrogatives, the occurrence of *wohl* was restricted (at least out-of-the-blue) by the content of the question such that only content with an inaccessible answer was felicitous. This was explained by a presuppositional restriction in *wohl*-interrogatives that the addressee has inferential evidence and the difficulty to conceive of what this evidence might look like for issues whose solution is observable.

Besides the question about the nature of inferential evidence, I want to point out two other open issues regarding *wohl* and the account proposed here. First, conceiving of *wohl* as an evidential would render German an interesting hybrid case with respect to its expressions of epistemic meaning insofar as it also has 'regular' epistemic modals.[16] This raises the question how *wohl* interacts with epistemic modals like *müssen* ('must'). One idea alluded to previously could be that epistemic modals pragmatically convey that the relevant content is inaccessible and thus license the requirements on having inferential evidence. Another idea might be that *wohl* restricts part of the pragmatically determined conversational background(s) of the modal. These two options would motivate the frequent co-occurrence from opposite sides, with either *wohl* making use of the modal or the other way around. A relevant difference between modals and discourse particles might be in terms of their (non) at-issueness that allow *wohl* to interact with meaning on the speech act level and at least superficially justify its existence.

A second interesting question concerns the behavior of *wohl* in embedded contexts. Zimmermann (2008) provides examples that suggest that *wohl* can be 'bound' by an attitude holder rather than be centered to the speaker, which is may be at odds with its not at-issue meaning. However, it has been shown that the perspective associated with other types of not at-issue meaning may have defaults that can be overridden. It may thus be interesting to see which perspectives are possible with *wohl* in embedded contexts.

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[15]Thanks to Lisa Matthewson for raising this issue.

[16]Thanks to Ailís Cournane for bringing this issue to my attention.

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