Expertise and common ground: an experimental investigation of Swabian *gell*

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Abstract: This paper investigates the Swabian confirmational *gell*, a particle employed for requesting confirmation from the addressee. The request can either target the proposition or the expertise of the speaker. Expertise is a purely pragmatic factor relevant for common ground management (Stalnaker, 1987). Results from a forced-choice response study confirm that *gell* shows variation in what an addressee can respond to. If the speaker communicates a contingent commitment (Gunlogson, 2008), the response targets the proposition. If the speaker does not communicate such a contingency, the addressee can both target the expertise and the proposition. The latter response type constitutes a renegotiation of expertise between the interlocutors. The addressee communicates with a confirmation of the proposition that s/he shares the speaker's expertise. A conversational model that incorporates confirmationals needs to be fully dialogical in nature due to this act of renegotiation. The subsequent conversational move needs to be reflected in the speaker's utterance and in the establishment of common ground. A consequence of this analysis is that the rising intonation on *gell*, independent of the target of the request, has to be considered as a Call on Addressee (Beyssade & Marandin 2006), rather than an intonational morpheme that turns an assertion into a question.

Keywords: Confirmationals, Common Ground, Contingency, Expertise

1 Introduction

Language is a game played by at least two players (Wittgenstein, 1953). For the pragmatic aspects of language, the gameplay is defined by a number of rules and assumptions the players have tacitly agreed on. Interestingly, these rules and assumptions can be renegotiated. German is a language rich in particles that bring these negotiations to the surface. This paper investigates the sentence-peripheral particle *gell*, which is a particle in Swabian, a dialect spoken in the South of Germany. The particle can be used for requesting a confirmation of the proposition (*p*) from the addressee (A). Alternatively, the particle can be used for requesting confirmation of a claim of expertise (EXP) about *p* by the speaker (S). The conversational properties of *gell* suggest that the particle has two different functions that can be expressed with the same form. This observation is confirmed in a small elicitation study. Results from a forced-choice response study will show that *gell* shows variation to what A can respond. Interestingly, A can target not only EXP, but also *p* with her/his response to the request of confirming EXP. If A responds with a confirmation of *p* to a request for a confirmation of EXP, A claims that s/he shares S's expertise about *p*. Such a response constitutes a renegotiation of EXP between S and A. A consequence of this analysis is that the rising intonation on *gell* has to be considered to be a Call on Addressee (henceforth: CoA; Beyssade & Marandin 2006). Ultimately, I will argue that EXP is a relevant factor for the management of common ground (henceforth: CG; Stalnaker, 1978). Due to the aspect of renegotiation, any model that represents the game of language needs be fully dialogical in nature in terms of anticipating and reflecting a subsequent conversational move. The remainder of this introductory section will address existing analyses of related phenomena and show how they inform the proposal for the analysis of the empirical problem. Section 2 will report and discuss the findings of a small, controlled prosody elicitation study testing the effect of EXP on the intonation of the confirmational. Section 3 will report and discuss the methods and findings of a forced-choice reply study investigating the effect

of EXP on the responses of A. Section 4 will then combine those findings into an analysis of the two functions of *gell* within a discourse model that incorporates the dialogical aspect of the utterance itself as well as the dialogical aspect of the reply this utterance anticipates. Only a discourse model incorporating both dialogical aspects will provide the means for fully understanding the properties of *gell*. Section 5 will conclude and indicate areas of future research.

1.1   The problem

A storyboard elicitation (Burton & Matthewson, 2015) with two different contexts revealed that *gell* has two different contexts of use. In a context where A, but not S is the source of knowledge about the truth of *p* (Gunlogson, 2008)*, gell* seems to request confirmation of *p* (1). In a context where S, but not A is the source of knowledge about the truth of *p, gell* seems to demand confirmation of the fact that S is that source (2). In the two storyboards below, which represent the two contexts of use, the last pictures differ in who the speaker is. Correspondingly, A is the source of knowledge about the truth of *p* in Figure 1. In Figure 2, it is S who is the source of knowledge about the truth of the *p*:

Context I: {Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the due day, he enquires from another tenant about his responsibilities.}

Figure 1: Storyboard for a context where A, but not S is the source of knowledge about the truth of *p*:

(1)   Am Samschdich wird hier d'Kehrwoch g'macht, gell?
      'On Saturdays, we do the sweep-cleaning here, PRT'

Context II: {Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the next due day, another tenant reminds him of his responsibilities.}

Figure 2: Storyboard for a context where S, but not A is the source of knowledge about the truth of *p*:

(2)   Am Samschdich wird hier d'Kehrwoch g'macht, gell!
      'On Saturdays, we do the sweep-cleaning here, PRT'

Both contexts of use make obvious that an utterance including *gell* goes beyond an assertion of *p*. This is in line with the literal meaning of the particle. Etymologically, *gell* is derived from Middle High German *gelte* (3Ps.Sg.Subj: 'so be it' (*Duden,* 2001)). The particle appears to form a request in (1), but a demand in (2). Linking these two functions back to the original meaning of *gell*, one can translate the function of the particle into a speech act along the lines of 'is it true that *p*?' for the requesting function and 'it is true that *p*!' for the demanding function. A further element added to the assertion of *p* is the rising intonation occurring on the particle, which communicates an expectation of a response. This expectation makes the utterance in (1) a request for confirmation, and the utterance in (2) a demand of confirmation, which goes beyond a plain combination of assertion plus question in (1) and assertion plus assertion in (2). For the sake of clarity, I will therefore refer to the particle as either *demanding gell* – indicated by an exclamation mark – or *requesting gell* – indicated by a question mark – depending on which function it fulfills in the individual context. It is important to understand that this form of notation does not correspond to a claim that there are two types of *gell*. Examples (1) and (2) comprise three different elements:

Table 1: Composition of an utterance containing *gell*

	utterance	gell	rising intonation
requesting gell	assertion of *p*	'Is it true that *p*?'	Respond!
demanding gell	assertion of *p*	'It is true that *p*!'	Respond!

1.2 Breaking down the problem into its components

The observation that each utterance consists of two different speech acts, as indicated by the first two columns of Table 1, is similar to Asher & Rees's (2007) proposal that English tag-questions are complex speech acts. Tag-questions are fusions of assertions and questions. Hence, they meet the criteria for both illocutionary forces. This is demonstrated by means of Sadock's (1971, 1974) diagnostics for illocutionary force. English tag-questions can co-occur with 'after all', an adverbial that exclusively occurs with assertions. They can also co-occur with 'tell me', which can only occur with questions. Tag questions can thus be considered as fusions of two separate speech acts.[1] The translations of the English examples from Asher & Reese (2007) demonstrate that these diagnostics can identify the illocutionary force of a German utterance just as they can for the English utterances:

(3) Es ist in Ordnung, wenn du deinen Artikel heute nicht mehr fertig schreibst.
'It's fine if you don't finish the article today.'

    a. Schließlich ist dein Berater außer Landes
      'After all, your adviser is out of the country.'

    b. # Schließlich ist dein Berater außer Landes?
      # 'After all, is your adviser out of the country?'

(4) a. # Sag mal, Peter hat ein Auto.
      # 'Tell me, Peter owns a car.'

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[1] Altmann (1983) makes a similar proposal for *rising declaratives* due to their prosodic properties.

b. Sag mal, hat Peter ein Auto?
   'Tell me, does John own a car?'

By the same criterion, the German tag-question *oder* and *requesting gell* can be identified both as a question and as an assertion. This does not hold for *demanding gell*; it fails the diagnostic for questions completely, and even the diagnostic for the assertion is somewhat marked. *Schließlich* marks a request of consent from A, which is at odds with the context of use for demanding *gell*. Again, the examples below are direct translations of examples from Asher & Reese (2007, p.15):

(5)   Schließlich kommt Julia, gell?/oder?/gell!
      'After all, Julie is coming, isn't she?

(6)   Sag mal, Jane kommt noch, gell?/oder?/#gell!
      'Tell me, Jane is coming, isn't she?'

Rather than interpreting *demanding gell* in an utterance such as (5) as a fusion of assertion and assertion, however, I propose to consider the respective utterance as a fusion of assertion and imperative ('Be it true that *p*!'). Support from this comes from another diagnostic: Downes (1977) reports that imperatives cannot co-occur with adverbials, such as *maybe*, *certainly*, or *hardly*. Again, this diagnostic reveals a different behavior for *requesting* and *demanding gell*.

(7)   a. Jane kommt [vielleicht]/[wohl kaum] noch, gell?
      b. #Jane kommt [vielleicht]/[wohl kaum] noch, gell!
         'Perhaps/hardly, Jane is coming, CONF?/!'

In brief, the descriptive distinction of the two functions surfacing in the two different contexts of use for *gell* receive confirmation in diagnostics that reveal the illocutionary force of the respective utterance. These diagnostics suggest to interpret an utterance containing *gell* with a requesting function as a complex speech act combining assertion and question; the demanding function corresponds to an utterance that forms a speech act combining assertion and command.

In search of an analogy for this two-sided behavior of *gell*, there are a number of related phenomena that worth considering. *Rising declaratives* (Gunlogson, 2003, 2008) have a function similar to that of *requesting gell*. Their speech act function can be described as a request of S for A to respond to *p* in order to signal that *p* is included in the CG. The corresponding utterance, given below in (8), however, is only licenced by a context of type I, where A is the expert, but not by a context of type II, where S is the expert. The same holds for the discussed tag-question *oder* (9).

Context I: {Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the due day, he enquires from another tenant about his responsibilities.}

Context II: {Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the next due day, another tenant reminds him of his responsibilities.}

(8)   Am Samschdich wird hier d'Kehrwoch gmacht?
      'On Saturdays, you do the sweep-cleaning here?'

(9)   Am Samschdich wird hier d'Kehrwoch gmacht, oder?
      'On Saturdays, you do the sweep-cleaning here, don't you?

Correspondingly to *rising declaratives*, the speech act function of tag-questions can be described as requests from S for A to confirm the truth of *p* in order for *p* to be included in the CG. It appears, then, that *gell* is exceptional among the phenomena discussed here in that EXP is relevant to the interpretation of its function in such a way that it can actually be licensed by two different contexts of use. A phenomenon for which this has been noted is the category of so-called *confirmationals*. Heim *et al* (2014) refer to particles such as Canadian *eh* as (addressee-oriented) confirmationals due to their function as requests for a confirmation of A's belief. Since this notion takes into consideration the belief of A, and thereby goes beyond a mere request for the truth of *p*, it can incorporate two different kinds of beliefs. In the initial description of *requesting* and *demanding gell*, these beliefs were associated with a propositional level and a level of EXP. I will come back to this distinction of belief levels in Section 4.

The third element contributing to the interpretation of utterances such as (1) and (2) is the rising intonation on the particle. In table 1, its speech act function was glossed as 'respond!' which corresponds to Beyssade & Marandin's (2006) notion of a 'call on addressee' (CoA). However, it is not a standard assumption to equate rising intonation simply with a CoA. Rising intonation is frequently associated with a requesting function that turns an assertion into a question (Truckenbrodt, 2012, 2013; Pierrehumbert & Hirschberg, 1990; Hirschberg & Ward, 1995). Yet, a rising intonation is not a necessary condition for a question: for German alternative questions, a falling intonation is obligatory, and for w-questions, a falling intonation is optional. On the other hand, there are speech acts with a rising intonation that do not constitute a question. Consider the following example from Truckenbrodt (2013, p. 2059):

(10)   {M. L. approaches a receptionist to find out whether he is in the right place for his
        appointment}
                      H*   H* H- H%
        My name is MARK LIBERMAN.

Truckenbrodt (2012) proposes that pragmatics – by means of salient propositions – determines the content of the question. The literal content of the question cannot be reconstructed. Rather, the rising intonation signals a request to add *p* to CG; *p* itself is not questioned (Truckenbrodt 2012). A general equation of a rising intonation with a question is too simple. This finds support in an experimental finding from Geluykens (1987), which suggests that intonation is not the deciding factor for other declaratives with a rising intonation. If a context provides sufficient pragmatic information for the interpretation of an utterance "rising intonation is shown to be virtually without impact" (p. 483). Additionally, Geluykens' (1987) report on a corpus search for rising intonation on rising declaratives reveals that only one in three rising declaratives occurred with a rise. The term *rising* declarative is therefore misleading. Defining rising intonation as a factor that determines a speech act turns out to be highly problematic. What remains as the most reasonable interpretation of a rise, then, is Beyssade & Marandin's (2006) CoA, which initiates turn-taking and is necessary to arrive at an agreement about a proposition between S and A. Such a conclusion is compatible with the data from Swabian *gell*. *Demanding gell* cannot be associated with a question despite its rising intonation. Associating the rise with a CoA, however, corresponds to the functional description that *gell* comes with a request or a demand to respond.

Another function of rising intonation is discussed in Gunlogson (2008). An assertion that expresses a commitment to *p* (Gunlogson 2003) is modified via rising intonation so that this commitment comes with a contingency upon a confirmation by A (Gunlogson 2008, p. 128):

(11) A discourse move μ committing an agent α to *p* is contingent upon ratification by an agent β, α≠β, if:

    a. β is implicitly authoritative with respect to p at the time of μ.

    b. It is inferable in the discourse context that α's commitment to *p* will be withdrawn unless the discourse move immediately succeeding μ has the effect of committing β to *p* as a source.

Contingent commitment is dialogical in nature. This is reflected by the fact that – via contingency – A is involved in the speech act as soon as S utters *p*. The claim that the discourse move is withdrawn if A does not confirm *p* adds another dialogical aspect. By making a contingent commitment to *p,* S already anticipates the nature of the response by A. The first dialogical aspect involves A as the source of ratification. The second dialogical aspect involves the response of A upon which the next discourse move is dependent. A dialogue will typically not end with a lingering request for confirmation. Nor will it end with a rejection of *p* since the first speaker is then forced to withdraw her/his commitment. The notion of contingent commitment is relevant in so far as it describes how so-called *rising declaratives* – the construction that is used for motivating the notion of contingency – have an additional level of meaning that communicates an expectation to respond. This level of response is also present in both contexts of use of *gell*. The data from *demanding gell* is problematic for associating contingency with a rising intonation. Together with the finding in Geluykens (1987) that so-called rising declaratives often occur without a rise, the properties of *gell* suggest that contingency has to be considered independently of the use of a rising intonation. What the latter encodes is the request for a response, i.e. a CoA. The reason why this CoA entails a call to ratify the contingent commitment in the context of a question, a rising declarative, a tag-question, and *requesting gell* is that in each of these cases, A is the source of knowledge about the truth of *p*.

1.3   Two functions – how many forms?

The different contexts of use and their different speech act properties of *requesting* and *demanding gell* clearly suggest a functional difference of the particle depending on the context. With respect to a form-meaning mapping, the obvious question to address is whether the two functions are encoded differently. Since the utterance in (1) and (2) is identical at the segmental level, the prosodic level is an area worth investigating. Despite the fact that *gell* occurs with a rise in both contexts of use, a more fine-grained study of the prosodic contours may reveal a significant difference. For the particle *hm*, Kaiser & Baumann (2013) differentiate between two different types of rising contours. These contours can be distinguished by whether the rise has a concave shape or a convex shape. The choice of intonation reflects whether the rise communicates a true request that marks a turn-taking or whether that requesting function is suspended, and so the turn-taking is inhibited. The former function is associated with a convex rise, the latter with a concave rise:
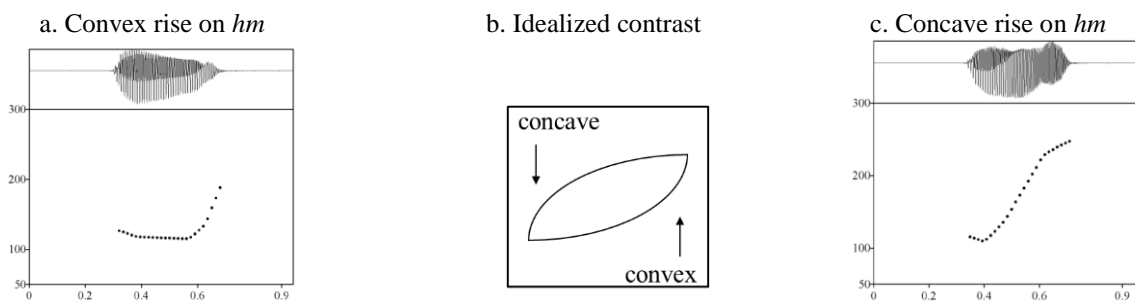
a. Convex rise on *hm* b. Idealized contrast c. Concave rise on *hm*

Figure 3: Shapes of a rising intonation on *hm*

An important step in the investigation of *gell* will thus be to test whether *demanding* and *requesting gell* truly have the same form, or whether the functional difference is encoded by different types of rising contours. This will be addressed by a small prosody elicitation study reported in Section 2.

1.4   Proposal

In light of the discussion of the existing literature and the observations from the functional description, I propose that the confirmational *gell* is sensitive to the status of EXP in a conversation. The requesting interpretation of the confirmational materializes if A is the interlocutor who can verify the truth of *p* (A = EXP); the demanding interpretation materializes if S is the interlocutor who can verify the truth of *p* (S = EXP). Support for this claim comes from the results of a forced-choice response-study I will report below (Section 3). The use of the concept of EXP is similar to Gunlogson's (2008) notion of 'source' which is based on the assumption that every commitment has a source for the truth of *p*. Instead of adopting Gunlogson's (2008) terminology, however, I prefer the term 'expert' in order to exclude contexts where the source of the truth of *p* is a present reason to believe.[2] This proposal makes the interpretation of *gell* dependent on a purely pragmatic, i.e. contextual, factor. What both interpretations of *gell* have in common is a CoA in the form of a rising intonation. If A is the expert, this CoA is interpreted as request to confirm the truth of *p* due to the contingent commitment of S's utterance. If S is the expert, the CoA is interpreted as a demand to confirm the status of EXP. Assuming that A is ignorant about the truth of *p,* S does not express a contingent commitment about the truth of *p*. A's response on the CoA therefore targets the EXP, not the *p*. This proposal rests on the assumption that the different functions of *gell* are not encoded linguistically. *Gell* is a confirmational that comes with a CoA in the form of a rising intonation, but the status of EXP of the two interlocutors will decide whether the commitment of S needs to be interpreted as a contingent one (in case of *requesting gell*) or not (in the case of the *demanding gell*). The following report of a prosody elicitation and a forced-choice reply study will confirm the ambiguity of the form and the role of EXP in the context of Swabian *gell*.

2   Prosody elicitation

A prosody elicitation for *demanding gell* and *requesting gell* was conducted in order to test whether there is a correlation of intonational contour and EXP. In order to isolate the intonation of the

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[2] This is simply for the sake of limiting the scope of the present discussion. A full conversational model needs to incorporate these contexts, and this is clearly the case for the source principle. In the context of mutual commitment, Gunlogson (2008) states that there can be an "independent source" if both interlocutors qualify as a source (117.)

confirmational, the host sentences had to match in their prosodic properties. Contrastive stress on the sentence initial constituent of the host sentence reduced interference of sentential focus on the intonation of the confirmational. The test sentences were constructed with an identical syntactic structure and an identical number of words and syllables. The target sentences were preceded by contexts that established the EXP of S or A, and contained verbs of demand or request, or at least verbs that were synonymous to either of them. Overall, there were seven target sentences, each with two context sentences, one of type I and one of type II. The context sentences established the status of EXP. A sample item is provided below:

(12) **Context I**: {Weil Max nach seinem Umzug nicht die anderen Mietern verärgern will, fragt er nochmal nach ob die Kehrwoche tatsächlich am Samstag gemacht werden muss.}

'As Max does not want to annoy the other tenants after his recent more, he inquires whether the sweep cleaning really has to be on a Saturday.'

Context II: {Der Hausverwalter weißt den neuen Mieter darauf hin, dass die Kehrwoche gefälligst nicht erst am Sonntag gemacht wird.}

'The building manager points out to the new tenant that he should not wait with the sweep-cleaning till Sunday.'

Target sentence: Am SAMSCHDICH wird hier d'Kehrwoch g'macht, gell?/!
'On a SATURDAY, you do the sweep-cleaning here, CONF'

The elicitation was conducted with two female, native speakers of Swabian, aged 29 and 28. Each pair of context sentence and target sentence was presented on a screen in front of the participants. The participants were first asked to quietly read the context sentence, and then to pronounce the test sentence with a context-appropriate intonation. Each subject saw each combination of context sentence and target sentence. Every combination was followed by a distractor. This distractor came in the form of a choice between two depicted items, which represented two types of food, sports, etc. The subjects then had to briefly explain their choice. The study lasted less than five minutes.

The intonational contours on the isolated confirmationals were analyzed with VoiceSauce (Shue 2010) and plotted with GGplot (Wickham 2006). A descriptive analysis of the F0 contours on the confirmationals does not reveal any significant findings. Figure 4 represents the contours of *demanding gell* and *requesting gell* for each subject separately. The F0 values for each item are represented in the background, the mean values are represented in the foreground with error ribbons representing the 95% confidence intervals:
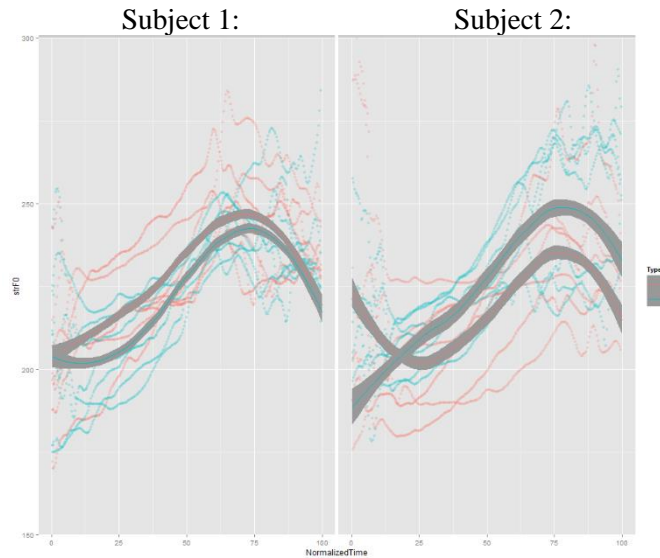
Figure 4: F0 values of *requesting* (blue) and *demanding gell* (red), times normalized

The mean pitch height (in Hz) and curve shape of the contours are inverted for the two subjects. While subject 1 has a higher mean F0 value over time for *demanding gell*, subject 2 has a higher mean F0 value over time for *requesting gell*. The shape of the mean F0 curve of subject 1's *requesting gell* resembles a rise of a convex shape, the mean F0 curve of *demanding gell* resembles a rise of a concave shape. For subject 2, it is the rise on *requesting gell* that appears to have a concave shape, and the rise on *demanding gell* appears to have a convex shape. There is good reason to neglect the fall toward the end of *gell*, which falls on the consonant /l/. The confirmational can be reduced to *ge*, which is why some of the items occurred with a reduced form of articulation of the final /l/. This may also explain the divide between the individual contours of *requesting gell* for subject 2. Overall, there is no stable pattern noticeable for the two contexts of use. The results do not show a correlation between EXP and intonational contour. This suggests that the difference in EXP is not mandatorily encoded via intonation. With respect to the shape of the rise, *gell* is unlike *hm,* which occurs with either a convexly shaped or a concavely shaped rise depending on its context of use (Kaiser & Baumann 2013). This rules out a comparison with *hm* despite the functional parallels of the particle with *gell*, which lead to the expectation that their intonational properties are similar. If the rises are to be described in those terms at all, this prosody elicitation study showed that both contour shapes can be used for contexts of use. As a common characteristic, it is only safe to conclude that *gell* always occur with a rise. What the findings from above do not exclude, however, is the potential of intonation to optionally encode that difference in function. A number of minimal pairs did in fact show a significant difference in the shape of the contour. This corresponds to the subjects' comments during the story board elicitation and the prosody elicitation study. Nevertheless, the ambiguity of the contours on average suggests that this encoding is not consistently present and thus cannot be considered to be a reliable signal.

3   Forced-choice response study

In order to verify the importance of EXP for the interpretation of *gell*, a forced-choice response study was conducted. The underlying assumption of this study is that a confirmational with a demanding interpretation does not allow a response that simply targets *p.* This assumption is based on the fact that *demanding gell* can only occur in a context where S can evaluate the truth of *p*, and

hence S's commitment is not contingent. Since contingency is geared toward the response of A, a forced-response choice appears to be the appropriate means of testing the effect of EXP.

3.1 Method

The material was similar to the material of the prosody elicitation study in that each target sentence has two corresponding contexts sentences: one biasing for a requesting interpretation, the other for a demanding interpretation. The former type contained verbs of request and established A's EXP, the latter type contained verbs of demand and established S's EXP. Overall, there were 20 target and 40 context sentences. 20 additional fillers followed the basic design of the context and target sentences. A sample item with both types of context and a target sentence is given below:

(13) **Context I**: {Die frisch zugezogene Familie Maier erkundigt sich wann die obligatorische Kehrwoche stattfindet.}

'The M family, who just moved to a new place, inquires when the obligatory sweeping is to be done.'

Context II: {Frau Häberle stellt auf der Mieterversammlung klar, dass alles seine rechte Ordnung hat.}

'At the tenant meeting, Ms. H. makes sure that everyone follows the protocol.'

Target sentence: Am Samschdich wird hier d'Kehrwoch gmacht, gell?/!
'On Saturdays, you do the sweep-cleaning here, CONF'

Due to the asymmetry in knowledge of the two interlocutors, *requesting gell* can only target the confirmation of *p*, and *demanding gell* appears to target the confirmation of EXP. Each context of use of the confirmational had a corresponding positive and negative response choice in the study:

Table 2: Response choices

	p	EXP
+	Ja, da hosch Recht 'Yes, you're right.'	Okay, geht klar. 'Okay, no problem.'
-	Noi, des schtimmt so net. No, that's not true.	Na und, was goht mih des ah? 'So what? How does that relate to me?'

The material was presented on an online survey platform in written form. Since there are no orthographic conventions for Swabian, only the target sentences were represented with Swabian orthography. The context sentences were presented in Standard German. Each participant saw all 20 target sentences, half of which were presented with a demanding-biased context, the other half with a requesting-biased context. For that purpose, the 40 context sentences were evenly divided among two presentation lists. Each target sentence with a requesting interpretation came with a question mark due to the verb of request in the biasing context sentence. Each target sentence with a demanding interpretation came with an exclamation mark due to the verb of demand in the biasing context sentence. Subjects had to choose one out of the four response choices from Table 2. The study was completed by 27 Swabian native speakers.

Utterances containing *gell* allow both positive and negative responses. Nevertheless, the definition of contingency in (11) entails a bias toward a positive response. S makes a contingent commitment in anticipation of a confirmation, not a rejection. Furthermore, it is expected that the response choices targeting *p* are the default replies for *requesting gell* and the response choices targeting EXP are the default replies for *requesting gell.* Some negative responses for each context of use are expected, but a high frequency of EXP responses for *requesting gell* or a high frequency of *p* responses for *demanding gell* is not expected. This translates into the following hypotheses:

(14) **Hypotheses**

    1) The sum of the occurrences of the positive replies by far outweighs the sum of the occurrences of the negative replies ($\sum$(+*p*, +**EXP**) > $\sum$(-*p*, –**EXP**)).

    2) a. For *requesting gell*, the sum of the occurrences of replies targeting *p* outweighs the sum of the occurrences of replies targeting **EXP** ($\sum$(+*p*, -*p*) > $\sum$(+**EXP**, –**EXP**)).

       b. For *demanding gell*, the sum of the occurrences of replies targeting **EXP** outweighs the sum of the occurrences of replies targeting *p* ($\sum$(+**EXP**, -**EXP**) > $\sum$(+*p*, –*p*)).

3.2 Results

For the statistical analysis of the results, a generalized linear mixed model was used for both hypotheses, processed with the LME4 package (Bates, Maechler & Bolker, 2012) for the R software (Venables & Smith, 2005). For testing the first hypothesis, the most appropriate model turned out to be a model ignoring type and presentation list; for testing the second hypothesis random subject intercepts were included, and so was the type of *gell*. *Demanding gell* and the first presentation list were chosen as baseline for testing both hypotheses; for the second hypothesis, which is type-specific, EXP was treated as the baseline. The difference between positive and negative responses turned out to be significant ($p < 0.001$). Across types, subjects are 3.736 times more likely to respond positively than negatively, regardless of type and presentation list. The first hypothesis is therefore clearly supported by the results. While the difference between **EXP** and *p* did turn out as significant for both types ($p_{requesting} < 0.001$, $p_{demanding} < 0.001$), it would be too hasty to simply conclude that the second hypothesis is equally-well supported. While the mixed-effects analysis revealed that subjects are 3.82 times more likely to choose *p* than **EXP** for *requesting gell*, there was only an odds ratio of 0.607 for *requesting gell*. This means that subjects were less likely to choose the *p* responses for *demanding gell* by a ratio of 0.607. Figure 7 displays the mean distributions for the four responses including error bars representing the standard error:
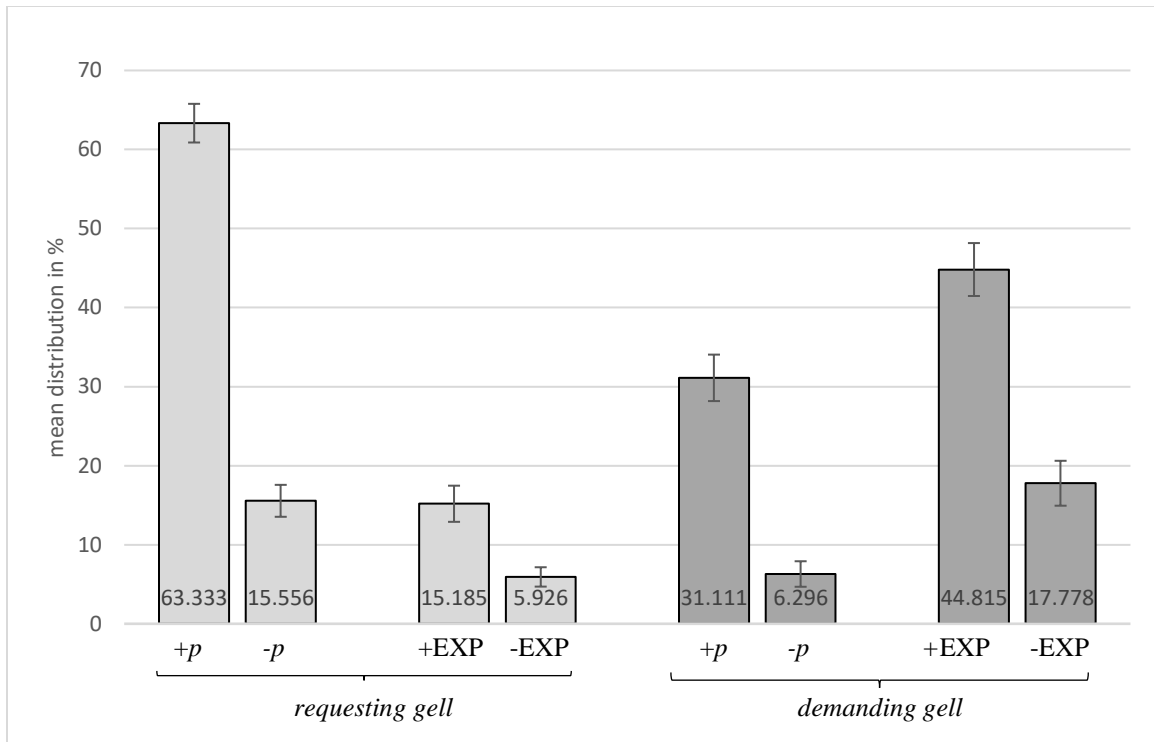
Figure 7: Mean *distribution* of responses within subjects

Considering the high frequency of **+p** responses in the context of *demanding gell* (mean = 0.311, SD = 0.149) demonstrates that the results for *demanding gell* do not match up with the predictions. This result challenges the underlying idea of this study that a response targeting *p* is inappropriate in the context of *demanding gell*. Both *p* and EXP can be targeted with a response for this type.

3.3   Discussion

The conclusions to be drawn from the above results are threefold. Firstly, the confirmation of the first hypothesis (+ > **-**) confirm that confirmationals come with a bias towards a confirmation. For *requesting gell*, S expects A to confirm *p*, rather than being unbiased towards **+p** or **-p**. For *demanding gell*, S expects A to confirm EXP, rather than being unbiased towards **+EXP** or **-EXP**. This is where the distinction lies between canonical questions and non-canonical questions, such as tag-questions, rising declaratives and *requesting gell*. Only non-canonical questions constitute complex speech acts where an assertion is combined with a second speech act. A canonical question does not assert *p*. Secondly, the different response behavior of *gell* provides quantifiable evidence for assuming two different contexts of use associated with the same linguistic form. R*equesting gell* is generally treated as an assertion whose commitment is contingent upon a confirmation by A, hence a default response targets the propositional level. Thirdly, the high frequency of **+p** in the context of *demanding gell* strongly suggests that EXP is not a strong enough factor to prevent A from addressing *p* with a reply. However, it would be an error to relate this finding back to the notion of contingent commitment. Crucially, a response constitutes the next conversational move. Even a response that confirms *p* in a context biasing for a demanding interpretation does not change the absence of contingency. Rather, A does not accept the assumed discrepancy of EXP between S

and A. By replying **+*p***, A claims that s/he is an expert on the truth of *p*, too. As a by-product of this study, there is now further support for disassociating a rising intonation from the interpretation as a question. Particularly the response data on *demanding gell* provides support for relating the function of a rising intonation exclusively to a CoA, which triggers A to respond to an utterance.

4 General discussion

The findings from the experimental investigations via a prosody elicitation study and a forced-choice response study confirm that the interpretation of *gell* is affected by the pragmatic factor of EXP. For *requesting gell*, the EXP of A is expected by S in the moment S utters an assertion and therefore commits to *p* only in so far as this commitment is contingent upon ratification by A. For *demanding gell*, the EXP of S is expected to be accepted by A in the moment S utters an assertion and fully commits to *p*. The postulation of the pragmatic factor EXP goes beyond Truckenbrodt's (2012, 2013) conclusion that pragmatics is important for the interpretation of the rising intonation in terms of salient propositions. In the context of *gell*, we see a sensitivity towards EXP that affects the interpretation of the SA. The contingency communicated in the context of *requesting gell* is absent in the context of *demanding gell*. *Requesting* and *demanding gell* differ first and foremost by which of the two interlocutors is the source of knowledge about the truth about *p*, and hence is the expert. For *requesting gell*, it is A who is the expert. Therefore, S's commitment to *p* is contingent on the confirmation from the expert A. For *demanding gell* it is S, not A who is the expert. Because of this EXP, S's commitment to *p* is not contingent. EXP and contingency are two sides of the same coin: any contingent commitment comes with **-EXP**, +**EXP** comes without any contingency. The response to *requesting gell* results for S in accepting what A knows; the response to *demanding gell* results for A in accepting what S knows.

A remaining question is how the conversational properties of *requesting* and *demanding gell* can be conceptualized. Establishing a balance between beliefs of interlocutors is a dialogical process. Therefore, Stalnaker (2002) adds to his (1978) model of CG the notion of acceptance. Acceptance of a belief by all interlocutors is essential for the establishment of CG. Despite this integration of a subsequent conversational move, Stalnaker's (2002) model cannot capture the management of CG via confirmationals. They have an additional dialogical property in that S already anticipates A's reply in her/his own utterance. This is an achievement of Gunlogson's (2008) notion of a contingent commitment. Her model is dialogical in that the first discourse move is already foreshadowing the following discourse move. Contingency is a direct link to A within an utterance that already comes with some form of commitment. A conversational model incorporating EXP needs to incorporate not only the different stages of CG management, but also a way to model how a following conversational move is reflected in the preceding conversational move. Despite their advancement in comparison to earlier work, neither Stalnaker (2002) nor Gunlogson (2008) can capture the process of interpretation of *demanding gell*. What is missing is an elaboration of the dialogical aspect into a fully dialogical model. Only when the response possibilities for *demanding gell* are included in the analysis, can the distinction between the two contexts of use be fully described. The dialogical aspect of the individual utterance is relevant for the interpretation of *requesting gell* in that the communicated contingency anticipates the response of A. The dialogical aspect of the establishing of CG is relevant for the interpretation of *demanding gell* in that EXP can be both affirmed and renegotiated depending on the initial status of EXP. Both of these elements are presented in Krifka's (to appear) conversational model. An utterance is here defined as an update of a commitment state which is entailed in a larger commitment space that reflects the development of a conversation. What is an advantage of Krifka (to appear) over other conversational models is that an assertion involves S-commitment at two different levels. With an

assertion, S commits not only to be accountable for the truth of *p,* but also to expect *p* to enter into the CG by A's acceptance of *p*. This twofold commitment is essential for the ability of the conversational model to incorporate both response possibilities of *demanding gell*. The high frequencies of both affirmative response possibilities (+*p* and +**Exp**) for *demanding gell* reveal that the status of EXP can be renegotiated in a conversation. Replying to *demanding gell* with a response targeting *p* (+*p* and -*p*) corresponds to a claim of EXP by A. For A to be able to claim EXP in the course of the dialogue, however, A already needs to know *p*. In responding to *demanding gell* at the propositional level, A mirrors the behavior of S: A declares to be an expert about *p*.

Requesting gell can be modelled simply in an analogy to *rising declaratives*. The latter are modelled by Krifka (to appear) as a combination of speech act level and propositional level. Since updating the CG builds into the commitment space, complex SAs are modelled as a commitment state within another commitment state (see Figure 10a). The dialogical aspect of the isolated utterance is represented by the continuations proposed to A by S. A *rising declarative* is therefore described as a speech act that only proposes the assertion of *p* as a continuation. The dialogical aspect of the CG management is then guaranteed by operations like acceptance and denial, which express another state of commitment within the commitment space.
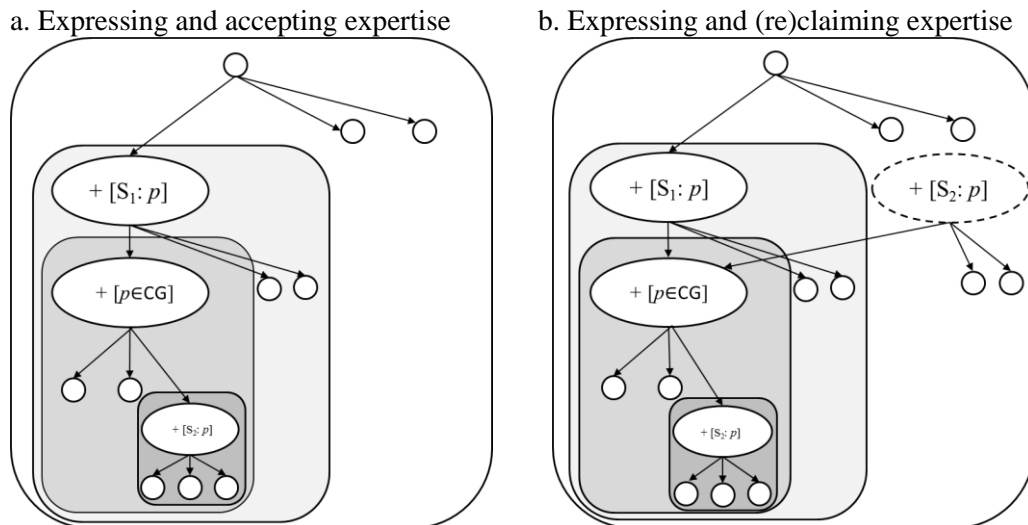
a. Expressing and accepting expertise   b. Expressing and (re)claiming expertise

Figure 10: Negotiating expertise

The point of entry for the negotiation of EXP in the context of *demanding gell* is the second level of commitment. Suppose there is a commitment of A within the commitment space at the first level of commitment (see the content of the dashed circle in figure 10b). This first level of commitment simply corresponds to the initial status of the conversation. For *demanding gell*, it is possible that both interlocutors know *p*. Hence both interlocutors share a commitment to the truth of *p* regardless of who makes the utterance. If both interlocutors have a commitment to the truth of *p*, they also share the second level of commitment at the point of A's reply. A can reply +*p* if s/he commits to the expectation for *p* to be added to the CG just as S did with her/his utterance. Krifka's (to appear) conversational model can therefore incorporate both positive responses to *demanding gell*.

5   Conclusion

This paper identified two different contexts of use for the Swabian confirmational *gell*. In a context where A is the source of knowledge about the truth of *p*, *gell* has a requesting function; in a context where S is the source of knowledge about the truth of *p*, *gell* has a demanding function. For the interpretation of *gell*, EXP and contingency are two relevant albeit negotiable factors. In fact, EXP can be perceived as the counterpart to contingency. An interesting finding is that rising intonation cannot be identified with their encoding, which is particularly noteworthy in light of Gunlogson's (2008) analysis of so-called rising declaratives. The analysis of *gell* demonstrates that CG management has to be perceived as dialogical both by incorporating of A's response and by incorporating an anticipation of the reply of A in S's utterance. Hence, any conceptualization of commitment needs to be complex. Interlocutors commit both to *p* and to the expectation for *p* to be added to the CG (Krifka: to appear). The various experimental approaches in the present investigation of the Swabian confirmational *gell* capture the complexity of the analysis of discourse particles. Discourse particles have recently become the subject of a wide range of investigations across the interfaces, with manifold combinations of the traditional areas in linguistics. I believe that this trend emerging in the study of formerly neglected units of language exemplifies a shift towards a more holistic approach to the language game. The current study covers only a fraction of the possible approaches towards confirmationals. I hope to have demonstrated that an approach that incorporates more than one perspective or one methodology can reveal data that otherwise could be overlooked. One of the main motivations for this investigation was the aim to demonstrate that the language game is highly complex even at the level of a single particle. The findings of the present study demand for a conversational model of a corresponding complexity. For future investigations, it seems worth to reinvestigate the role of intonation at a larger scale. Intuitions of native speakers of the Swabian dialect are quite strong on the perception of a prosodic difference associated with the two different contexts of use discussed in this study. This is supported by the fact that the prosodic elicitations captured instances of minimal pairs with a significant difference between the intonation on *demanding gell* and the intonation on *requesting gell*. Hence, prosody could be one factor among others that can encode expertise. There are other devices worth considering, too. An appeal for a holistic approach to particles, and language in general, should incorporate the investigation of non-verbal and even non-linguistic signals that may communicate EXP. Certain gestures and raised eyebrows were noted in the context of *demanding gell*, and what eludes our current possibilities of investigation are phenomena such as tone in the pragmatic sense. What is certain is that there is no strict correspondence between form and meaning for *gell*. This ambiguity in form calls for multi-modal investigations across the interfaces.

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