"Maybe, but probably not"

Negotiating likelihood and perspective

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The goal of our paper is to explore one of the functions of everyday expressions of likelihood; more specifically, to propose that they play an important role in negotiating not only likelihood but also perspective. We will examine examples of such expressions in the context of conversational interactions, identifying the roles of such expressions along with partner responses to them. Our analyses will be integrated with previous models from laboratory research on the production and comprehension of expressions of quantity and frequency (e.g., Moxey and Sanford 2000). Findings will also be interpreted in the context of ongoing discussions on the nature and role of perspective-taking (e.g., Duran, Dale, and Kreuz 2011).

Keywords: likelihood, perspective-taking, negotiation, evaluation, expectation

Introduction

Expressions of likelihood provide one way of expressing the level of certainty about a state or event. They convey information both about the expected frequency and also the potential frequency that serves as a reference point. They can be precise ('70% chance of rain'); however, many everyday expressions are vague, conveying likelihood in a variety of ways (Jucker, Smith, and Luedge 2003). One can ask, why are there verbal expressions of likelihood when numerical ones seem more precise? And why are there so many alternatives that appear to give the same information about either low or high likelihoods?

Our goal is to explore the functions of such everyday expressions; more specifically, to identify ways in which these expressions contribute to the presentation of one's perspective and to the negotiation of perspective-taking between conversational partners. We believe that the identification and exchange of perspectives is a basic aspect of conversational interactions; we want to identify the variety of means by which partners do so.

Previously identified functions of verbal expressions of likelihood

Some theorists (e.g., Zwarts 1994) and researchers (e.g., Piercey 2009; Wallsten et al 1986) have translated verbal expressions of likelihood into scales attempting to match them to different levels of probability. However, a number of researchers using various psycholinguistic tasks have demonstrated that verbal expressions of likelihood are multi-functional, doing more than to indicate likelihood itself.

Teigen and Brun (1995) used a variety of tasks to compare judgments about events using numerical or verbal expressions. Participants might be asked to complete sentences or to evaluate the appropriateness of sentences using either verbal or numerical expressions of the likelihood of events, such as "It is entirely possible/doubtful that Lendl will win because he has played so well/poorly lately". They found that verbal, but not numerical, expressions conveyed positive or negative implications. As they put it,

> words have … an inbuilt purpose… in that they are either negating or affirming something. This could be previous expectations, a preceding statement, or more generally: beliefs assumed to be of relevance for the particular situation. (p. 256)

Piercey (2009) studied the interpretations made of expressions of likelihood in the context of accounting judgments such as " It is somewhat possible that the client overstated the value of an asset". He found that participants given verbal as opposed to numerical estimates of probability were more likely to redefine their range of likelihoods to fit an observed outcome, when they learned the prediction was or was not accurate. He also found that people's judgments were influenced by the social context, such as when they were told that a speaker is generally optimistic or pessimistic. He concluded that verbal expressions, in contrast to numerical expressions, led hearers to engage in 'motivated reasoning.'

Juanchich, Teigen, and Villejoubert (2010) found that participants selected verbal expressions partly on the basis of their contrast with a previous state of affairs (cf. also Sher and McKenzie 2006). Two different expressions 'It is probable that the suspect is guilty' or 'It is not certain that the suspect is guilty' may apply to the same probability (e.g., 70% chance of guilt), but they are used in different contexts depending on the speaker's prior beliefs about a suspect. As the authors put it, verbal expressions of likelihood serve argumentative functions.

In addition, Juanchich, Sirota, and Butler (2012) found that participants in their studies frequently interpreted verbal expressions of likelihood ('perhaps your stocks will lose their value') in terms of the face-management of the hearer (to avoid giving bad news harshly) or for face-management of the speaker (to avoid blame for bad news or for inaccurate predictions). Participants adjusted their interpretations of probabilistic terms (e.g., the meaning of 'perhaps') accordingly.

Functions of expressions of quantity

In exploring the functions of such expressions, we were especially interested in a model that was originally proposed to deal with natural language expressions of quantity. A research team consisting of Moxey, Garrod, and Sanford, and associates (e.g., Garrod and Moxey 1995; Moxey 2006; Moxey and Sandford 1987; Moxey and Sanford 2000; Sanford, Dawydiak and Moxey 2007) argue that these expressions convey focus and perspective along with propositional content. They carried out a series of laboratory studies demonstrating several functions of such expressions.

First, they demonstrated that speakers may use quite different expressions to describe a state of affairs, such as when a given number of a set of stick figures are female, and that expressions such as 'many' or 'some' may be used to describe a wide range of quantities. Second, they demonstrated that hearers draw different inferences from the alternative expressions that may be used to describe a given state of affairs.

In one study (Moxey and Sandford 1987), participants were given either of two seemingly similar descriptions of a situation ('A few students passed' or 'Few students passed') and were asked to continue with an appropriate sentence. Participants treated the two situations quite differently. Following 'a few students passed' participants went on to describe what those students did or felt, while following 'few students passed' they typically tried to explain the behavior of the students who did *not* pass. The researchers proposed that these alternative expressions focused the hearer's attention on one or another subset of the possibilities. 'A few students passed' focuses on those who did (the referenced set), while 'few passed' focuses on those who did not (the complementary set). In addition, participants were more likely to add a justification when the focus was on the complementary set.

Some expressions (e.g., 'not many') may also convey whether there were more or fewer than expected by the speaker and/or hearer. In a recent study, Sanford and Moxey (2011) expanded on this point in demonstrating that negative expressions such as 'not many' and 'only a few' serve to deny presuppositions that were either stated or assumed.

They suggest that their model applies also to language regarding likelihood (e.g., Sanford and Moxey 2011; cf. also Teigen and Brun 1995) and that it should apply to everyday language usage. Our analyses hope to demonstrate both points.

Expressions of likelihood, like expressions of quantity, can be seen as dividing the universe of possibilities into two sets. And everyday usages can be seen as focusing the hearer on one or the other of the subsets, presenting different perspectives on past or future events. If there is a 10% chance of rain, we can say

'there is some chance of rain' or 'there is little chance of rain.' The first expression focuses on the possible occurrence of rain, while the latter focuses on its possible non-occurrence. Similarly, in describing past events, one can focus on the times when something did occur 'we sometimes got rain last July' or on when it did not 'we rarely got rain last July.' The same is true, of course, for events with high probabilities. If there is a 90% chance of rain in February, we can say 'most of the time in February it rains' or 'almost always in February it rains.' The first expression focuses on the occasions when it rains, while the second focuses on those when it does not.

While all such usages may 'leak' implications, in some cases the implications are given extra salience. Expressions like 'rarely' or 'not very often' imply that something occurs less often than would be expected, while expressions like 'so often' or 'improbably' imply occurrences more often than expected. Based on the context, such expressions also help convey evaluation. Thus they may play a role in conveying perspective.

Perspective-taking

An additional reason to study perspective-taking in natural conversations is to contribute to the ongoing debate in cognitive psychology regarding its nature and roles. Cognitive psychologists have typically studied perspective-taking in the context of joint tasks carried out in the laboratory. Researchers provide asymmetrical information to the partners and then determine how speakers deal with the discrepant information. To the extent that speakers identify and adjust for the partner's missing information, their behavior is judged to involve perspective-taking; to the extent that they fail to adjust, their behavior is said to be egocentric.

In an influential paper, Horton and Keysar (1996) described tasks in which speakers failed to take sufficient account of a hearer's lack of access to critical information. They thus concluded that perspective-taking is not a primary feature of cognition, even in joint tasks in which it is critical to their success. Rather it was seen as a secondary function, subject to a variety of limitations. There followed various other studies in which researchers identified limitations on perspective-taking in joint tasks. However, these studies can be criticized for creating artificial situations in which the speaker and/or the hearer has little context for the judgments and is required to act under time pressures that would be highly unusual in social interactions. Also, there were not opportunities for feedback that would ordinarily occur in joint tasks. That is, the studies have limited ecological validity.

More recent research has focused on the ability of participants to keep two perspectives in mind in laboratory tasks. Duran, Dale, and Kreuz (2011) asked participants to respond to the realistic but ambiguous request 'Give me the folder

on the left" when the speaker was at one of several orientations to the hearer. There is not one correct response, as the hearer must judge whether the speaker has already compensated for the different orientations. However, what was critical was that hearers were consistent in their approach and that they varied their responses with the context. Dale, Duran, and Kreuz interpreted this to mean that the hearers simultaneously activated both their own and their partner's frame of reference in order to interpret their requests.

Similarly, Pickering, McLean, and Gambi (2012) asked hearers to choose a drawing that best represented a statement such as 'I am cutting the tomato," when the figure's orientation might be towards either the speaker or the hearer. Hearers were consistent from one example to the next in choosing which orientation to use. Pickering et al. interpret their results to mean that the hearer's perspective must be fluid, not rigid, in that he or she will select a reference point complementary to that of a partner in a task.

Aims of study

As we believe that conversations require ongoing perspective-taking, we wanted to explore the roles of these expressions in a conversational setting. Our study analyzes the communication of likelihood in natural conversations, with special attention to cases in which partners negotiate either the likelihood itself or the perspective on it.

We use the concept of perspective when (1) the choice of expressions has implications for the evaluation of a situation and/or (2) when it carries implications as to whether the expectations of the speaker or hearer were confirmed or disconfirmed.

We consider partners to be negotiating when (1) they provide cues as to their own perspective or their belief about their partner's perspective, (2) when they respond to cues as to their own perspective or their belief about their partner's perspective, or (3) when they attempt to align perspectives.

Data and analyses

Data consist of six 15-minute conversations by undergraduates at California State University, Long Beach. They spent 5 minutes chatting freely, then discussed two assigned topics — movies, opera, sports, karate, or travel. Examples were chosen in which speakers used expressions to convey a judgment of likelihood about past events ('it rained all the time') or future ones ('it will probably rain').

Natural Language Expressions used

While precise statements of likelihood were rare, there were a variety of everyday expressions used throughout the conversations. As can be seen below, some were used to focus on occurrences, while others on non-occurrences.

Focus on occurrences

Some of the expressions, such as 'probably' and 'sometimes,' are conventional means for expressing likelihood. Others, such as 'actually gonna' and 'when I get a chance,' are included because they seem to serve the same function in the context of the conversation.

a.	actually gonna	I'm actually gonna play
b.	all the time	it rains all the time
c.	always	you can always mess around playing
d.	apparently	apparently they are still together
e.	ever	did you ever watch any of those Bruce Lee movies?
f.	ever once in a while	ever once in a while I go to Acapulco
g.	every	I commute . . every day
h.	every time	every time I look at see that boat back there
i.	hopefully gonna	hopefully I'm gonna go
j.	if we have time	if if we have time
k.	it's inevitable	if it's inevitable, it's inevitable
l.	maybe	maybe in the future I will
m.	might be	it might be the waterpump
n.	most of the time	so is that where you hang out most of the time?
o.	mostly	no, they're mostly in Italian
p.	pretty much always	I'm pretty much always happy
q.	probably	probably take Jimmy too
r.	sometimes	sometimes you think you know the material
s.	usually	women are usually sopranos
t.	when I get a chance	I mean like when I get a chance
u.	would definitely	I would definitely go and see another one

Focus on non-occurrences

A variety of expressions were used to place the focus on non-occurrences, as well. We found a smaller number and variety of these, compared to those placing the focus on occurrences. Of course, in other contexts, a different pattern may have been found.

a.	kind of impossible	it's kind of impossible to drive
b.	never	I've never been to a football game
c.	not a lot	not a lot but I mean like when I get a chance
d.	not always	we visit all the relatives . . <@not always@>
e.	not that often	I don't go to the movies that often actually
f.	probably most likely not	probably m-most likely not, I enjoy doing things with other people
g.	usually no	usually no

Negotiating propositional content

Natural language expressions were used throughout the conversations. In three cases, partners negotiated the propositional content of an expression, seeking to align their beliefs about the world.

In Example (1) below, Speaker A stressed the likelihood of his traveling home for Christmas with the expression 'every.' His partner acknowledged this claim by repeating 'every,' strengthening the focus. Finally, the speaker repeated it again to emphasize their alignment as well as the focus.

(1)   Confirmation:
      A: I travel home for Christmas *every*,
      B: *every*,
      A: *every* [Christmas.]
      B: [Christmas.]
      A: yeah I travel home (DAAD SII3s1, 506–510)

In this case, partners used the expression 'every' to describe a likelihood, to focus on occurrences rather than non-occurrences, and to convey alignment.

In Example (2) below, Speaker B had already established herself as knowledge-able about opera and then, in talking about The Magic Flute, commented that it is usually sung in German. Speaker A seemed surprised by the assertion, asking 'most of them are, aren't they?' That is, if most operas are sung in German, as she believed, why would Speaker B focus on the obvious? Speaker B then made a more general claim, that operas are mostly sung in Italian.

(2)   Revision:
      B: The Magic Flute is *usually* sung in German.
      A: most of them are, aren't they?
      B: no, they're *mostly* in Italian (DAAD SIV3s2, 963–965)

Each partner expressed a belief about the likelihood of an opera, or operas in general, being sung in German, but A's statement was too general. When Speaker B

corrected her, she might have simply contradicted A, but instead she refocused attention to the greater likelihood of the use of Italian. This strategy seemed to convey politeness as well as information. In this interaction, the choice of focusing strategies seemed to serve multiple functions and to conclude with a joint understanding of the topic.

In Example (3) below, Speaker A had noted Speaker B's excellent English, despite his growing up in Hong Kong. Speaker B then surprised A with his claim, that people there speak Chinese, not English, most of the time. With the expression 'oh really?' Speaker A both expressed his surprise and acknowledged B's revision of his belief.

(3) B: . . *most of the time* we're speaking Chinese,
     A: oh really?
     B: yeah. (DAAD SII3s1, 85–87)

From these examples, it appears to be a normal part of everyday conversations to include judgments of likelihood in utterances and to negotiate these claims by affirming or revising them. In each of these cases, the focus was placed on the likelihood of events occurring, though we believe it would certainly be normal to have similar negotiations about the non-occurrence of events.

Negotiating perspective

More often, however, partners accepted the content of a likelihood judgment but negotiated the perspective on it, seeking to align or to contrast their perspectives on a given belief. It was especially interesting when speakers used these expressions to acknowledge the hearer's perspective, along with expressing their own.

Changing perspective to align with partner

In Example (4) below, the partners were discussing travel. Speaker B had explained that he worked part-time for his uncle and that this involved frequent travel; however, the travel was all work-related. Speaker A inquired more directly about opportunities for sightseeing, implying that surely B got to do some. Speaker B replied with a qualified positive response — 'if we have time', which focused attention on the possibility that they might sightsee. But A then foregrounded the alternative view of the situation, that they do not usually get to sightsee. Note that he was not changing the likelihood itself, but rather the focus of the reply, and by implication, the perspective on it. Originally B had tried to put a positive spin on his experiences, but then he repeated A's characterization of the situation and added his own clear evaluation.

(4)   A: you don't you don't travel?
             I mean you know like sightsee,
      B: *if if we have time.*
      A: *usually no.*
      B: *usually no.*
             <WH damn.WH> (DAAD SII3s1, 392–393, 396–399)

The two expressions, 'if we have time' and 'usually no' both convey the information that sightseeing is possible but not likely. However, the former focuses attention on the possible occurrences, while the second focuses on the possible non-occurrences. In this case, Speaker B presented one perspective and Speaker A the other, but B then aligned his perspective with A's. The interaction also conveyed the sense that Speaker A considered B's response to be unexpected and that it implied a negative evaluation of the situation. Speaker B then directly stated this evaluation, clearly aligning with Speaker A's perspective. That is, the expressions not only conveyed the speakers' beliefs about the likelihood of sightseeing but also their perspectives on it. As in Example (1), the repetition of the partner's expression represented an affirmation and alignment of perspectives.

Negotiating an implied perspective

In other cases, speakers implied a given perspective, which was then negotiated by the partner. In Example (5) below, the partners discussed professional basketball games. While Speaker B was new to the area, Speaker A had grown up there and thus could be presumed to be a fan of the local team. Thus, attendance at games would be expected and would carry a positive evaluation. The partners first established the non-zero likelihood that Speaker A had gone to professional games, which led to a discussion of how often he went. Speaker B then implied that A would have gone to games often, suggesting frequent attendance with 'a lot?'.

(5)   B: have you been in one?
      A: have I been to the game?
      B: yeah.
      A: oh yeah.
      B: *a lot?*
      A: *not a lo=t but,*
             I mean like,
             when I get a chance,
             I like last year went to the Phoenix Sun,
             and then this Saturday I went to . .
             the Lakers won against uh . . (DAAD S2,3,s1,1118–1128)

Speaker A acknowledged and also denied this presupposition with the expression 'not a lot,' placing the focus back onto times he did not go to games. He then went on to express his perspective in a positive way 'when I get a chance.' He thus acknowledged the partner's focus but promptly returned the focus to those times when he had gone, which he went on to illustrate. As in Example (4), the partner seemed surprised by A's failure to meet his expectations, and A went on to justify his behavior. In this example, the conversation refocused several times, from the likelihood of any occurrence 'yeah,' to the likelihood of frequent occurrences 'a lot?,' to the likelihood of non-occurrences 'not a lo=t,' and finally back to the likelihood of occurrences 'when I get a chance.'

Negotiating a presumed perspective

Partners sometimes dealt with presumed, or normative, beliefs rather than ones that were stated or implied. In Example (6) below, the partners had been asked to discuss movies. For students, the default assumption is that movies are a popular form of entertainment. Going carries a positive evaluation, and students are expected to go often. Thus, when asked to discuss movies, Speaker B began her description of her experience with 'sometimes', focusing on those times she did go. But then, after a pause as for a dispreferred response, she focused on the alternative possibility "I don't go …that often."

(6)   B: but . . yeah . . I don't know
            … *sometimes* … I *don't* go to the movies *that often* actually,
            do you?
      A: no, me neither.
            I just watch them on TV. (DAAD SVI5,s2, 45–50)

While 'sometimes' and 'not that often' can describe the same probability of going, they focus attention on different ways of viewing the situation. In this case, the speaker appeared to be negotiating between what she assumed her partner expected ('sometimes') and how she saw her situation ('not often'). It is interesting to note that that Speaker A aligned with B's perspective, and she supplied the justification for violating the norm. This seems a strong indication of her alignment with Speaker B, with both of them going against the norm and willing to focus on times they do not go out to movies. It is also interesting that the negotiation occurred within one turn, as Speaker B reversed the focus from the likelihood she would go to the likelihood she would not without waiting for the partner's response. Nevertheless, we consider it a negotiation because she appeared to be anticipating the partner's response and then directly seeking it with 'do you?'

Justifying perspective when partner expresses surprise

Finally, in Example (7) below, Speaker A's negotiation began when her partner expressed surprise at her choice of expressions. When the partners were asked to discuss opera, Speaker A took the lead, mentioning one she had attended. When Speaker B asked whether she would like to see another, she responded with enthusiasm 'I would definitely go and see another one.' B then asked whether she would go by herself, and A replied, after a brief pause, 'probably not'. When B reacted with surprise, A clarified her response, beginning with 'maybe' to acknowledge the possibility she might go, as B apparently expected. But she then followed up with 'but probably not,' again putting the focus on the probability that she would not go alone. She followed that up with a justification of her viewpoint.

(7)   B: would [[would]] you go by yourself to go see an opera?
      A: [[XX]]
           .. probably not.
           [@@]
      B: [*probably] not*?
      A.   I mean *maybe, but probably not* you know
           I like to enjoy things with other people (DAAD SII1s1, 708–717)

As the conversation continued, Speaker B again questioned A's reply. She again placed the focus on the likelihood she would not go, and she again stated her justification for violating B's expectation.

(8)   B: but you wouldn't go by yourself, right?
      A: *probably m-most likely not,*
           I enjoy doing things with other people (DAAD SII1s1, 723–725)

Change of focus as dispreferred response

It is interesting to note that these negotiations frequently included disfluencies, before a change of focus from the partner's stated or presumed beliefs. In several cases there was more than one type of disfluency.

a.   Repetition: if if we have time (DAAD SII3s1, 396)
b.   Hesitation: but . . yeah . . I don't know
                        . . sometimes . . (DAAD SVI5,s2, 45–46)
                        . . probably not (DAAD SII1s1, 14)
c.   Qualification: but . . yeah .. I don't know
                        . . sometimes . . (DAAD SVI5,s2, 45–46)
                        I mean maybe but probably not you know (DAAD SII1s1, 14)

I mean like when I get a chance (DAAD SII3s1, 1125)

d.   Nervous laughter: probably not. @@@ (DAAD SII1s1, 14–15)

Summary

In these interactions, speakers used expressions of likelihood to convey more than probability itself; they used them to direct the partner's focus in a way consistent with their view of a situation. In addition they also used them to recognize the partner's evaluation or point of view. In some cases, speakers anticipated the partner's perspective and acknowledged it ('sometimes'), before providing their own ('but not all that often.') In others, speakers directly responded to a partner's expression, either to deny it 'not a lot' or to confirm it 'maybe,' before continuing with their own perspective 'when I get a chance' or 'probably not.' Thus they were able to acknowledge the partner's perspective while also directing the focus to their own. Along with conveying focus, speakers conveyed evaluation, either directly or indirectly, and they conveyed, either directly or indirectly, whether viewpoints were expected or not. We consider all this to be part of conveying perspective.

Other evidence of the negotiation came from the use of justifications when the perspective was unexpected, either because it violated normative assumptions, because it deviated from a partner's expressed or implied viewpoint, or because the partner expressed surprise at the speaker's perspective.

Discussion

Overview

We propose that these expressions function at several levels. (1) They convey information about the likelihood of events. (2) They indicate where the speaker wants to place the focus — on the events that do/may occur or those that do/may not. They also convey evaluation of a situation and whether or not it was as expected. (3) These expressions allow the speaker to acknowledge the partner's perspective as well as to present his/her own. We thus propose to add the negotiation of perspective to the list of functions served by statements of likelihood.

Support and extension of model on natural language expressions

Our findings support and extend the Moxey-Garrod-Sanford model of natural language expressions of quantity. In natural conversations, partners chose expressions of likelihood to place the focus on either occurrences (e.g., the chance she

might go to an opera alone) or complementary sets (e.g., the likelihood she would not go alone). They also were more likely to provide explanations when the perspective was unexpected.

Role of presuppositions and reference points

Our observations and analyses are consistent with work (e.g., Sanford and Moxey 2011) that focuses on the role of presuppositions and reference points in reasoning. Speakers often formulated expressions in terms of what was implied by the partner ('a lot?') or what would be considered normative (re going to movies: 'sometimes').

Change of focus as dispreferred response

It is also interesting to note that these negotiations frequently had disfluencies, before disagreements with partner's stated or presumed beliefs. As Arnold and Tannenhaus (2011) demonstrated, disfluencies can result from competing plans, and in these cases the speaker may be considering alternative ways to present a likelihood judgment. But in addition, the disfluencies may reflect or signal a dispreferred response ("I know you may expect a focus on X, but I am instead going to focus on not-X') or unexpected information (Clark and Foxtree 2002).

Keeping two perspectives in mind

Our study provides further support for recent work in psychology on perspective-taking. Like Dale, Duran, and Kreuz (2011), we believe that partners simultaneously activate both their own and their partner's frame of reference in order to interpret expressions. We hope we have demonstrated the same in natural conversations; partners must constantly keep in mind both their own and their partner's perspectives in order to negotiate them as our participants did.

The expressions we studied are only one set of discourse strategies by which partners negotiate their perspectives. We are just beginning to understand how this is done in everyday conversations.

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