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UNIVERSITY OF CALIFORNIA SAN DIEGO

Norms of Knowledge: Navigating Epistemic Territory

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy

in

Cognitive Science

by

Rachel Elizabeth Bristol

Committee in charge:

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2021

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University of California San Diego

2021

EPIGRAPH

I love it when people explain things to me they know
and I'm interested in but don't yet know.
It's when they explain things to me I know
and they don't that the conversation goes awry.

Rebecca Solnit

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TRANSCRIPT CONVENTIONS

Transcripts in Chapters 1-3 follow basic Jeffersonian notation, detailed below:

<u>Symbol</u>	<u>Use</u>
[]	Start and end point of overlapping speech
=	Break and continuation of a single interrupted utterance
-	An abrupt halt or interruption in the utterance
(# of sec)	Time in seconds of a pause in speech
(.)	Brief pause in speech (less than 0.2 seconds)
↑	High or rising pitch
↓	Low or falling pitch
<u>text</u>	Emphasized or stressed speech
◦	Whisper or reduced volume speech
ALL CAPS	Shouted or increased volume speech
>text<	Enclosed speech was delivered more rapidly than usual
<text>	Enclosed speech was delivered more slowly than usual
((text))	Annotation of non-verbal activity

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FIELDS OF STUDY

Major Field: Cognitive Science

Studies in Social Interaction

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ABSTRACT OF THE DISSERTATION

Norms of Knowledge:
Navigating Epistemic Territory

by

Rachel Elizabeth Bristol

Doctor of Philosophy in Cognitive Science

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Professor Federico Rossano, Chair

Communicating with others is not as simple as broadcasting a message; that message must be calibrated to one's audience. How exactly we are able to formulate an understanding of others' minds is a quintessential question in philosophy, psychology, and cognitive science, among other fields, but it is a well-established fact that we are especially adept at doing so.

Close observation of conversational interaction offers a window into at least some of the tools that enable us to navigate the knowledge states of others and tailor messages to suit particular recipients. This dissertation explores social and moral norms that govern management of relative authority over knowledge in conversational interaction.

This dissertation draws on several sources of data, including a corpus of recorded unstructured conversation between close friends, recordings of the collaborative completion of an experimental task by strangers, and survey data from online participants making social judgments about written transcripts. This dissertation presents evidence, across four chapters, that participants in conversation orient to a normative expectation that what one actually knows (epistemic status) will be accurately reflected in how one talks about that knowledge in interaction (epistemic stance), both within an individual (don't misrepresent your own knowledge) and between individuals (don't treat others like they know more or less than they actually do). Violations of this norm are sanctionable offences and participants take measures to avoid making violations (Chapter 1), make off-record challenges when violations are suspected (Chapter 2), and admonish and harshly judge parties who have committed obvious violations (Chapters 3 and 4), behavior which both reflects and reinforces the norm.

INTRODUCTION

Common Ground & Epistemic Territory

Every linguistic utterance is designed for a specific audience. Every spoken word, from mumbled self-talk to nationally broadcasted rhetoric, carries with it an imagining of the mind(s) of those that will likely hear it. Among other things, speakers must attend to the knowledge states of their recipients. Linguistic choices, large and small, reflect speakers' understanding of their addressee(s). Speakers choose the appropriate language, dialect, or register with which to address a particular party, and inflect their references to people, places, objects, and events according to their judgment of their audience's familiarity with them (Garfinkel, 1967; Sacks & Schegloff, 1979; Clark & Carlson, 1982; Bell, 1984; Sacks, 1995; Clark, 1996).

The phenomenon of so-called *recipient design* is thought to rely on the existence of large amount of shared information, beliefs, and assumptions between parties that preexist any given conversational interaction. This *common ground* creates a space of mutual understanding that can be built upon through linguistic exchanges (Clark & Marshall, 1981; Clark & Brennan, 1991; Clark 1996). The amount of common ground shared by any two parties varies. Some aspects, like an understanding of the sunset or the notion of family relationships, are common to virtually all humans. Other aspects are particular to specific cultural communities like those based around nationality, language, gender, occupation, or hobbies. Acquaintances, friends, relatives, and partners build up extensive common ground over time, sometimes drawing on decades of shared interactional history (Planalp & Garvin-Doxas, 1994).

Common ground sets the stage for communication to occur, but, as in the theater, the moment-to-moment actions of the actors are essential to the production of meaning. Conversational co-participants must continually make adjustments to their individual perception of their shared understanding as new topics arise during interaction. Common ground is not a one-shot set of assumptions that speakers make about their listeners before making an utterance, but rather a dynamic and collaborative interactive achievement (Sperber & Wilson, 1987; Krauss & Fussell, 1991; Brennan & Clark, 1996; Garrod & Pickering, 2004).

The collaborative creation of meaning in interaction crucially depends on both parties as well as on the situated context. As conversational co-participants take turns, the party not currently speaking (alternatively called the “listener”, “recipient”, or “audience”) makes important contributions to the unfolding utterance, both through nonverbal responses such as eye-gaze, gesture, and facial expressions (Goodwin, 1979; Bavelas, Coates & Johnson, 2000; 2002; Levinsonson 2006; Clark 2016) and by providing context for the current utterance with their previous turns at talk (Goodwin, 2013). The surrounding environment also provides semiotic resources for participants; the interacting parties and their surroundings form a *cognitive ecosystem* (Hutchins, 2010) which helps to explain the way that participants are able to design their utterances specifically for one another.

Part of recipient design is crafting an utterance one judges will likely be understood, but an equally important consideration is avoiding informing one’s recipient of something they already know. The fact that this is problematic has been noted many times: Goodwin (1979, p.100) echoes (Schegloff & Sacks, 1973) his observation that there is “a general rule that provides one should not tell one’s co-participants what one takes it they already know”.

This is something Grice (1975) managed to capture as well with the maxim of quantity: “1. Make your contribution as informative as is required; 2. Do not make your contribution more informative than is required” (p.45). What level of information is “required” depends on a speaker’s estimation of their audience’s knowledge state, and speakers must navigate between two fires when crafting utterances: their listeners should know enough to understand what is being discussed but ought not already know the information contained in a statement addressed to them. Incorrectly assuming that someone lacks knowledge, especially in particular domains, can be a source of conflict.

The possession of knowledge in certain domains is closely tied to both individual and social identities (Wooffitt & Clark, 1998; Raymond & Heritage, 2006; Stivers, Mondada & Steensig, 2011). Individual identities are partially constructed from an intimate knowledge of oneself and one’s experiences, and individuals mark their membership in various cultural groups partially through sharing common ground with other members (Sacks, 1979; Antaki, Condor & Levine, 1996; Antaki & Widdicombe, 1998). We are experts about ourselves and we become experts about our close associates, frequently inhabited locations, and skills and knowledge that surround habitual activities. Knowledge in these domains forms a sort of *epistemic territory*, or a collection of topics about which an individual is—and expects to be regarded as—an expert. Epistemic territory includes knowledge about inner states such as one’s “thoughts, experiences, hopes, and expectations” as well as knowledge about familiar topics and entities such as one’s “relatives, friends, pets, jobs, and hobbies” (Heritage, 2012a, p.8). More abstractly, epistemic territory includes knowledge about “internal direct experience... external direct experience... professional or other expertise... [and] information about persons, objects, events and facts close to the speaker” (Kamio, 1997, p.8). In

conversational interaction, it is especially important for speakers to make correct inferences about their listener's knowledge in domains within the listener's epistemic territory because implying that someone lacks knowledge in these domains can be perceived as a threat to identity.

The Epistemic Affordances of Language & Talk-In-Interaction

Languages provide a variety of recourses for users to mark both the source and certainty of information. Some languages have obligatory grammatical markings with which speakers indicate the way information was acquired, while in others, a variety of lexical items allow speakers to indicate their level of certainty about propositions they encode (Chafe, 1986; Ifantidou, 2001; Mushin, 2001; Aikhenvald, 2004). In conversational interaction, linguistic resources such as these are deployed alongside interactional resources such as “collaborative/anticipatory turn completion and recognitional overlap, sequence organization, and turn format” in order for speakers to express an *epistemic stance* towards information contained in their utterances (Heritage 2008, p. 309).

A distinction is often made between the more surface level notion of epistemic stance (various epistemic resources contained within actual utterances), and the deeper notion of *epistemic status*, which encompasses “what is known, how it is known (through what method, with what degree of definiteness, certainty, recency etc.) and persons' rights, responsibilities and obligations to know it” (Heritage, 2013, p. 558). There is a normative expectation that the epistemic stance adopted in utterances is an accurate reflection of underlying epistemic status.

Traditional studies of epistemic marking focus on the speaker's degree of certainty and devote comparatively little attention to listeners. Yet, epistemic marking, just as

everything else within an interaction, is a product of collaborative construction, and represents not just the relationship between a speaker and the knowledge embedded within their utterances, but the relative knowledge between the two co-participants in interaction (Heritage & Raymond, 2005; Sidnell, 2014). For most conversational topics, there is a more knowledgeable party (in K+ position) and a less knowledgeable party (in K- position). These are relative rather than absolute categories and the *epistemic gradient* between the knowledge of two interacting parties can be comparatively steep or shallow (Heritage, 2012).

Conversational co-participants are tasked not only with tracking the dynamically shifting epistemic gradient between them but also with attending to other relevant dimensions of interaction, like the social relationship between speaker and hearer, authority and entitlement with regard to particular information, and features of their situated context (Kamio, 1997; Fox, 2001; Raymond & Heritage, 2006; Stivers et al., 2011; Heritage, 2012). Speakers' choices about which of a myriad of epistemic resources to utilize within an utterance reflect a complex array of different social and epistemic considerations.

Epistemic Negotiation & Sequence Organization

Expression and negotiation of relative epistemic authority take place across sequences of turns-at-talk in conversation. When one party adopts an epistemic stance in a given turn, that stance is responded to—and sometimes adjusted—in subsequent turns at talk. There has been substantial work exploring the way that negotiation of epistemic stance can unfold through the first, second, and third turns of a given sequence.

At a basic level, the first position of a sequence can either *tell* or *ask*. These social actions loosely correspond to the use of declarative and interrogative syntax, but the mapping

is not one-to-one, (Schegloff, 2007; Heritage 2012a; Sidnell 2014). Telling and asking are two ends of a spectrum but they can be (and usually are) brought towards the middle with various epistemic markings. When telling, so-called *hedges* such as “I think” or epistemic modals such as “seem” can downgrade the authority of the statement, whereas asking can be made more authoritative with negative interrogatives such as ‘Isn’t it...’ or “Don’t you think that...?” (Heritage & Raymond, 2005; Heritage, 2013). First position utterances take an epistemic stance (K+ or K-), but also implicitly ascribe an epistemic stance to the recipient. A first-position speaker who asks a question is granting the listener K+ position while assuming the K- position themselves, whereas a first-position speaker who *tells* does the opposite (Heritage, 1984b; Heritage & Raymond, 2016).

The speaker in the second turn of a sequence can either accept or resist the epistemic stance that has tacitly been ascribed to them by the previous turn at talk. In the case where they are responding to a telling in first position, they can either treat the information as informative (by responding with *news receipts* like “oh”, “yeah?” or “really?”) or not (by responding with “I know” or “yes.”) (Schegloff 1996; Sidnell, 2014; Stivers 2005). News receipts in response to tellings maintain the epistemic gradient set up by the first turn, and other responses challenge it, vying for K+ position. If the first position turn contains a question, answering the question in second position maintains the K+ position granted by the question. Answering the question with an “I don’t know” flips the epistemic gradient, ceding K+ position to the questioner. Yet there are a myriad of ways to respond to questions that exist somewhere between straight-ahead (so-called *type-conforming*) answers and admissions of ignorance (Raymond, 2000). Answers that repeat (or modify and partially repeat) the preceding turn have more epistemic authority than those that don’t (Stivers 2005; Stivers et.al.

2011, Robinson, 2013), and responses prefaced with “oh” or “well” also increase epistemic authority (Heritage 1998; 2002b; 2015).

Because third position in a sequence is dependent upon the first two, the possibilities for epistemic negotiation in this position are quite numerous. In cases where the first position was a question and the second position is an answer, the third position often reports on whether that answer was informative or not – if there isn’t an “oh” or some other news receipt in this case, it is indicative of an issue (Heritage 1984a). In cases where there *are* issues, at least ones that were not apparent in the first turn at talk, the third turn provides a place to repair them (Schegloff, Jefferson & Sacks, 1977; Schegloff 1992). Resolutions of issues with epistemic stance in third turn have yet to be explored in detail.

Most work on epistemic negotiation across sequential turns-at-talk has focused on subtle epistemic disputes (typically in question-and-answer or assessment sequences) where the dispute is “typically brought off *en passant*, in the course of whatever else it is the participants are doing” (Sidnell, 2014, p.128). Cases of more explicit epistemic disputes have yet to be explored in detail. This is presumably because there are relatively unusual in ordinary conversation between friends.

Materials & Methods

The lens of conversation analysis (CA) provides an excellent view of the ways in which various linguistic and interactional resources can be used in conversation to negotiate relative authority over the domain being discussed. Much of this dissertation borrows methods from CA, observing a corpus of naturalistic conversational interaction, building and closely

examining a collection of similar sequences, and drawing inferences about normative conversational structures and preferences (Goodwin & Heritage, 1990).

This dissertation complements the ecological and qualitative approach typical of CA with more experimental and quantitative methods that are more typically found in experimental psychology. There has been a recent movement to unite the insights available from CA with those available from other fields such as psychology (Potter & Edwards, 2012; Kendrick, 2017; de Ruiter & Albert 2017). This dissertation presents a multifaceted view of the ways in which people navigate one another's epistemic authority in conversational interaction by including multiple methods of analysis.

Outline of Chapters

This dissertation presents four chapters which examine epistemic negotiation and epistemic disputes in conversational interaction. The amount of conflict between interacting parties that is caused by these disputes increases with each chapter. In Chapter 1, there are very few instances of explicit contest or challenge to epistemic authority. In Chapter 2, there are challenges made to the epistemic stance adopted by one of the participants. In Chapter 3, participants discuss instances where epistemic challenges were made to identity-relevant domains within their epistemic territory. In Chapter 4, scenarios are presented where there is explicit disagreement between parties both about propositional content and epistemic authority between identity-relevant domains.

Chapter 1 presents data from unacquainted UC San Diego undergraduate students who were brought into the lab and recorded while performing a collaborative knowledge-based task. Afterwards, they were given a survey asking about their perceptions of their relative

knowledge about components of the task. We argue that various features of the interaction show that participants made deliberate efforts to present themselves as having a shallow epistemic gradient. This created a peer relationship between strangers, making both affiliation and collaboration easier. Explicit challenges and disagreements were rare in both the data and in the post-task survey. Most of the challenges that were made were made off-record.

Chapter 2 presents data from unstructured interaction between close friends and a close examination of cases where changes were made to the epistemic stance of one of the participants. We argue that conversational participants orient to a norm of *epistemic felicity*, or an expectation that epistemic stance ought to accurately reflect epistemic status. In cases of apparent epistemic stance-status mismatch, participants utilize the mechanisms of conversational repair to alter their assumed stance. Other-initiated “repair initiations” are done in an ambiguous, off-record way, illustrating the social significance and sensitive nature of epistemic challenges.

Chapter 3 presents additional data from unstructured interaction between close friends and examines more explicit cases of epistemic challenges. We present a collection of cases in which one party tells a story about a former incident where an absent third party made authoritative comments about a domain within the speaker’s epistemic territory. We argue that these incidents were identity-threatening and that sharing narratives about the incidents with friends is a way to validate the speaker’s identity.

Chapter 4 presents data from a survey given to online participants asking about the relative acceptability of experimenter-designed conversational exchanges. These fictional exchanges were designed to explore the particular domains that belong within an individual’s epistemic territory and an exploration about how the perceived social acceptability of

epistemic conflict relates to the relationship between the interacting parties. We argue in favor of a hierarchical view of epistemic territory that takes into account the closeness of a given domain to a speaker's identity.

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CHAPTER 1

Preference for a Shallow Epistemic Gradient in Collaboration

Introduction

Conversational interaction is awash with propositions, many of which are laminated with expressions of speakers' epistemological considerations. Speakers often choose to include markers of the source, certainty, and likelihood of a given proposition as well as indications of the authority they have over the domain (Heritage, 2018; Drew, 2018). The ubiquitous use of various epistemic resources in conversation helps to explain how conversational co-participants are able to navigate their common ground and successfully design their utterances to suit the knowledge states of their recipients.

There are a myriad of resources both in language and interaction that participants can draw on in order to navigate the epistemic considerations of social interaction (Chafe, 1986; Heritage, 2008). For many topics in conversation, there is a more knowledgeable party (in K+ position) and a less knowledgeable party (in K- position), and participants interact across an epistemic gradient which may be steep or shallow depending on the relative knowledge of the two parties. In some cases, parties are equally knowledgeable about a given topic (e.g. about the current weather or time of day) and the parties are epistemic peers. As conversation progresses, participants dynamically adopt and adjust their respective epistemic stance with respect to new topics as they arise, inflecting their utterances with an array of different epistemic markers. Speakers can make epistemic upgrades with words like “definitely” or conversational maneuvers like partially repeating the previous turn-at-talk (Robinson, 2013). They can also make epistemic downgrades by using words such as “maybe” or “possibly” or by including a tag question like “isn't it” at the end of declarative utterances (Heritage &

Raymond 2005). The epistemic stances that participants choose to adopt depend not only on the knowledge they have but on other situational and social factors (Fox, 2001; Raymond & Heritage, 2006; Stivers et al. 2011).

Conversational participants navigate epistemic consideration alongside the management of other components of interaction. For instance, participants also work during social interaction to maintain their own positive self image and utterances demonstrate sensitivity to maintaining face (Goffman, 1955; Brown & Levinson, 1987). Often, higher stance is associated with positive face, although in some contexts the opposite may be true. Consider someone with an intricate knowledge of *Dungeons and Dragons*. If they are in the middle of a game, having knowledge in this domain elevates social status. In a conference room at work, it may lower social status.

Participants also navigate structural “preferences” of conversational interaction, such as the preference for agreement (Sidnell, 2010; Pomerantz, 2012; Pillet-Shore, 2016). Preferred conversational maneuvers, such as agreeing with assessments, tend to happen immediately and turn-initially, where as “dispreferred” maneuvers are often marked by things like delays, repeats, restarts, and accounts. Preferences are also context-sensitive, so that if a self-deprecating assessment is made by a speaker, disagreement becomes the preferred maneuver. Most structural preferences in conversation are oriented towards building affiliation between participants (Lindström & Sorjonen, 2012; Steensig, 2019). Trying to affiliate and take structurally preferred social actions can conflict with epistemic considerations. For instance, participants may wish to correct their co-participant if they have miscalculated the epistemic gradient between them but doing so may require disagreeing with

an assessment. Epistemic considerations can be a source of cross-cutting preferences in interaction.

In many cases of ordinary interaction, structural preferences and a desire for affiliation may override the desire to initiate epistemic contests (Robinson, 2006). We created an experimental scenario in order to put higher stakes on precise epistemic expression. We invited participants into the lab to collaborate on a knowledge-based task. We were interested in exploring the ways in which conversational participants expressed epistemic stances when confronted with topics where they are likely to have different levels of knowledge. We were also interested in determining which conversational maneuvers are more and less effective at communicating relative knowledge states and we explored connections between various features of participant interactions with a post-task-survey about participants' perception of their relative expertise.

We created experimental tasks that involved a selection of movies. The selection of movies was made based on results of several piloting surveys with a separate group of undergraduate students. Some movies were included that many students reported having seen and some were included that very few students reported having seen. The intention was for the experimental tasks to elicit a variety of epistemic stances—and possibly contests—from participants.

Materials & Methods

Dyads of unacquainted undergraduate students were brought into the laboratory to participate in an experiment. All participants gave informed consent and were compensated for participation with class credit through the university's research participation system. Each

dyad was given two envelopes, one of which contained 20 cards with movie titles on them, and the other of which contained 40 cards with brief descriptions of corresponding movie plots on them (See Appendix for a list of stimuli). Participants were given two tasks: matching movie titles with corresponding plots, and also arranging the matched pairs in chronological order by date of release. Participants were instructed that, when they had completed both tasks, they should cross the room to obtain and open a third envelope that contained a single piece of paper with both the correct pairings and chronological ordering to check their answers.

When a dyad indicated they were finished with the study, the experimenter re-entered the room and separated the participants before they each completed a survey about the activity they had just done. The survey asked participants to indicate their perception about their relative knowledge about each of the 20 movies in the experimental tasks. Upon completion of the survey, participants were debriefed on the goals of the study and dismissed.

Participants were filmed from three angles: two cameras were pointed towards participants' faces and upper bodies and one camera was directly overhead aimed at the table where participants arranged stimuli cards. Ultimately, the resolution of the overhead camera paired with the size of text on the cards made it impossible to reliably identify which cards participants were referring to with deictic words like "this" and "that" during the interactions, which limited some potential analyses of both gestures and specific movie titles.

Detailed transcriptions were made of everything participants said during their interactions. Transcripts were used as a basis for several different kinds of analysis. Details are included in relevant sections below.

Initial Exchanges

After the experimenter explained the experimental tasks and left the room, the majority of participants began their interaction by exchanging global information about their movie knowledge. We examined these initial exchanges and coded for some features of interest. The majority of dyads exchanged sequences pertaining to general movie knowledge in the first moments of the interaction and many did so before looking at *any* of the cards within the envelopes (see Table 1.1).

Table 1.1	
<i>Quantities of Initial Exchanges About General Movie Knowledge (out of 21 dyads)</i>	
<u>Category of Exchange</u>	
Before looking at any stimuli	10 (48%)
After looking at some/all stimuli	7 (33%)
No initial exchange	4 (19%)

Most of these initial exchanges involved participants downgrading their epistemic authority. Over half the participants made some declaration of their general lack of knowledge pertaining to movies in the first minutes of the interaction. Only a few participants made any sort of epistemic upgrade, and most of these were specific upgrades about experimental stimuli that were made after participants had seen some or all of the stimuli cards rather than general upgrades about movie knowledge in general. See Table 1.2 for a summary of initial claims.

Table 1.2	
<i>Quantities Initial Comments on Epistemic Authority About Movies (out of 42 participants)</i>	
<u>Type of Claim</u>	
General downgrade	24 (57%)
General upgrade	2 (5%)
Specific upgrade	6 (14%)
No initial comment	10 (24%)

In many of the dyads, one participant started the entire interaction by claiming they lack general movie knowledge prior to looking at any of the stimuli cards. In several of these interactions, their co-participant responded with a similar downgrade. In the extracts shown below, one participant begins the interaction with a downgrade and their partner responds with a similar downgrade:

Extract 1: Emily & Fred

01 EMI: I don't watch a lotta movies so I probably won't know any of
 02 these ((*laugh*))
 03 FRE: ((*laugh*)) I don't watch a lotta movies either
 04 EMI: ((*laughing*)) oh (hh) no (hh)

Extract 2: Raul & Quentin

01 RAU: I don't know too many movies
 02 QUE: Me either

Extract 3: Ursula & Victor

01 URU: I haven't seen that many movies
 02 VIC: Same.

In these and similar initial exchanges, the participant that makes the initial downgrade immediately lays claims to the K- position for the topic at hand. This is a surprising strategy, since possessing knowledge about a relevant topic may, in many cases, elevate social status. In this particular interaction, however, it may have been desirable for participants to avoid being held accountable for their answers on the tasks at hand and this consideration may have overwhelmed concerns about how a lack of movie knowledge may impact their reputation.

The participants in these interactions that respond to the initial downgrades with parallel downgrades may be orienting to the same desire for a lack of accountability, or they may be attempting to affiliate with their co-participants by mirroring their epistemic stance.

It seems that there is more space for affiliation when collaborating with someone with whom there is a shallow epistemic gradient. Sharing a similar amount of knowledge about a topic creates a peer relationship, and, in the unique social situation created by this experiment, there may have been a strong incentive for participants to present themselves to one another as epistemic peers. There was only one case in our data where a first-turn initial downgrade was responded to with an upgrade, shown below:

Extract 4: Terence & Stephanie

01 TER: I'm really bad at movies
02 STE: Uh- I'm pretty okay. So we'll see-hehe((*laughing*))

Rather than trying to match the epistemic stance presented in a first-turn downgrade, Stephanie claims the K+ position. However, her claim of knowledge is rather weak. She only claims to be “okay” at movies, and even this middling claim is mitigated by the adverb “pretty” that precedes it. She concludes with “we’ll see” suggesting that they will jointly discover its veracity during the experimental tasks. The weakness of her claim to knowledge, the disfluency at the beginning of her turn, and the coping laughter (Warner-Garcia, 2014) at the end of it collectively suggest that there is something about responding to a downgrade with an upgrade that is dispreferred. These features sharply contrast with the responsive downgrades shown in Extracts 1-3 which happen immediately and without hedging.

Although many participants began their interactions by making declarations of their (lack of) cinematic bona fides, another strategy adopted by several participants was to initiate the interaction with a question about the other party’s movie knowledge. In contrast with first-

turn declarations of ignorance, first-turn questions enable the asker to learn about their co-participants' knowledge state before adopting an epistemic stance of their own. Essentially, this strategy allows participants to survey the epistemic landscape before staking a claim. In the extract below, James asks an initial question and receives a downgrade as well as a reciprocal question. He responds to the question with one of the only two “general upgrades” in the dataset and claims K+ position.

Extract 5: James & Isabella

01 JAM: Do you watch a lot of movies?
02 ISA: No. ((*laugh*)) Do you?
03 JAM: Kinda? I know like- ((*removes first movie title from envelope*))
04 ISA: Okay
05 JAM: I know this is pretty old.

The upgrade here in line 3 is weak, similar to the one shown in Extract 4. James only claims to “kinda” watch a lot of movies and gives this answer with rising intonation typical of a question. He begins to make a more specific claim about his movie knowledge when Isabella acknowledges his upgrade with “okay” and James launches into a specific claim about the first card he has extracted from the envelope.

Other initial question-askers decided to downgrade after hearing an answer from their co-participant. In the extract below, Brian asks about Anna's movie knowledge, and, after he receives a sort of non-answer from Anna, he claims K- position in the subsequent turn.

Extract 6: Brian & Anna

01 BRI: Have you seen any movies?
02 ANN: (0.5) We'll see if I know these ((*smiling*)) (hhh) or not
03 BRI: I don't watch(.) many movies, so hopefully..
04 ANN: Yeah °hmmm°

Brian's question in line 1 is similar to the question in Extract 5 and his downgrade in line 3 is similar to the initial downgrades shown in Extracts 1-3. This extract is most notable because of Anna's ambiguous non-type-conforming answer in line 2 (Raymond, 2000). She avoids the

polar question and instead makes related statement about discovering her knowledge during the activity. The “we’ll see” that she uses is reminiscent of Stephanie’s upgrade in Extract 4. The “we” pronoun emphasizes the joint nature of the upcoming tasks. Although Anna makes no explicit claims about her movie knowledge (and her comment was coded accordingly), it appears as if she is avoiding making an upgrade. She does not claim either a K+ or K- position, but, given the readiness with which other participants claimed K- position, and the indicators of hesitancy in Anna’s turn, it seems like she is avoiding revealing that she believes herself to be in a K+ position. The non-type-conforming answer, the delay, and the smiley breathy conclusion of her turn suggest she is reluctant to answer the question, and moreover, suggest that she is reluctant to answer in the affirmative.

Other upgrades made by participants in initial exchanges were all in regard to the particular group of movies presented in the experimental tasks after they had seen at least some of the stimuli cards. One initial exchange contained two of these, that were symmetrical in much the same way that many of the initial downgrades were. Prior to the extract below, Kate & Lily have spent time quietly laying out all of stimuli cards for both titles and plots. Lily makes a specific upgrade and Kate claims to be Lily’s epistemic peer.

Extract 7: Kate & Lily

01 LIL: °I feel like° a decent amount of these °are familiar°
02 KAT: Yeah. Same.

Lily’s upgrade here is weak, similar to those in Extracts 5 and 6. Lily only claims familiarity, not knowledge, and she hedges by prefacing her claim with “I feel like”. Although the extent of her actual movie knowledge is an empirical question that will be revealed throughout the activity, her feelings are exclusively within her authority. This particular hedge allows her to remain free of being accountable for getting the right answers on the tasks. The comparative

quietness of the parts of her utterance that specifically pertain to her claim suggest she is somewhat hesitant even to make this mitigated upgrade. Kate immediately matches Lily's claim with no obvious hesitation or hedging. This suggests that, although first-turn upgrades may be problematic, upgrades themselves are not inherently so. Kate may be doing something similar to the second-turn speakers in Extracts 1-3 where they mirrored the adopted epistemic stance of their co-participants.

Three of the other specific upgrades made during initial exchanges were also first-turn assertions of knowledge which likewise contained markers of hesitancy. In Extract 8, after the partners have worked to lay out all of the stimuli cards, Elizabeth makes an assertion of knowledge:

Extract 8: Elizabeth

01 ELI: Ok I know (.5) °a lot of (.) these°

Although syntactically, this is one of the baldest assertions of knowledge in the entire dataset, the pause after “know” and the low volume of the remainder of the utterance suggest some orientation to first-turn upgrades being dispreferred. The other two first-turn specific upgrades were made after participants had only seen about a few of the stimuli cards. In Extract 9, Peter has begun laying out movie titles and has gotten through the first five when he makes the following claim:

Extract 9: Peter

01 PET: <I've seen (.7) so:me of the:se>

This claim is relatively strong, hedged slightly by the pause and slow pacing. Peter appears to be speaking *while* calibrating his own knowledge of the movies on the cards. In Extract 10, Lucas points to a set of six movie cards his partner has laid out and makes the following assertion:

Extract 10: Lucas

01 LUC: <I think I have seen all of these movies>

Lucas's claim is also relatively strong, mitigated only by the slow pace of it and the verb "think". In Extracts 9 and 10, the claim only pertains to a few of the stimuli cards, not to the entire set. Although these are relatively strong claims linguistically, they are asserting knowledge over a relatively small sets of information.

The participants seem to orient to having too much movie knowledge being a problem. There were almost no claims made about having general movie knowledge, and a striking number of declarations about lacking movie knowledge. Epistemic downgrades were made readily, often before participants had any idea about the title or number or identity of movies in the envelopes. The few epistemic upgrades that were made were typically constrained to the specific stimuli in the experiment and hedged with words like "think" or "probably" and marked as dispreferred with things like delays, pauses and low volume. The epistemic downgrades, in contrast, lacked these markers; they were often broad, bald, and immediate. Participants who say choose to say nothing about their movie expertise show signs of concealing knowledge rather than concealing ignorance, suggesting again that assuming the K+ position is a problematic maneuver.

From many of these initial exchanges, it seems that participants generally prefer to adopt a K- stance. However, some participants also orient to epistemic downgrades being problematic—some are even accompanied by apologies. These participants often receive comfort from their co-participants, suggesting both parties orient to some dispreferred elements of declaring a lack of knowledge. In Extract 11, Hank, like many other participants,

claims he rarely watches movies. Unlike most other participants, however, he apologizes for it. His co-participant Gaby offers comfort.

Extract 11: Hank & Gaby

01 HAN: Jeez I never - I nearly never watch movies. I'm sorry. My bad.
02 ((*laugh*))
03 GAB: That's okay.

Hank's apology in line 1 points to his orientation to K- position being an issue. Gaby does not make any claims about her own knowledge but instead responds to Hank's apology with comfort, reassuring him that it is okay that he is an infrequent movie watcher.

In this next extract, Yazmin apologizes repeatedly for her lack of movie knowledge and Zadie repeatedly offers comfort as well as responsive downgrade. The dyad has taken about a third of the stimuli cards out of envelopes before this exchange.

Extract 12: Yazmin & Zadie

01 ZAD: Do you recognize any of these?
02 YAZ: No
03 ZAD: Casablanca's old (.) ish
04 YAZ: >Omgod< sorry. I don't(.) kno:w
05 ZAD: Whatzup?
06 YAZ: Wait was there any kind of like re-reques requisite
07 prerequisite that you need to know all - all the movies?
08 ZAD: No no
09 YAZ: 'cause I haven't watched anything
10 ZAD: ((*laughing, smiling*)) it's okay
11 YAZ: So I know - I know Inception but
12 ZAD: Okay
13 YAZ: Oh >yeah yeah yeah< I think I know
14 ZAD: Okay I mean that's recent enough that we both know it
15 YAZ: [((*LAUGH*))]
16 ZAD: [((*LAUGH*))]
17 YAZ: I'm sorry - okay um:
18 ZAD: It's fine it's fine
19 YAZ: Oh yeah >°I know this one°<
20 ZAD: Listen. I am also thee. worst. person. to know because I
21 haven't watched a movie in forever.

Yazmin strongly orients to her lack of movie knowledge as a problem for the interaction, downgrading in lines 2, 4, and 9 and apologizing in lines 4 and 17. She inquires in lines 6-7 whether there was any sort of requirement that participants have movie knowledge. After

answering this question in line 8, Zadi offers comfort with her “it’s okay” in line 10 along with a smile and laugh. She repeats “okay” in lines 12 and 14 and suggests that recent movies might be the only spot where they have mutual knowledge. Both parties laugh loudly in lines 15-16, an apparent break in the tension. Yazmin repeats an apology in line 17, Zadi offers comfort again in 18. Even after Yazmin apparently moves on and makes a claim about a particular movie in line 19, Zadi makes a strong general downgrade in line 20, claiming an even lower K- position than Yazmin. Zadi, she claims, is the singularly worst person for the experimental tasks. This responsive downgrade seems affiliative, another way of offering comfort to someone in a K- position by suggesting that you are in the position together.

In this next extract, another participant orients to her epistemic downgrade being problematic in the initial moments of the interaction. In Extract 13, Brook appears increasingly uncomfortable as she and her partner begin the activity and she does not immediately contribute to matching movie and plot cards. After Brook’s epistemic downgrade, her co-participant Amanda makes a specific epistemic upgrade rather than a responsive general downgrade, and, although she eventually offers a comforting “it’s okay”, it is delayed by many turns and periods of silence.

Extract 13: Brook & Amanda

01 BRO: I don’t watch movies so-
 02 AMA: ((*laugh*))
 03 BRO: I don’t really watch movies ((*laugh*))
 04 AMA: ((*laugh*))
 05 AMA: I guess we could just - ((*laying out cards with movie titles*))
 06 BRO: I don’t (.) ((*shaking head*)) I don’t know any of this-((*points at card*)) oh, I know Forrest Gump, b(hh)t ((*laugh*))
 07
 08 AMA: Yeah. ((*laying out more title cards*)) Maybe you can like pull
 09 aside the ones that you are- you know?
 10 (16) ((*both lay out the remainder of the stimuli cards*))
 11 AMA: <°I think I prolly do know most of these°>
 12 BRO: ((*sigh*))((*leans back & adjusts hair*)) I don’t know a lotta them
 13 ((*adjusts glasses, plays with ring*))
 14 AMA: (1.0) <°let’s see:°> ((*begins matching title & plot cards*))
 15 (13) ((*Amanda matching cards*))

16 AMA: Well I'll just do the ones that uh (.) I think I know for now
 17 and then=
 18 BRO: =Uh-huh=
 19 AMA: =we can talk about it
 20 (14) ((Amanda matching cards))
 21 AMA: Do you know when Inside Out came out?
 22 BRO: ((shakes head, sighs))(3.2)°This is like the wrong study for
 23 me° ((laugh)) I don't watch- I don't watch movies ((touches
 24 hair))
 25 AMA: -> Oh, that's okay↑

Lines 1-2 of this interaction resemble the beginnings of many other interactions, with a general downgrade and coping laughter that acts to mitigate face-threats (Warner-Garcia, 2014). But, where in other exchanges there was a responsive downgrade or comfort, there is nothing verbal from Amanda in line 2. Brook repeats her downgrade in line 3 and both parties laugh. In line 5, Amanda, without offering commentary on either party's knowledge, begins to suggest a strategy for completing the tasks. As Brook begins to look at a few movie titles, she makes a more specific downgrade in line 6, paired with a claim about knowing a single movie (*Forrest Gump*), presented as an exception to her general downgrade with the use of "but". In lines 8-9, Amanda suggests that Brook can just work on the movies that she *does* know.

After 16 seconds of silent stimuli card arranging, Amanda makes a specific epistemic upgrade in line 11. This, like many of the upgrades by other participants, is mitigated. Amanda hedges with "think", "probably", and low volume. Her emphasis on "do" suggests this claim is contrastive, perhaps either to Brook's claim of lacking knowledge, or an expectation that Amanda would be in a similar epistemic position. This upgrade seems to increase Brook's distress about not knowing. She sighs and distances herself from the table, withdrawing from the both the social interaction and experimental tasks. She touches her hair, adjusts the position of her glasses and fiddles with her ring, all self-comforting gestures. This is paired with another downgrade, emphasizing that she doesn't know "a lot" of the movies on

the cards. In lines 14-15, Amanda begins working on the experimental tasks alone, not responding to Brook's embodied distress or verbal downgrade. After 13 seconds of working on the tasks, Amanda announces her process in lines 16-19: she will match the ones that she "thinks" she knows before the pair discuss. The "think" here is another hedge of knowledge. After another 14 seconds of silent solo work, Amanda consults Brook with a specific question in 21, to which Brook replies with more general downgrades and embodied displays of distress. She is strongly orienting to her lack of knowledge being problematic. Finally, in line 25, Amanda offers comfort, telling Brook that it is "okay" that she does not know.

The apologies-made and comfort-given in these Extracts 11-13 suggests that at least some participants orient to a lack of movie knowledge as a problem. This may be especially the case when, as in Extract 11, 13 and the first part of Extract 12, there appears to be a steep epistemic gradient between the two parties. Participants may be justifiably concerned that knowing significantly less about movies than their partner may create unbalanced labor on the completion of the experimental tasks. This concern creates issues for both the K+ and K- parties.

The social situation created by the experimental tasks was unique and it seems to have created cross-cutting preferences for participants. There are many indicators that, in this unique context, participants oriented to both epistemic upgrades and downgrades as problematic. Claiming to lack movie knowledge made participants less capable of completing the experimental tasks, in some cases creating an uneven division of labor. On the other hand, claiming to *have* movie knowledge made participants accountable when eventually their tasks performance was evaluated (when they checked the answer sheet). Claiming to either have or lack movie knowledge may have had independently contributed to social judgements as well.

Admitting to not-having seen a popular movie could be damaging to one's status, but so too might be coming across as a cinephile and a know-it-all.

From the web of cross-cutting preferences for and against both K+ and K- positions, a preference that seems to have emerged in this specific scenario was one for mirroring the epistemic stance of one's co-participant. Most epistemic downgrades received immediate and unqualified responsive downgrades, like those shown in Extracts 1-3. In Extract 7, an epistemic upgrade is mirrored in a similar way. In the extract below, a specific claim to be "better at TV shows" than movies is also responded to with a parallel claim.

Extract 14: Neville & Marcus

01 NEV: Have you seen a lot of movies?
02 MAR: Uh- I'm better at TV shows than movies
03 NEV: Okay
04 MAR: What about you?
05 NEV: Uh, I- Aw shit, I might be the same as you

After an initial query in line 1, Marcus makes a downgrade about his movie knowledge. This, downgrade, however, is placed in contrast with TV shows. Marcus may be trying to save face by coupling his epistemic downgrade with a suggestion that he does possess knowledge in a similar domain. When presented with a reciprocal question in line 4, Neville claims to be "the same" as his co-participant, something that seems desirable in many similar sequences.

Although Neville includes an expletive suggesting that their mutual lack of movie knowledge may be an obstacle for the experimental tasks, it seems that these two, like many other dyads, make efforts to present themselves as epistemic peers. Dyads in which there appeared to be a steep gradient between the knowledge of the two participants were treated as especially problematic. It seems that the best-case-scenario for participants in this particular experimental setting was to be together in ignorance, at an equally low K- position, and thus

equally able to participate in the experimental tasks and yet not to be held accountable for any mistakes that were made in its completion.

Interaction During the Experimental Tasks

While dyads worked to complete the experimental tasks, there were additional indicators that participants oriented to both K+ and K- positions as being problematic and suggestions of a general preference for a shallow epistemic gradient.

There were many more epistemic downgrades made by participants after their initial exchanges, many of which included indications of a generally negative attitude towards being uninformed about movies. In the following extract, Gaby claims she “should” have watched *The Breakfast Club*.

Extract 15: Gaby

01 GAB: ((*pointing at plot card*)) OH maybe this one is The Breakfast
02 Club
03 (0.9) Dang it, I should have watched it

Gaby’s use of “should” in line 3 indicates some manner of obligation to have seen this film. It could be that the use of “should” in sequences like this one has only to do with the scope of the experimental tasks—if participants had watched more movies, they would perform better on the tasks. However, there are other indications that the sense of movie-watching obligation extends beyond the immediate context and impacts participants’ social reputations.

One dyad that orients to a lack of movie knowledge being shameful is one in which both parties had intense difficulty with the experimental tasks. After they have made a few plot-movie pairings and are struggling to find more, Brian reports concern about the perception of the experimenters:

Extract 16: Anna & Brian

01 ANN: At this point I'm just gonna like-
02 BRY: Yeah. I'm just making sure that we don't look like we're losers
03 to the ((*laugh*))
04 ANN: ((*laugh*))
05 BRY: experimental team

In line 1, Anna makes the beginning of an announcement about her matching strategy. Based on prior context, it seems like she is proposing matching things randomly (something the dyad agrees to formally shortly after this extract). In line 2, Brian agrees with this incompletely articulated plan but also implies that they must continue trying so that they do not come across as “losers” to the experimenters watching them. A lack of movie knowledge, at least for this dyad, is something to be ashamed of.

There were many additional sequences in the dataset that demonstrate a similar attitude to a lack of movie knowledge, including many in which one party expresses shock and surprise that their partner has not seen a particular film. For instance, in the following extract, Fred is surprised that Emily has not seen *Casablanca* and Emily reacts emotionally and defensively:

Extract 17: Fred & Emily

01 FRE: I know *Casablanca*'s really old that's a black and white movie
02 (2.0) ((*moves card to top of table*)) I'm surprised you've never
03 seen Casablanca
04 EMI: (1.0) °I probably have seen it. I just don't know what- I don't
05 know° >I'll NOT GET INTO IT< ((*laugh, hand over mouth*)) I DON'T
06 REMEMBER NAMES and like-
07 FRE: Breakfast club is around this era, right?

After Fred's remark in lines 2-3, Emily pauses and then very quietly reports that she has “probably” seen *Casablanca* but that she might not remember the details. She then loudly laughs through an explanation about how she is not great at remembering names. For Emily, it seems that admitting to being bad with names is preferable to admitting to not-having-seen this particular movie. In lines 4-5 as she speaks quietly, she seems embarrassed and in lines 5-

6, as she speaks loudly, she seems defensive. Fred does not engage with her reports and initiates a new topic in line 7 with a suggestion about the relative release date of another movie.

In a similar extract, Jackson expresses surprise that Irene hasn't seen *Inside Out*:

Extract 18: Jackson & Irene

01 JAC: Wait do we (hhh) I know the plot for Inside Out- have you seen
02 Inside Out?
03 IRE: No
04 JAC: That's the- >↑wait you really haven't?↑< okay okay um: let's see
05 um:

In lines 1-2, Jackson takes a K+ epistemic stance with regards to the movie-plot match for *Inside Out*, and then inquires about whether Irene has seen the film. She quickly reports that she has not in line 3 and, in line 4, Jackson appears to begin a description of the plot when he restarts with a higher-pitched exclamation of surprise at Irene's answer. His repetitions of "okay" and "um" at the end of his turn suggest that, similar to Fred in Extract 17, he is eager to move on to the new topic. Fred and Jackson, having made the face-threatening remark that their partners' lack of movie knowledge is contrary to normative expectations, initiate new topics as quickly as possible. Their comments have highlighted a steep epistemic gradient and they appear eager to move on from it.

Even when neither party has seen a particular film, participants still sometimes orient to an expectation to having seen it. For instance, Neville expresses surprise that Marcus has not seen *The Godfather*, although quickly adds that he himself has never seen the film:

Extract 19: Neville & Marcus

01 NEV: You haven't seen The Godfather? (.) I mean I haven't but I'm
02 surprised you haven't
03 MAR: ((*laugh*))

Neville and Marcus, as well as other participants, seem to believe that there are some movies that it is safe to assume others have seen. In addition to being surprised when their partners have not seen these films, some participants mention this expectation explicitly. For instance, in the following extract, Quinn & Russell agree explicitly with what Neville & Marcus oriented to implicitly: everyone has seen *The Godfather*.

Extract 20: Russell & Quinn

01 RUS: Have you seen The Godfather?
03 QUI: No. Everyone has and I haven't
04 RUS: °unh Same. I haven't watched this movie°
05 QUI: An'then there's like a bunch of like (.) things that people say
06 about it an'like (.) I don't get i:t↑ I don't get your
07 reference.

Russell and Quinn report not having seen *The Godfather* and Quinn describes the experience of hearing references to it from others. Certain movies become deeply rooted in popular culture and our stimuli set captured a few of these. Cultural literacy seems to include having seen these films, or at very least being familiar with them. Even when neither party in a dyad has seen one of these films and there is no epistemic gradient created by disparate experience, participants identify as members of a minority out-group of non-watchers.

Of course, the precise movies that are considered required viewing differ between different cultural subgroups and age groups. According to Yazmin and Zadie, “everyone in the world” has has seen *Romeo and Juliet*, *Mean Girls*, and *Titanic*, none of which were part of the experimental stimuli. In the following extract, these two identify as members of a small group of people who have not seen even the most widely known movies.

Extract 21: Yazmin & Zadie

01 ZAD: Dude I think we're like the two worst people for this
02 YAZ: [((*laugh*))]
03 ZAD: [CUZ I DON'T WATCH MOVIES EITHER] like like shit like Romeo'n
04 Juliet I >havn'even< watched that film or Titanic↑ like
05 [everyone-]

06 YAZ: [I haven't] watched that- ((*laugh*))
 07 ZAD: Or like those two movies like Mean Girls↑ and Titanic↑ everyone
 08 in the world probly has seen it but not me. S(hh)o:
 09 YAZ: Same [I don't even know what] Mean Girls-
 10 ZAD: [I I also sa- I don't even-] okay

Zadie makes an extreme epistemic downgrade in line 1, saying she and her partner are among the worst possible participants for this experimental task. She repeats exaggerated downgrades in lines 3-5, 7-8 and 10, saying that she simply does not watch movies and has not even seen films that “everyone” can be expected to have seen. Yazmin makes parallel downgrades in lines 6 and 9, often in overlapping talk, apparently eager to assure Zadie that, as she declared in line 1, the partners are together in the minority group of people who lack movie knowledge. This extract illustrates a general pattern of participants mirroring one another’s K- stance in an affiliative fashion.

Participants display an orientation to a general expectation to have seen particular films in a variety of ways. In addition to displaying surprise when their partner hasn’t seen a film, some participants simply assume that their partner *has* seen a particular movie and then have to be corrected. In the following extract, Russel goes so far as to say he *knows* that his partner has seen *Inception*, only to be told otherwise. Near the beginning of the experimental tasks, Quinn is reading through and organizing the movie plot while Russell is looking at the movie title cards. When he comes across *Inception*, he suggests that Quinn has seen it:

Extract 22: Quinn & Russell

01 QUI: >I don't watch a lot of movies either<
 02 RUS: ((*shuffling through movie tile cards*)) Um ok I know you know
 03 this one, right? ((*places card on table*)) Inception.
 04 QUI: ((*sigh*)) Oh I didn't watch that one actually.
 05 RUS: >Oh okay< so that one's um mind traveling together
 06 QUI: they're mind traveling?
 07 RUS: People's dreams
 08 QUI: Oh. I might have to watch that now
 09 RUS: It's actually pretty good, ye:ah

After Quinn makes a general downgrade in line 1, Russell displays a unique way of offering comfort in lines 2-3 by attempting to make an upgrade on Quinn's behalf. *Inception*, in Russell's estimation, is one of those movies that everyone has seen and, by pointing out that Quinn must know this one, he is reassuring her that she knows enough to participate in the experimental tasks. However, Quinn has not, in fact, seen the film and corrects Russell in line 4 with a sigh and an "actually" (Clift, 2001). Russell describes the plot and recommends that Quinn watch it. Throughout this extract, Quinn is looking down at the table and organizing movie plot cards. Russell's apparent attempt to affiliate by suggesting he knows what she knows appears unsuccessful.

In a similar instance, Emily makes a statement which suggests that *Inside Out* is a movie everyone can be expected to have seen, and later laughs though an admission that she herself has not seen it.

Extract 23: Fred & Emily

01 EMI: Inside out should (1.4) pretty recogniz(hh)able (((*laugh*))
02 FRE: I don't- I've never seen it have you?
03 EMI: (1.4) ((*laughing*)) I(hh) (hh)haven't (hhh) seen it (hhh) but
04 (hhh) I could (hhh) guess what it (hhh)is I think

Emily seems to feel it is a safe assumption that Fred has seen *Inside Out* and that the plot will be easy to identify. Even though Emily has not seen this movie herself, she orients to it as something that is universally recognizable.

Participants display an orientation to lacking movie knowledge being a problem and a potential source of shame in a variety of sequence types throughout their completion of the experimental tasks. A variety of participants comment that they "should" have watched particular films, assume their partners have seen particular films, and/or display surprise when they find their partners have not. When admitting to their own ignorance about must-see

movies, participants appear embarrassed, defensive, or comment that they are in a small minority of cultural outsiders. In cases where one party exposes the other as far less knowledgeable about a particular film, they seem eager to move on as if from a social faux pas. Sequences of this type suggest, again, that participants prefer to be epistemic peers.

In addition to acknowledging a lack of movie knowledge being a problem, participants, somewhat paradoxically, also display an orientation to knowing too much about movies being a problem. There are several cases where participants who make confident movie-plot pairings subsequently account for their knowledge and present it as an exception, apologize for it, and/or offer comfort to their co-participants. For instance, in the following extract, Christine has just made the initial movie plot-title match for *A Beautiful Mind*, when Desdemona points at the pairing and comments that her own lack of movie knowledge is surprising. Christine then explains how she knows about the film.

Extract 24: Christine & Desdemona

01 DES: Can you believe I didn't watch that movie? (0.4) ((*laugh*))
02 CHR: ((*laugh*)) I saw it like in high school that's the only reason
03 why I know it

In line 1, Desdemona, like many other participants, seems to have an understanding that having seen a particular film—in this case *A Beautiful Mind*—is a normative expectation. After some laughter, Christine explains that the “only reason” she saw the film is because she saw it in school. Christine seems to be making an excuse for knowing about this film, suggesting that she would be in the same epistemic state as her partner were it not for something outside her control. In these three lines, Desdemona and Christine demonstrate the Catch-22 of both knowledge and ignorance being problematic for these interactions.

In a similar sequence, Ursula explains why she knows about *Silence of the Lambs* and minimizes the effort she put into acquiring the knowledge. This dyad has been working to put the movies in chronological order, when Ursula makes a claim about the date of release for this film.

Extract 25: Ursula & Victor

01 URS: I'm not sure. It is- I think it's like nineteen ninety three:
02 or fiveish because I did a movie class ((*laughing*)) about the-
03 VIC: Oh okay (0.8) yeah I feel so uncultured
04 URS: No it's okay. It was like the one unit class from Marshall or
05 something

In lines 1-2, Ursula makes a claim about dates and mentions this knowledge came from a class. Her laughter suggests she is a bit nervous about the claim, perhaps noticing the steep epistemic gradient she has set up by providing such detail (Victor has just reported not-knowing various specific movies prior to this extract). In line 3, he reports that his lack of movie knowledge is an issue, identifying as “uncultured”. In lines 4-5, Ursula provides comfort and then explains that the class she took was only one unit and further minimizes its importance by adding “or something” to the end of her turn. Here again, participants are showing how both having and lacking knowledge are issues for the interaction. Victor’s lack of knowledge presented as stigmatic and Ursula makes excuses for the knowledge she possesses. The underlying issue may be a steep epistemic gradient set up between participants.

Participants in a high K+ position often offer explanations and excuses for their knowledge or make efforts to minimize their epistemic stance. Another case of this is shown in the extract below when Neville literally apologizes for making a confident movie-plot match

Here, Neville is flipping through cards with movie plots, and is mid-way through reading one out loud when he instantly recognizes it and calls out the title. He then explains the source of his knowledge and says he is sorry.

Extract 26: Neville & Marcus

01 NEV: A thief using dream-sharing technology - Inception. I ca- I
02 should know this is my favorite movie of all time [sorry]
03 MAR: [okay haha]

Neville first makes the match, then reports that he knows this plot belongs to *Inception* because it is his favorite film, and concludes by saying he is sorry. This “sorry” may be because of the steep epistemic gradient or because he has made a match without consulting or collaborating with his partner Marcus. The apparent dislike of large differences in knowledge seems related to a desire to contribute equally to the completion of the experimental tasks.

There are a variety of sequences across a range of dyads during the completion of the experimental tasks that suggest that both having and lacking knowledge about movies are issues for the participants. Participants who identify as K- often present their lack of knowledge something contrary to expectations, a problem and/or a source of embarrassment. Participants who find themselves in the K+ position seem to make efforts either to elevate their partner’s stance or lower their own, alternatively offering comfort or moving on quickly from the steep epistemic gradient they have highlighted. Participants seem to prefer to present themselves as having a shallow—or nonexistent—epistemic gradient. This allows them to interact as peers and contribute equally to the completion of the experimental tasks.

Challenges and Disagreements in the Interaction

There were very few epistemic challenges or disagreements present in the interactions. After examining each utterance, we identified 51 instances of verbal challenges or disagreements in the entire dataset, representing only about 1% of total utterances.

Many of these challenges were made using the term “really”. We examined every occurrence of “really” in the dataset. There were 100 instances of this word and, in most cases, it was used as an intensifying adverb (e.g. “I’m really bad at movies” from Extract 4). Only 24 instances of “really” were questions, and, of these, 19 were apparent challenges and 5 were apparent markers of surprise, although the boundary between these cases was blurry. The 19 uses of “really” that seemed to function as challenges prompted significantly different types of responses from the party being questioned. For instance, in Extracts 27 and 28 below, Caleb and Elizabeth respond to “really” by downgrading the claim they had made in a previous turn:

Extract 27: Caleb & Donovan

01 CAL: I **feel** like this one is a black and white movie- I **feel** like
02 DON: Really?
03 CAL: I don’t remember

Extract 28: Elizabeth & Francis

01 ELI: °Silence of the lambs° this is like a scary movie
02 FRA: Really?
03 ELI: Yeah I think so °I don’t know now°

In both of these extracts, a speaker makes a claim in line 1. Caleb suggests *Gone with the Wind* is in black and white (and therefore that it is one of the first items chronologically), and Elizabeth suggests that *Silence of the Lambs* is scary (constraining the set of potentially matching plot cards). In the second line of these extracts, Donovan and Francis pose an identical question: “Really?”. In response, both Caleb and Elizabeth lower the epistemic

stance they had adopted in the first lines of these interactions. Caleb changes from the already-tenuous “I feel” to “I don’t remember” and Elizabeth changes from a relatively authoritative “this is” to a complete abandonment of knowledge, with “I don’t know”. Her use of “now” suggests that it is the intervening question that prompted her change of stance – she knew in line 1 but does not know “now” in line 3. In these and similar sequences, “really” as a question seems to function as an epistemic challenge and participants lower their epistemic stance in response.

In other cases where participants use “really” to ask questions, it garners confident affirmative answers and no change in epistemic stance. In Extracts 29 and 30 below, Lily and Neville respond to a questioning “really” with “yeah” and their partners accept this answer and move on with the interaction and experimental tasks.

Extract 29: Lily & Kate

01 LIL: I think this is one of the older, Indiana Jones movies
02 KAT: Oh really?
03 LIL: Yeah
04 KAT: Okay Um:

Extract 30: Neville & Marcus

01 NEV: Okay. Five high school students spend Saturday detention
02 together. That’s um, The Breakfast Club
03 MAR: Really?
04 NEV: Yeah
05 MAR: Sounds like a comedy movie

In the first turn of these sequences, Lily and Neville make propositions about the experimental tasks (the chronological position *Raiders of the Lost Ark* and plot match for *The Breakfast Club*). They are met with “really” questions, and both parties respond with a simple “yeah”. Their partners’ responses indicate they have accepted this response and are moving on. In line 4 of Extract 29, Kate explicitly accepts Lily’s defense of her proposition with “okay” and then an elongated “um” as she continues looking at stimuli cards. In line 5 of Extract 30, Marcus

makes a K- suggestion about the genre of the film by using “sounds” to make a deduction based on Neville’s comment, signaling his acceptance of Marcus’s epistemic authority on the topic. In these cases, “really” still seemed to function as a challenge, but one that was successfully defended against with a quick and simple affirmation.

In other cases, when a proposition was challenged, the participant defended against the challenge by providing evidence in support of the proposition. For instance, in Extract 31, Emily defends her knowledge of the plot for *Gone with the Wind* by reporting that she has read the book.

Extract 31: Fred & Emily

01 EMI: This one is Gone With the Wind
02 FRE: Are you sure?
03 EMI: Yeah. I’ve read the book.
04 FRE: Okay.

Emily proposes a plot-movie match in line 1 without any hedging. In line 2 Fred inquiries about her certainty. In line 3 Emily defends her proposed match with a “yeah” (similar to Extracts 29 and 30 above), as well as supportive evidence. In line 4 Fred accepts this with “okay”. This challenge was more explicit than those made using “really”, and it was unusual in this respect. There were only three instances of “are you sure?” in the entire dataset, the other two of which resulted in the challenged participant making a downgrade to their epistemic authority. Explicit challenges were rare.

Explicit disagreement was also rare. One participant flatly rejected a proposition made by their partner in only 13 of the 51 challenges or disagreement identified. One of the strongest disagreements from this group is shown in Extract 32.

Extract 32: Yazmin & Zadie

01 YAZ: Casablanca? Maybe Casablanca is this one
02 ZAD: No. It’s- I promise you it’s not
03 YAZ: Okay ((*laugh*))

04 ZAD: ((*laugh*)) I know some things

Prior to this extract, the parties have agreed that they are “not good” at the experimental tasks. In line 1, Yazmin makes a hedged proposition about a plot match for *Casablanca* in line 1 which Zadie strongly rejects in line 2. She backs up her rejection with “promise”, the only use of this word in the entire dataset. This is enough proof for Yazmin, who accepts Zadie’s point and laughs afflictively (Warner-Garcia, 2014). Zadie laughs responsively and makes a comment that she knows some things, a contrast to the collective orientation to their lack of movie knowledge prior to this extract.

Another of the strongest (and most expanded) disagreements in the dataset is shown below, when Nicole and Minerva disagree about the release date of *Forrest Gump*. Like Emily in Extract 31, both parties provide evidence to support their propositions.

Extract 33: Nicole & Minerva

01 MIN: Forrest Gump, that’s like a old movie
02 NIC: Uh no it’s recent
03 MIN: That’s not?
04 NIC: I’m pretty sure it’s rec[ent]
05 MIN: [No it’s] no:t
06 NIC: It’s recent
07 MIN: It is?
08 NIC: It i:s
09 MIN: I watched in high school
10 (1.1)
11 NIC: Okay it’s like - (1.9) new compared to Rai[ders-]
12 MIN: [okay] it’s like
13 older than inception
14 NIC: No:: ((*shakes head*))
15 MIN: It’s not?
16 NIC: ↑No:↑ I watched it recent-I watched it like a couple
17 Christmases ago and Inception I watched in junior school
18 MIN: (1.5) I watched it in junior school though (.) in my history
19 class
20 NIC: I’m so confu:sed
21 MIN: ((*laugh*))
22 NIC: Maybe - maybe it’s an old movie. Can we Google it? ((*laughing*))

The parties go back and forth repeatedly with contrary opinions. Minerva makes a proposition in line one, which Nicole directly disputes in line 2. Minerva challenges this dispute in line 3,

and Nicole defends her proposition in line 4, including a marking of her confidence (“pretty sure”). Before she has even finished this utterance, Minerva is again flatly disputing the proposition in line 5. Nicole repeats her proposition with emphasis in line 6, Minerva responds with an incredulous partial repeat in line 7 (Robinson, 2013), and Nicole again repeats her position with emphasis. In line 9, Minerva provides evidence to support her position: she remembers watching the film in high school.

After a period of silence in line 10, Nicole makes a new, more specific claim in line 11: *Forrest Gump* is “new” compared to *Raiders of the Lost Ark*, another movie on the stimuli cards. In lines 12-13, Minerva adopts a similar tact of comparing the film to other stimuli, saying that *Forrest Gump* is older than *Inception*. In line 14, Nicole flatly disagrees again, and Minerva responds in line 15 with another incredulous partial repeat. Nicole offers anecdotal evidence to support her new specific position: she remembers watching *Forrest Gump* just a couple years ago, but remembers watching *Inception* farther back in junior school. Minerva offers a parallel piece of evidence, that she remembers watching *Forrest Gump* as far back as junior school. In line 20, Nicole departs from the ongoing back-and-forth of disagreeing statements and declares her uncertainty. Minerva laughs and in line 22 Nicole concludes the sequence with a tentative acceptance of Minerva’s position, that “maybe” it is an old movie. The final comment about Googling the answer suggests acceptance of the back-and-forth debate being unable to result in agreement without the intervention of outside tools.

Coupled with the mirroring of epistemic stance we saw throughout the interactions, the rarity of challenges and disagreements suggests that partners are making strong and deliberate attempts affiliate with one another. Many challenges take of the form of “really” which is ambiguous. It may be a challenge, or it may simply be a marker of surprise. In some

cases (like Extracts 27 and 28), it is responded to with a lowering of the epistemic stance expressed in the previous utterance. In other cases (like Extracts 29 and 30), it is responded to with a militance of the previously adopted epistemic stance. More explicit challenges (like the “Are you sure” in Extract 31) were incredibly rare. Explicit disagreements were also quite rare and often mitigated with lots of laughter and hedging.

Frequency of Epistemic Lexical Items

Another way of examining norms surrounding the ways that participants upgraded and downgraded their epistemic authority is to examine patterns in the usage of particular words. We examined some lexical items of interest to capture general patterns in the way that participants made epistemic claims about movies in the experimental tasks.

We closely examined each occasion where participants used verbs specifically pertaining to prior experiences with the movies in question. We coded every use (and conjugation) of “see”, “watch”, and “hear” in the transcripts. We coded whether these verbs were used in either an upgrade or downgrade of epistemic stance, in a question, or in another way. In cases of epistemic upgrades and downgrades, we coded how many appeared with some manner of hedging. See Table 1.3 for overall frequencies.

Table 1.3							
<i>Patterns in usage of verbs pertaining to movie experience</i>							
<u>Verb</u>	<u>Total</u>	<u>Hedged</u>	<u>Total</u>	<u>Hedged</u>	<u>Questions</u>	<u>Other</u>	<u>Total</u>
	<u>Upgrades</u>	<u>Upgrades</u>	<u>Downgrades</u>	<u>Downgrades</u>		<u>Use</u>	
See	24	(6)	44	(14)	25	2	95
Watch	33	(4)	51	(4)	13	14	111
Hear	35	(7)	11	(0)	1	0	47
<i>Note: Hedged upgrades and downgrades are subsets of total upgrades and downgrades</i>							
<i>Note: 10 of the 14 other uses of “watch” had to do with plans or recommendations to watch a particular film in the future</i>							

Participants used “see” and “watch” more often to make epistemic downgrades (saying that they have not seen or watched a given film) than to make upgrades. With “heard”, the pattern was reversed. In many instances, these verbs were used together in a given utterance, as in the extract below:

Extract 34: Elizabeth

01 ELI: Maybe it's this one. Maybe. I've **heard** of the movie but I've
02 never actually **seen** it

Elizabeth pinpoints her familiarity with a given film by combining a negated version of “see” with an adjacent “heard”, indicating she has some—but not much—knowledge of the movie in question. The pattern of comments like Elizabeth’s is likely a result of participants simply not having seen many of the films that comprise the experimental stimuli. Many of the movies, especially the 10 films that were released before the year 2000, like *The Godfather*, *Casablanca*, and *Gone with the Wind*, are precisely the sort of film that contemporary undergraduate students are likely to have heard about but never seen.

Another pattern in the usage of these verbs is that there is a sizable amount of hedging, especially when using “see” to make an epistemic downgrade. 14 of the 44 instances where participants report not having seen a film are mitigated by an adjacent claim to have some knowledge of the movie regardless. 8 of these 14 instances contrast the verbs “see” and “hear” as in in Extract 27. This is yet another indication that participants orient to a lack of movie knowledge being an issue. Epistemic upgrades made using “see” contained a good deal of hedging as well, as in Extract 17 above where Emily claims she has “probably seen” *Casablanca*. Many other upgrades using “see” were coupled with comments that minimize the knowledge that one might expect after having seen a film, as the following extract:

Extract 35: Kate

01 KAT: Yeah yeah oh my god a lot of these? I can- I recognize and I've
 02 **seen** like a long time ago I have no idea though

Although Kate reports having seen many of the films, she minimizes the knowledge she claims as a result, noting that her movie viewing happened long ago and that she still “has no idea” about the correct answers to the experimental tasks. The fact that participants include hedging when upgrading authority again suggests again that they orient to possession of knowledge being an issue.

We also considered the frequency of other epistemic verbs (See Table 1.4).

Table 1.4	
<i>Frequency of epistemic verbs</i>	
<u>Verb</u>	<u>Count</u>
Know	445
Think	459
Feel	146
Guess	87
Remember	49
Recognize	9
Believe	9
<i>Note: 10 of the 49 occurrences of “remember” occurred with “don’t”</i>	

Unsurprisingly, participants frequently used the verb “know” while engaged in the experimental tasks. The high frequencies also of “think” and “feel” are indicative of the many hesitant claims that were made. Participants often suggest a potential movie-plot match or chronological position by saying that they “think” or “feel” something about the card’s proper position. The following extracts illustrate this common occurrence:

Extract 36: Anna

01 ANN: I **think** that’s (.4) ↑Slumdog Millionaire↑?

Extract 37: Fred

01 FRE: Finding Nemo came out before Slumdog Millionaire I **think**

Extract 38: Isabella

01 ISA: I **feel** Arrival's newer, but I don't actually know

Extract 39: Caleb

01 CAL: I **feel** like The Godfather's something, Godfather's the (.) like
02 ma- like mafia

Participants like those shown in Extracts 36-39 that make claims about the experimental tasks with the verbs “think” and “feel” are distancing themselves from accountability for accuracy on the tasks. Like Lily in Extract 7, they are reporting on their own inner states (thoughts and feelings) rather than making claims about truths in the world and directly suggesting answers to the experimental tasks. This pattern speaks to concerns about accuracy already discussed. It also reflects the simple fact that many experimental participants were unfamiliar with many of the experimental stimuli.

For the most frequently used epistemic verbs, (“know” and “think”) we considered which pronouns and negation markers these co-occurred with (See Table 1.5) during the main portion of the interaction.

Table 1.5							
<i>Frequency of occurrences of “know” and “think” with different subject pronouns and negative markers</i>							
<u>Verb</u>	<u>I</u>	<u>I don't</u>	<u>You</u>	<u>You don't</u>	<u>We</u>	<u>We don't</u>	<u>Other</u>
Know	140	187	61	3	11	8	35
Think	383	30	31	2	1	0	12

There are many more occurrences of “I think” than there are of “I know”, again reflecting the mid-range epistemic stance most often claimed by participants. There are more occurrences of “I don't know” than of “I know”, displaying the prevalence of epistemic downgrades made

throughout interactions. Almost all the uses of “you” when paired with these verbs were in questions. Overall, there were far fewer questions about others’ knowledge than expressions of one’s own. There were globally far more “I” statements (with 1468 utterances containing “I”) than statements about one’s partner (with only 350 total utterances containing “you”). There were also rather few uses of “we” in the main interaction (with 204 utterances containing “we”, and only 19 expressions of what the two parties “know” or “don’t know” in common).

We compared the use of pronouns in the main interaction and in the review period (See Table 1.6). The answer-checking portion of the experiment saw a dramatic change in the ratio of these pronouns, with much higher usage of “we” and discussion of shared knowledge.

Table 1.6		
<i>Approximate percentages of different pronouns in different phases of the interaction</i>		
<u>Pronoun</u>	<u>Main Interaction</u>	<u>Answer Checking</u>
I	73%	38%
You	17%	8%
We	10%	53%

Once participants agreed to check the answer envelope, the relative usage of both “I” and “you” decreased dramatically while “we” increased dramatically. It seems participants were more comfortable talking about their joint knowledge once they had a tangible sense of the correct answers. Prior to that point, declarations of one’s own thoughts were by far the most common method of suggesting answers to the experimental tasks.

We also made note of the frequency of other epistemically relevant lexical items during the main interaction. See Table 1.7 for some of the most common. Other terms not included in the table occurred very infrequently. For instance, there were no uses of “certain”,

“obvious”, “possible”, or “clear(ly)”, and fewer than 6 uses of “must”, “perhaps”, “doubt”, and “of course”.

Table 1.7	
<i>Frequencies of other epistemic lexical items</i>	
<u>Term</u>	<u>Count</u>
Definitely	42
Probably	67
Maybe	147
Might	65
Could	43
Sure	45
Not sure	65
No idea	39
No clue	9

Note: There were 24 other uses of *sure*, including 3 questions and 15 instances of agreement with a plan

There was globally much more usage of epistemic terms like “maybe” and “probably” and “not sure” to hedge claims than there was of markers of certainty like “definitely” and “sure”. This is yet another indication that participants were apprehensive about taking authoritative stances. This is likely due to both wishing to avoid accountability for wrong answers during the final stage of the interaction and participants genuinely being uncertain about the answers to the experimental tasks.

Coding Propositions

As another way of getting a global overview of the way that participants claimed and negotiated epistemic authority during the experimental tasks, we went through the transcripts and coded some utterances as “propositions”. In order for an utterance to be considered a

proposition, four features had to apply. First, the utterance had to make use of declarative syntax. (Tag-questions at the end of declaratively formatted utterances were included.) Second, the utterance had to be about one the experimental tasks (i.e. it had to involve either matching or chronologically ordering the stimuli cards). Third, the utterance had to be about *having* knowledge, not lacking knowledge. (Propositions were included even if they included extensive epistemic hedging.) And fourth, the proposition had to be able to be falsifiable (i.e. it was not a statement about a person's individual experience or perceptions, but a verifiable fact about the movies in the experimental tasks). We included propositions made using terms like "think" and "feel" but discounted subjective reports of movie quality or memories about movie viewing experiences. Four independent raters coded for propositions in ~33% of the data (7 of the 21 dyads). We calculated inter-rater reliability using Krippendorff's Alpha which indicated moderate agreement ($\alpha = .669$).

This coding gave us a global sense of the frequency of propositions that participants made during their interactions. Individuals made an average of 23 propositions while completing the experimental tasks and there was a wide spread ($SD = 14.8$). The maximum number of propositions made by a single participant was 59, and minimum was 2. We also checked to see whether there was similarity between the members of a dyad in terms of how many propositions each made. We found that there was no significant correlation in either direction between the number of propositions made by one participant and their partner, $r(19) = -0.0001, p = 1$. It seems that, while participants did seem to try to match one another's epistemic stance, they did not converge in terms of the number of propositions they made while completing the experimental tasks. The participants did not even converge on the overall number of words they used: we found no significant correlation between the number

of words uttered by partners, $r(19) = .20, p = .38$. There was, however, a significant correlation between the number of propositions made by a participant and total number of words uttered, $r(40) = .86, p < .0001$. Participants that talked more also made more propositions about the tasks.

Post-task Survey Results:

Each participant independently completed a post-task survey where they indicated their perception of relative knowledge for each of the 20 movies that were part of the activity. For each movie, participants indicated “I knew more than my partner”, “My partner knew more than me” or “We both knew the same amount”. There were thus nine combinations of responses possible. Three of these combinations we classified as “Total Agreement”, where both participants indicated they knew the same amount, or where they consistently reported which party was more knowledgeable. Two of these combinations we classified as “Competition” where both parties claimed that they were more knowledgeable, or where both parties claimed they were less knowledgeable. One of these is a “classic” competition (where both parties claim to have more knowledge) while the other is a sort of “modesty competition” (where both parties claim to have less knowledge). The remaining four possibilities we classified as “Slope Confusion” where one participant indicated both partners were equally knowledgeable and the other claimed that there was some kind of knowledge differential between them (reporting either that they knew more or less than their partner). See Table 1.8 for all the possible combinations of responses and their classifications.

Table 1.8			
<i>Possible combinations of post-task survey responses</i>			
<u>Speaker A Response</u>	<u>Speaker B Response</u>		
	<i>We both knew the same amount</i>	<i>I knew more than my partner</i>	<i>My partner knew more than me</i>
<i>We both knew the same amount</i>	Total Agreement	Slope Confusion	Slope Confusion
<i>I knew more than my partner</i>	Slope Confusion	Competition	Total Agreement
<i>My partner knew more than me</i>	Slope Confusion	Total Agreement	Competition

If participants were responding by chance, we would expect about 33% of cases to be “Total Agreement”, about 22% of cases to be “Competition”, and about 44% of cases to be “Slope Confusion”. This was not the pattern observed. A chi square test of goodness of fit indicates that the proportion of observed responses were significantly different than those expected by chance, $X^2(2, N = 417) = 190.2, p < .001$. Notably, there was much more agreement than would be expected by chance, and much less competition (See Table 1.9).

Table 1.9		
<i>Percentages of survey responses expected and observed</i>		
	<u>Expected</u>	<u>Observed</u>
Total Agreement	33%	63% (262)
Competition	22%	3% (11)
Slope Confusion	44%	35% (144)
<i>Note: There were 3 missing data points (movies for which only one member of a dyad responded)</i>		

The number of cases where participants were in total agreement about the epistemic gradient between them for a given film is almost twice what would be expected by chance. This is a testament to the skill with which conversational participants are able to calibrate one another’s epistemic authority over a given subject.

Another noteworthy feature of the observed patterns of survey responses is that epistemic contests were extremely rare in the data, with only 11 instances of participants disagreeing about which of them knew more about a given movie. Of these, 4 were “modesty competitions” where both participants indicated their partner was more knowledgeable, and 7 were “classical competitions” where both participants indicated that they were more knowledgeable. 5 of the 7 “classic competitions” occurred within one dyad that did most of the card-matching in silence and only discussed their answers after the cards had all been arranged. Although epistemic claims were often embodied in this particular task (e.g. by orienting, picking up, pointing at, or moving the stimuli cards), the unusual amount of competition on the survey from a dyad that worked in silence suggests that language is an integral part of communicating subtleties of relative epistemic authority.

Correlations Between Interaction & Post Tasks Survey

We explored the correlation between several features of the interaction and results on the post-task survey at both an individual and dyad level. We did not find any significant correlations at the dyad level. There was no significant correlation between the total number of claims made within a given interaction and the proportion of “total agreement” on the post-task survey, $r(19) = 0.12, p = .62$, nor between “total agreement” on the survey and the total number of words spoken within an interaction, $r(19) = 0.77, p = .74$. We also tested the correlation between agreement on the post-task survey and occurrences of the epistemic terms in Table 1.7 and none of these were significant either.

There were more interesting relationships between features of the interaction and the post-task survey at the individual level. We examined the correlation between the number of

propositions made by an individual and the number of times that individual selected different answers on the post-task survey. There was a significant negative correlation between the number of propositions an individual made and the number of times they selected “My partner knew more than me” on the post-task survey, $r(40) = -.44, p < .005$. We also examined the correlation between number of propositions an individual made and the number of post-survey responses where both parties in a dyad agreed that that individual knew more about a given movie. This weak positive correlation did not reach significance, $r(40) = .25, p = .11$). We made a similar comparison between the number of propositions and agreement that a given party knew *less* about a given movie, and this negative correlation was significant, $r(40) = -.46, p > .005$.

We also examined relationships between an individual’s use of epistemic terms typical of upgrades in the interaction and responses on the post-task survey. The number of times an individual used “I know” correlated positively with the number of post-survey responses where both parties in a dyad agreed that that individual knew more about a given movie, $r(40) = .37, p < .05$ and correlated negatively with the number of responses where the dyad agreed that that individual knew less, $r(40) = -.36, p < .05$. An individual’s use of “I know” also correlated positively with the number of times that individual reported “I knew more than my partner” on the post-task survey, $r(40) = .37, p < .05$, and negatively correlated with the number of times they reported “My partner knew more than me”, $r(40) = -.37, p < .05$. Use of “I know” did not correlate at all with reporting “We knew the same amount” on the survey, $r(40) = .026, p = .87$. We made similar comparisons between the number of times an individual used either “sure” or “definitely” but none of these were significant, possibly due to low frequency of these terms were used compared with “know”.

We also examined the relationship between use of epistemic terms typical of downgrades and survey responses. We created a composite “hedging” score for each individual based on the number of times they used downgrading epistemic terms from Table 1.7 (“could”, “might”, “maybe”, “probably”, “not sure”, “no idea”, and “no clue”). There were no significant correlations between this score and any pattern of responses on the post-task survey. We independently examined the relationship between an individual’s use of “I think” as well as “I don’t know” and survey responses and found no significant relationships. See Table 1.10 for summary of correlations.

Table 1.10						
<i>Pearson correlation coefficients for features of interaction and responses on post-task survey</i>						
<u>Survey Results</u>	<u>Propositions</u>	<u>“I know”</u>	<u>“I don’t know”</u>	<u>“I think”</u>	<u>Markers of Certainty</u>	<u>Hedging</u>
Dyad agrees this party knows more	.25	.37*	.22	.06	.07	.22
Dyad agrees this party knows less	-.46*	-.36*	-.18	-.12	-.14	-.25
Indicates “We both knew the same amount”	.22	.03	.07	.01	.10	.02
Indicates “My partner knew more than me”	-.44*	-.37*	-.30	-.12	-.16	-.30
Indicates “I knew more than my partner”	.26	.37*	.24	.14	.09	.31
<i>Note: * indicates statistical significance or $p < .05$</i>						
<i>Note: “Markers of Certainty” includes uses of “definitely” or “sure”</i>						

Although there are an abundance of both linguistic and embodied resources that participants can use to indicate their epistemic authority that are not captured by our

correlation analysis, the significant relationships between features of the interaction and survey responses is suggestive of a few of the most effective linguistic strategies. Use of “I know” corresponded with a dyadic agreement of having more authority. It also corresponded with an individual’s post-task reporting of knowing more than their partner. Interestingly, use of “I don’t know” was not associated with any patterns of responses on the survey. While “I know” successfully communicated authority, “I don’t know” did not seem to significantly correspond to a perceived lack of authority.

The other strategy that seems to have successfully communicated something about epistemic authority was the number of propositions an individual made. While this didn’t positively correlate with reports of authority on the survey, it did negatively correlate with a perceived lack of authority. Dyads were less likely to perceive an individual as being less knowledgeable when that individual made greater amounts of propositions. Larger numbers of propositions also corresponded with fewer individual reports of being less knowledgeable. So, by making more propositions, individuals seem to have expressed not that they *knew*, but that they didn’t *not* know.

Other epistemic markers did not significantly correlate with survey responses. “I think” seems to truly have been a middling way of making propositions and its use was not associated with any particular perceptions of epistemic authority one way or another. Markers of certainty and hedging did not correspond to any post-task perceptions at scale, although they may have communicated subtleties of epistemic stance not captured by this analysis.

Discussion

This exploratory study suggested a few patterns in the ways that conversational participants go about navigating one another's epistemic stance in a context where knowledge is made relevant by a shared goal. Several factors suggest that, in such a scenario, participants prefer to interact across a shallow epistemic gradient. There were various markers of participants' hesitancy to adopt either a high K+ stance or a low K- stance and a tendency of participants to mirror the epistemic stance of their partner.

Participants displayed reluctance to adopt an authoritative epistemic stance about movie knowledge. There were frequent task-initial and large scope epistemic downgrades with no markers of hesitation. Upgrades, in contrast, were infrequent and typically smaller in scope. Upgrades, both in initial exchanges and subsequently, were often hedged and marked as dispreferred with things like delays, disfluencies and low volume. Participants making claims about their movie knowledge sometimes excused or even apologized for having it. The observed hesitancy to make epistemic upgrades in this dataset is perhaps motivated by participants' concern about being held accountable for their knowledge during tasks-final performance evaluation. It may also reflect a concern about "talking down" to one's partner. Upgrades seemed especially problematic when they occurred across a steep epistemic gradient, occurring in the second turn after a partner has reported lacking knowledge.

In many cases, participants also displayed the opposite orientation: a reluctance to adopt a low epistemic stance about movie knowledge. Some of the initial downgrades are coupled with apologies and embodied displays of discomfort and they receive comforting comments from partners. Some subsequent downgrades are coupled with comments that suggest participants orient to a normative expectation to have seen certain films.

Conversational co-participants sometimes react with surprise when their partner has not seen a certain film, or simply make the assumption that they have seen it. This suggests that participants oriented to a lack of knowledge to being problematic, but also to a steep knowledge differential as being problematic.

The emergent preference for a shallow epistemic gradient may be a result of the unique situation created by the experimental tasks. These were strangers meeting for the first time and collaboratively completing an activity that they would be (in some sense) tested on. Participants confronted a tangled network of preferences: to do well on the tasks (making a K+ position desirable), to avoid losing face by being held accountable for incorrect task answers at its completion (making a K- position desirable), and to affiliate with their partner (making epistemic-stance matching desirable). Participants were instructed to collaborate on the experimental task and a steep epistemic gradient would have created an uneven division of labor. Affiliation and cooperation were likely strong affective motivations that in most cases seemed to outpace concerns about task performance.

The majority of dyads adopted a joint stance of being “bad at movies” together, an apparently optimal way to balance these competing preferences. This positioning allowed them to affiliate through shared epistemic stance; downgrades were most often responded to with parallel downgrades. Both K- partners were able to offer comfort to one another about the embarrassing nature of their lack of movie knowledge and affiliate as fellow outsiders to the imagined community of movie experts. A jointly low epistemic stance also enabled partners to collaborate effectively across a shallow epistemic gradient and making even the most tentative propositions about the experimental tasks acceptable. It also removed any accountability for correctness during the answer-checking part of the interaction.

The desire to affiliate was also evidenced by the incredibly low amounts of challenges and disagreements present in the interactions and the generally off-record nature of those that were present. Challenges were often made with an ambiguous “really” which participants were free to interpret as a challenge or not. Direct challenges (e.g. “are you sure?”) and disagreements (e.g. “no it’s not”) were rare as well. Participants seemed generally willing to accept one another’s propositions and claims of epistemic authority.

Examination of the frequency of particular lexical items and utterances that contain propositions offered further insights into patterns of epistemic expressions in this dataset. The frequency data supports the notion that participants globally made more epistemic downgrades than upgrades, with more instances of phrases like “haven’t seen” and “didn’t watch” than “saw” and “watched”. There were many more instances of “think” than of “know” reflecting the general hesitancy with which participants made propositions about experimental tasks. There were more markers of uncertainty (words like “maybe” and “probably”) than there were of certainty (words like “sure” and “definitely”). Participants made comparatively few comments about their partners (“you”) or their partnerships (“we”) than about themselves, perhaps reflecting hesitancy to ask or make statements about others’ knowledge. The ratio of pronouns changed in the answer-checking part of the interactions. Perhaps seeing objective facts made participants more comfortable talking about one another’s and their joint knowledge. Once the answers were jointly known, statements about the (in)accuracy of propositions were no longer speculative, and likely less face-threatening as a result.

Performance on the post-task survey demonstrated something that those who study social interaction have long known—that people are remarkably good at communicating

about their relative authority over knowledge. Well over half of the survey responses indicated that both participants agreed about which—if either—of them knew more about a given movie. This, coupled with the remarkably low number of contests in the survey data, show that even strangers are able to accurately communicate their epistemic authority with one another about a large amount of information in a small amount of time.

Exploration of correlations between features of the interaction and performance suggested a few pieces of the elaborate puzzle of communicating about epistemic authority. Our analysis suggests that the frequency of using the term “I know” and the number of propositions made by an individual both connected to their individual and shared perception of relative knowledge on the post-task survey. Both of these items suggested that a party was in the K+ position (or at least not in the K- one).

This study had a variety of limitations that make it difficult to generalize findings to typical conversational interaction. The participants were strangers immediately faced with a collaborative knowledge-based task followed by an examination. In contrast, typical conversation is between acquaintances without a knowledge-based test or an exam. Yet, this type of interaction is not altogether unfound in natural settings. Barely acquainted students sometimes collaborate on group projects, and adults of various relationships often elect to engage in things like bar trivia, escape rooms, or trivial pursuit. Nonetheless, the social situation created by our experimental tasks likely created somewhat unusual pressures on the participants, which may be a large driver of the competing preferences we have identified.

Other limitations on this study were due to the study design. The set of experimental stimuli were perhaps a bit *too* unfamiliar to the majority of participants, which certainly influenced the large number of epistemic downgrades we observed. Also, the two tasks given

to participants were perhaps too different from one another, which muddied various analyses. For movie-plot matching, there were binary correct and incorrect answers, whereas for the chronological ordering, the correctness of answers existed on a gradient. Temporal propositions were thus much less precise (e.g. saying a movie is “old” or “pretty old”) than proposed movie-plot pairings. Another challenge was the method of dispersing stimuli cards to participants in two envelopes. It often happened that each partner took an envelope and monopolized the cards for a brief period, which created an unequal task beginning since one party could simply skim through the title cards and the other had the much-wordier plot descriptions to go through. A future iteration of a similar paradigm would have fewer cards with only a single task and start interaction with all of the stimuli cards face-down on the table.

Other technical difficulties limited potential analyses, notably our inability to distinguish precisely which cards participants were discussing. This made it difficult for us to code embodied claims of epistemic authority that involved manipulating the cards or a precise matching of utterance to movie title in cases where propositions used deictic terms. Future iterations of similar paradigms would include visually distinctive markings on all the stimuli cards that could be seen clearly from all cameras. The lack of visual acuity was limiting also because information in the transcript was an incomplete portrayal of the interactions.

Participants frequently worked in silence or quietly mumbled through plot descriptions while reading them, limiting the information available in the transcript. In addition to more extensive coding of visual and embodied components of the interaction, future iterations of this study might include instructions to make sure to speak clearly or a replacement of movie plots with images from the films.

Patterns found in this study suggest certain trends in the ways that participants express and negotiate their relative epistemic authority and hint at topics that will be explored further in future chapters. The desire for affiliation may have been unusually strong in this experimental setup, but it does seem to be a general limitation on challenging others' epistemic stance. Challenges to epistemic stance were done ambiguously, often using "really". Chapter 2 will continue exploring the dynamics of such off-record challenges and compare them to the mechanics of conversational repair. Participants made occasional references to their movie knowledge being related to their identity, including references to their academic majors, nationalities, and age. Chapters 3 and 4 will explore knowledge domains that are more central to speaker's identities and examine issues where the desire for affiliation did not pose an obstacle to making epistemic challenges. This study suggests that participants preferred to collaborate across a shallow epistemic gradient. The findings in the final study of Chapter 4 pick up on this theme – there seems to be a dislike of "talking down" to others from a position of especially high authority. Each conversation, interaction, and collaboration entails navigating social norms surrounding expressions of epistemic authority. We explore these norms further in future chapters.

Appendix

Movie titles and plot descriptions used in experimental tasks.

Movie Title	Movie Plot	Release Date
Gone with the Wind	Depicts a turbulent romance during the American Civil War.	1939
Casablanca	A cynical nightclub owner in Morocco protects both her husband and an old flame from the Nazis.	1943
My Fair Lady	A snobby phonetics professor wagers that he can make a flower girl presentable in high society.	1964
The Godfather	The aging patriarch of an organized crime family transfers control of his empire to his son.	1972
Raiders of the Lost Ark	An archaeologist/adventurer must find a priceless religious relic before the Nazis do.	1981
The Breakfast Club	Five high school students spend a Saturday in detention together.	1985
Silence of the Lambs	A young FBI agent interviews an incarcerated cannibal serial killer.	1991
Forrest Gump	The social and political upheaval of the 1960s is seen from the perspective of a optimistic man with a low IQ.	1994
The Big Lebowski	'The dude' is mistaken for a millionaire by angry gangsters who ruin his rug.	1998
Memento	A man with short-term memory loss searches for the people who killed his wife.	2000
A Beautiful Mind	Based on the life of John Nash, a math genius with paranoid schizophrenia.	2001
Finding Nemo	A single father goes on an epic journey to find his lost son.	2003
Eternal Sunshine of the Spotless Mind	A troubled couple goes through a medical procedure to have each other erased from their memories.	2004
Juno	A pregnant teen seeks a suitable family to adopt her baby.	2007
Slumdog Millionaire	An impoverished teen surprisingly does very well on a game show.	2008
Inception	A thief uses dream-sharing technology for corporate espionage.	2010
Midnight in Paris	A man on vacation with his fiancée is surprised to learn he can time travel to the 1920s.	2011
Inside Out	A young woman has conflicting emotions after moving to a new town.	2015
Arrival	A linguist is recruited to translate an alien language for the government.	2016
Get Out	A young black man visits his white girlfriend's family for the weekend and feels increasingly unwelcome.	2017

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CHAPTER 2

Epistemic Felicity: When Epistemic Stance Needs Repair

Abstract

Conversational interaction occurs against a layered backdrop of what speakers know in common and what they do not. Expectations of others' knowledge permeate every utterance and are flavored by social considerations of both rights-to and responsibilities-for knowledge in various domains. Speakers adopt an epistemic *stance* in turns-at-talk through the use of linguistic and interactional resources, and there is a normative expectation that the assumed stance is an accurate reflection of the speaker's underlying epistemic *status*. Yet, this norm is sometimes violated. This paper examines cases where conversational participants orient to an epistemic stance-status mismatch. We argue that the mechanisms for resolving such mismatches can best be considered a type of conversational repair. We argue that several features of epistemic repair sequences, such as the opacity of repair initiation and markers of dispreference present in repair outcomes, both orient-to and reinforce the expected norm of epistemic felicity (i.e. consistency between epistemic stance and status).

Introduction

Language is, among other things, a tool for transferring information, and languages provide a variety of resources for users to mark both the source and certainty of information they encode. Some languages have obligatory grammatical markings with which speakers indicate the way information was acquired, while in others, a variety of lexical items allow speakers to indicate their level of certainty about propositions they encode (Chafe, 1986; Infantidou, 2001; Aikhenvald, 2004). These linguistic features, often referred to as

evidentiality or epistemic modality, can be deployed, along with other linguistic phenomena, to indicate an “epistemological stance” towards information contained within utterances (Mushin, 2001). The fact that languages contain such features evinces that epistemological considerations are relevant to language users. Indeed, close observation of conversational interaction indicates a ubiquitous concern with “epistemics” (a term which indexes both linguistic and interactional resources relevant to epistemological considerations) (Heritage, 2018; Drew, 2018).

Speakers make choices about which of a myriad of epistemic resources to utilize within an utterance, and these choices reflect not only the relationship between that speaker and the information embedded within their utterance, but also the relative knowledge between the co-participants in the interaction. Epistemic markings used in conversation reflect “the asymmetry that speakers assume to exist between what they know and what their recipients know” (Sidnell, 2014, p.128). The use of epistemic markings is sensitive to the relationship between speaker and hearer, the context of the interaction, and social meanings like authority and entitlement (Kamio, 1997; Fox, 2001; Raymond & Heritage, 2006; Stivers et al. 2011; Heritage, 2012).

The complex amalgam of access-to and authority-over knowledge is only ever imperfectly expressed in turns-at-talk. A distinction is often made between the more surface level *epistemic stance* (various epistemic resources deployed within actual utterances), and the deeper notion of *epistemic status*, which encompasses “what is known, how it is known (through what method, with what degree of definiteness, certainty, recency etc.) and persons’ rights, responsibilities and obligations to know it” (Heritage, 2013, p. 558). This notion of epistemic status is “inherently relative and relational” (Heritage, 2012, p. 4), so that, except in

cases where conversational participants have equivalent access to information (e.g. about the present weather), there is a more authoritative party (K+) and a less authoritative party (K-). This epistemic gradient can be steep or shallow, and participants can index the “slope” of their knowledge difference in a variety of ways (Heritage & Raymond, 2005; Heritage, 2012; Sidnell, 2014). A number of authors have explored some of the precise mechanisms by which conversational participants express and negotiate their relative authority over knowledge. For instance, speakers may downgrade the authority of declarative syntax by including *hedges* such as “I think” or epistemic modals like “seem” whereas they can strengthen the authority of interrogative syntax by including negative interrogatives such as “don’t you think” or “isn’t it” (Heritage 2012; Sidnell 2014; Heritage & Raymond, 2005; Stivers & Rossano, 2010; Heritage 2013; Heritage & Raymond, 2016).

These epistemic resources interact with the sequential position of conversational turns. Utterances in the first position of a turn-taking sequence take an epistemic stance (K+ or K-) but also implicitly *ascribe* an epistemic stance to the recipient. Then the speaker of the next utterance, in second position, can either accept or resist the epistemic stance that has tacitly been assigned to them by the previous turn at talk. They can outright reject the stance given to them (e.g. saying “I don’t know” in response to a question or “I know” in response to a news announcement) or they can fine-tune the relative epistemic gradient with more subtle maneuvers. There are a variety of strategies second position speakers can use to indicate that there was some issue with the stance they have been assigned, suitable for responding to different kinds of first position actions, and ranging widely in subtlety (Schegloff, 1996; Heritage 1998; 2002; 2011; 2015; Heritage & Raymond, 2005; Stivers, 2005; Raymond & Heritage, 2006; Stivers et. al 2011; Robinson, 2013; Sidnell, 2014).

Such epistemic calibrations are always at play in conversation (Heritage, 2018; Drew, 2018), and have been shown to influence other aspects of conversational interaction. For instance, Bolden (2013; 2018) notes that epistemic considerations interact-with and sometimes override preference structures in repair sequences. Robinson (2013) and Drew et al. (2013) argue that epistemic considerations are necessary for action ascription. Mikesell et al. (2017) note that the second position epistemic upgrade “I know” accomplishes different social actions depending on the content of first position, ranging from endorsing assessments to resisting advice. And Raymond & Heritage (2006) suggest that “management of rights to knowledge... can be a resource for invoking identity in interaction” (p. 680). It seems clear that the expression of epistemic stance in conversation can have meaningful social consequences for participants.

Speakers appear to orient to a normative expectation that the epistemic stance and epistemic status are consistent, something we will henceforth refer to as *epistemic felicity*. Heritage writes that, “In general, speakers act to preserve...consistency between the epistemic stance they encode in a turn at talk and the epistemic status they occupy relative to the topic... however... interactional exigencies may compel, or simply eventuate in, divergences between epistemic status and epistemic stance” (2013, p. 9). Readers may imagine a range of such “interactional exigencies”. Participants may choose to adopt an epistemic stance lower than their status (speaking as if they know less than they actually do) due to modesty or because their possession of the knowledge is inappropriate in some way (e.g. if they attained it through unsanctioned means, or if there is a social stigma attached to possession of this knowledge either in general or for a particular demographic). Expressing a stance lower than one’s status is also common in adult-to-child speech and in pedagogical contexts. Alternatively,

participants may adopt a stance higher than their status (speaking as if they know more than they actually do) in order to comply with a social expectation to know, or because they are not acutely aware of the boundaries of their own knowledge. There are endless possibilities for interactions between social context and individual and institutional identities that may motivate speakers to adopt a particular stance. Suffice it to say that, despite a normative expectation to the contrary, epistemic stance is not *always* a felicitous expression of epistemic status.

Many epistemic stance-status mismatches likely go unnoticed in conversation, since epistemic status is largely invisible—both to conversational participants and after-the-fact observers. There are occasions, however, when the epistemic stance adopted by a participant in conversation is treated as problematic. The problem often seems to be that the stance does not reflect what participants know (or suspect) about underlying status. The mechanisms by which participants bring up and resolve such trouble bears a striking resemblance to the way that they resolve other sorts of trouble; changes in epistemic stance appear to be a sub-species of the well-documented phenomenon of conversational repair.

The process of repair, classically conceived, starts with a *trouble source* (a problem with hearing, speaking, or understanding), proceeds through a *repair initiation* (where the trouble source is made evident as such) and results in a *repair outcome* (a reformulation or correction of the trouble source) (Schegloff, Jefferson & Sacks, 1977). Often all these steps are accomplished in a single turn at talk—indeed there is a preference for self-initiated self-repair (Schegloff, Jefferson & Sacks, 1977; Schegloff 1987). Other times, these steps happen across several turns at talk, with the repair initiation coming either in the transition space after the first turn, in the third turn after intervening talk, or *in* the intervening talk (Schegloff,

1992, 1997; 2002; Drew 1997; Sidnell 2010; Kitzinger 2013). When the repair initiation comes from participants other than the trouble source speaker, there can be ramifications for the relationship between speakers, as the repair-initiation is vulnerable to being heard as casting blame on the trouble source speaker (Robinson, 2006). Svennevig (2008) argues that other-repair initiators show a preference for formulating “the least serious construal of a problem” as possible (p. 347). The organization of repair sequences themselves can have serious implications for identity and relationships, and when they concern the epistemic status of participants, this is doubly the case.

Although repair has traditionally been conceived of as a tool for resolving problems with hearing, speaking or understanding, the mechanisms of repair have been shown to be used for a variety of other purposes, such as repairing action formulation, self-monitoring, and expressing disagreement or disalignment (Jefferson, 1974; Goodwin, 1983; Drew 1997; Sidnell 2010, Kitzinger, 2013; Bolden, 2018; Drew, 2018). Indeed, “nothing is, in principle, excludable from the class ‘repairable’” (Schegloff et. al. 1977, p. 363). Epistemic stance is one such repairable.

This paper explores the ways in which the mechanisms of repair are used in cases where epistemic stance is treated as problematic by participants. Epistemic stance can always be challenged: “Just as the possibility of repair is ever-present, so too is the possibility that participants’ claimed epistemic statuses may be challenged; indeed the organization of repair... is closely involved in... epistemic contests” (Drew, 2018, p. 182). We examine a collection of exchanges where speakers adopt an epistemic stance and subsequently downgrade to a lower one. This paper first explores downgrades to epistemic stance that are made without a clear challenge (akin to self-initiated self-repair), then examines instances of

downgrades in epistemic status that follow some kind of challenge (akin to other-initiated self-repair), and concludes with discussion of an instance where repair of epistemic stance is the topic of a narrative. We argue that features of these extracts demonstrate a strong orientation by participants to a norm of epistemic felicity.

Materials and Methods

Data extracts are drawn from a corpus of audio and video recordings of unstructured face-to-face interaction between over 60 different adult dyads who reported themselves to be close friends. All participants were native speakers of American English. The videos were recorded in a university room designed to resemble a casual home environment. Participants sat across from one another in two stuffed chairs separated by a coffee table which was set with candy and bottled water for participants to consume during interaction. Each dyad was recorded for 30-40 minutes. All participants gave their informed consent.

First Turn Repair of Epistemic Stance

In some cases, speakers themselves treat the epistemic stance they have adopted as problematic by changing it themselves in a single turn. Drew (2018) offers a small collection of instances where “speakers...adjust or amend their epistemic stance as they are speaking, mid-turn” (p. 174). He notes that these are typically cases where epistemic stance is lowered, often by switching from declarative to interrogative syntax. Extract 1 is an epistemic adjustment of this type.

Before the start of Extract 1, Zack and Tom have been discussing Tom’s family. In the beginning of the clip, Zack is inquiring about Tom’s family using declarative utterances that

function as questions (Heritage, 2012). In lines 17-18, however, Zack begins with a declarative and switches to an interrogative mid-turn.

Extract 1: Grandparents

01 ZAC: So yer dad'z really (.) like cool and chill >I feel like he's<
02 just like super laid back
03 (1.5)
04 ZAC: ['eez not like yer mom]
05 TOM: [>duh thing about my dad is<]
06 (0.5)
07 ZAC: He's not like crazy like your mom
08 TOM: No (.) 'ez super laid back but (0.7) 'ee just is like really
09 lazy
10 (1.2)
11 ZAC: >'ats just cuz ee's always been, right? His whole life?<
12 TOM: Wull it's actually not really (0.3) he sort of (0.4) has
13 learning (.) disabilities
14 ZAC: Oh:
15 TOM: bad-really bad speller. Really bad-
16 ZAC: >jus< basic
17 TOM: like reading
18 -> ZAC: An' your grandparents probably didn't- had- have they
19 like given him everything too?
20 TOM: 'an they've gi[ven- they gave] him too much=
21 ZAC: [his whole life?]
22 TOM: =like they always- wul >this is the thing< they
23 always made 'im have a job

Both prior to and within this extract, Zack demonstrates that he has quite a bit of knowledge about Tom's family. Although Zack is still in K- position (Tom is certainly K+ with regard to his own family) he indexes a rather shallow epistemic gradient by repeated use of declaratively formatted questions in lines 1-2, 4, and 7. In line 11, Zack adopts a slightly lower epistemic stance, by including a tag question ("right?") at the end of a declarative (Heritage & Raymond 2005). This is the first statement about Tom's family's past; in line 11, Zack makes claims about how Tom's father has "always been" in contrast to the present tense markers in lines 1-2, 4, and 7. In lines 18-19, Zack adjusts his stance mid-turn, abandoning a declarative and restarting his question with an interrogative, moving from a relatively high K- position to a relatively low one. This statement is again about Tom's family's history,

something about which Zack has comparatively less access. It also concerns extended family members (grandparents) who Zack is less likely to be familiar with than Tom's parents. Zack's epistemic self-repair may be responding to an epistemic stance-status mismatch.

Switching from declarative to interrogative syntax is not the only kind of epistemic self-repair possible or observed. In this next extract, a speaker switches from one type of question to another. After hearing a report of Rex's roommate drama, Oliver abandons one type of question in favor of another in line 3.

Extract 2: Roommate Drama

01 REX: yo we're having some roommate drama at the house
02 (0.7)
03 -> OLI: Is- (0.5) uh who - so who lives at the house right now?
04 REX: Um: myself (0.3) Gary
05 OLI: Yeah
06 (0.5)
07 REX: Anne (0.6) an'den a girl named Stephanie

After Rex's report in line 1, Oliver begins a question in line 3 ("Is-") that likely would have contained a candidate cause of the drama. Candidate answers are a way for speakers to "display having knowledge and familiarity of a circumstance" (Pomerantz, 1988, p. 360). After abandoning an apparent beginning to a candidate explanation, Oliver stops, pauses, and asks a wh- question, which indexes less epistemic authority (Heritage & Raymond, 2005). He is no longer proposing to know who or what is causing the drama—merely asking about the cast of characters. Based on the person reference (Sacks & Schegloff, 1979) Rex uses in lines 4 and 7, it seems Oliver is familiar with at least two of Rex's roommates, so he may well have been equipped with an informed guess about the individual causing the drama. However, he is not familiar with *all* of the roommates, apparently hearing about Stephanie for the first time in line 7. While Rex maintains K+ status throughout (having clear epistemic authority over the

goings-on in his own household), Oliver switches from a relatively high K- position to a lower K- position by reformulating his question. Again, this self-repair may be responding to a stance-status mismatch, as Oliver realizes he is no longer acquainted with all of Rex's roommates.

Another technique for modifying epistemic stance is the inclusion of epistemic modals. In Extract 3, a speaker begins with an unmarked declarative and then restarts to include a downgrading modal ("I think"). Here, Rex and Oliver have been discussing their former coach and his current activities. Rex self-repairs in line 3 while answering Oliver's question.

Extract 3: Wellness Center

01 OLI: speakin'uh'wich (0.4) what's Coach Saunders - have you heard
02 from him at all?
03 -> REX: Um: (3.5) yeah. He's running like s- I think he's running like
04 a (1.0) um: (2.4) a like massage therapist like (.) communion
05 thing. I can't think of the right word but'uh- (.7)
06 OLI: yeah it sounds like=
07 REX: =like an organization or (0.7) like an office with multiple
08 (0.4)
09 OLI: mmhmm like a wellness=
10 REX: =yeah wellness center type thing

In lines 1-2, Oliver asks Rex about Coach Saunders' current activities¹. In line 3, after answering Oliver's second question ("yeah"), Rex begins to answer Oliver's first (incomplete) question with a declarative utterance, accepting the K+ position that has been assigned to him. Before completing the statement, however, Rex restarts with the addition of the downgrading modal "think", indexing a lower (while still K+) stance about Coach

¹ The reformulation here is also of epistemic significance. By asking "what is coach Saunders..." (and presumably cutting off completion of something like "doing now"), Oliver assumes that Rex knows the answer, granting him K+ status. By restarting with what might have been a pre-question ("Have you heard from him at all?"), Oliver removes an assumption of Rex's knowledge. This repair seems to be done to avoid addressing someone with a stance higher than their status.

Saunders' activities. Based on Rex's difficulty in formulating the activity in lines 3-5, 7 and 10, he is not incredibly clear on the details. Even with the completion of the sequence in line 10, he's only settled on a "type thing" that the coach is currently doing. This indicates that, similar to the other extracts, the self-repair may be orienting to an epistemic stance-status mismatch. Here, however, rather than lowering an already K- stance (as in Extracts 1 and 2), the speaker lowers a K+ utterance while still maintaining K+ position.

In each of these cases, the speaker lower their epistemic stance without any prompting from their co-participant. Although their epistemic stance is not challenged, they nonetheless initiate repair and adjust their stance. In Extracts 1 and 2, it seems the repair is at least partially sensitive to the relative epistemic status of the participants, (Tom knows more about his family and Rex knows more about his roommates), and/or to the boundaries of their co-participants' epistemic territory (Tom and Rex also have superior rights to knowledge about these domains). In Extract 3, however, Rex's unprompted inclusion of "think" in his reformulation is apparently responsive only to reflections of his own knowledge; Oliver has neither superior knowledge nor rights to knowledge about Coach Saunders. Rex apparently downgrades based on concerns about accurately representing his own knowledge rather than to concerns about the slope of the epistemic gradient between him and his co-participant. This case in particular points a normative expectation of epistemic felicity.

Third Turn Repair of Epistemic Stance

In some cases, speakers adopt an epistemic stance in one turn and then change it in a later turn. The intervening talk between the disparate stances is, in some ways, akin to a repair initiation. Intervening talk may take the form of a direct challenge to epistemic authority or

may appear as innocuous information-seeking questions. In this way, epistemic repairs of this variety exist somewhere in between so-called “third turn” repair (Schegloff, 1997), where the intervening talk by a co-participant does not contain a repair initiation, and “third-position” repair, where the intervening talk contains an obvious repair initiation (Schegloff, 1992; 2002, Drew, 1997; Kitzinger, 2013). Whatever the classification of the intervening talk, the first-turn speaker changes their stance in the third turn in a maneuver analogous to a repair outcome. Whether this repair is other- or self- initiated is unclear, and that opacity may be precisely the point. Since both epistemic contests and repair initiations have implications for identity and face (Raymond & Heritage, 2006; Robinson 2006; Stivers et al. 2011), an off-record challenge to epistemic stance may help mitigate the potential negative social consequences for both the challenger and the challenged.

Another difference between these stance-changing sequences and classical accounts of repair is that the third turn (containing the repair outcome) often contains markers of dispreference such as delays, repeats, restarts, and accounts (Pomerantz, 1984a, Pillet-Shore, 2017; Sidnell 2010). This particular type of repairable can be of more significant social consequence to participants than classic issues with hearing, speaking, or understanding. The epistemic stance-status mismatch is a violation of an expected norm—almost a type of deceit—as participants are misrepresenting their knowledge. Third turn repair of epistemic stance must somehow justify or account for the deceit in addition to repairing the trouble source.

The following extracts provide examples of how the second-turn in sequences of epistemic “repair initiation” can vary from an overt challenge to an information-seeking question as well as demonstrating some of the extra work done in the third-turn repair

outcome to account for the epistemic stance-status mismatch. In each case, the two different stances (the “trouble source” and the “repair outcome”) are bolded, and the second turn “repair initiations” are marked with arrows.

In the extract below, the repair initiation is a thinly veiled challenge to the speaker’s epistemic status. Miles and Xander have oriented to the cameras filming them, and Xander is telling a story about how he is used to being filmed at his job, but without audio recording. Miles interrupts this story with a question that Xander treats as an epistemic repair-initiation.

Extract 4: Security Cameras

01 XAN: It’s funny cuz I’m used to being filmed like at work but they
02 can’t hear what I’m saying (.3) **at work there’s like no audio**
so
03 I’m always like (.3) I can say fuck you (garden bar)’n you can
04 suck my dick but choo don’t even know
05 (.5)
06 XAN: like=
07 MIL: =O:h
08 XAN: Yeah cuz there's one camera in there and like I know where it
is
09 (0.3) and like **they can't hear what we're saying ever** so it's
10 like we talk about like (0.3) [how should we take]
11 -> MIL: [how do you know?]
12 (0.6)
13 -> MIL: that there's no sound?
14 (1.1) (XAN purses lips & lowers eyebrows)
15 XAN: °**I don't know actually**°
16 MIL: (([LAUGH]))
17 XAN: [but ((laugh))]
18 (0.4)
19 XAN: Yeah I don't [know]
20 MIL: [That'd be] weird and creepy
21 XAN: >I don't think they're allowed - I mean they probably are
22 allowed to but like no camera - security cameras ever have
23 sound [like]<
24 MIL: [ye:ah] (shakes head)

The trouble source in Extract 4 is Xander’s claim in 9 (and its antecedent in line 2) that his employers cannot hear what the employees are saying, although this is not identifiable as a trouble source until subsequent turns at talk. In line 11, in overlapping talk, Miles inquires about the source of Xander’s knowledge, not explicitly challenging *that* Xander

knows, but just requesting evidence. In line 12, there is a short pause and no response from Xander. Miles continues with a post-gap increment (Ford et al. 2002) in line 13, clarifying his question. In line 14, there is a significant delay, and Xander, while making a puzzled expression, changes his epistemic stance, quietly saying that doesn't "actually" know.

Xander's epistemic stance shift in line 15 has several markers of dispreference. Clift (2001) argues that, in contexts where a question has made informing relevant, "TCU-final *actually* marks a no answer that runs counter to the response projected in the prior turn" (p. 255). In this sense, *actually* works as a marker of a dispreferred answer. This turn is additionally marked as dispreferred by the delay and the comparatively low volume of it (Pomerantz, 1984a, Pillet-Shore, 2017; Sidnell 2010). Clift additionally argues that TCU-final *actually* often displays "informational correction work addressed to a fact either stated or presupposed in a prior turn" (2001, p. 260). Miles' question "How do you know... that there is no sound?" itself presupposes that Miles *does*, in fact know. And this supposition has its roots in Xander's claims in lines 2 and 9 that there is no sound recording. So, here, *actually* appears to be responding, as Clift suggests, to the presupposition in Miles' question, but it is also operating to correct his assertion in his previous turn.

Miles laughs in line 16 and Xander offers a "but" before laughing along. Xander's abandoned start appears to be launching up a defense of some sort; perhaps he doesn't *know* but he still maintains some epistemic authority about his employers' camera status. After another pause, Xander repeats in line 19 that he doesn't know. In line 20, Miles offers an assessment of the employers' hypothetical listening behavior (that it would be "weird and creepy"), which offers Xander a chance to transition to a new topic (Sacks, 1995). Yet, instead of responding to Miles' assessment, Xander provides additional evidence for his belief

that his employers cannot access audio recordings in lines 21-23, first citing his beliefs (hedging with the modal “think”) about recording rules, then reversing and abandoning this in favor of purported knowledge about security camera audio capabilities in general. In line 24, in overlapping talk, Miles concludes the exchange with a summative “yeah”.

In this case, the second-turn repair initiation is a thinly veiled challenge to the stance claimed in the first turn (“How do you know?”). The repair outcome unfolds over multiple turns-at-talk, and has many hallmarks of dispreferred responses, including laughter, delays, repeats and re-starts. Although there is a turn-initial downgrade of epistemic stance (“I don’t know actually”), it is followed by an elaborate attempt to maintain some foothold on the initial claim by exploring alternate sources of evidence.

In the following extract, the second-turn “repair initiation” is not clearly orienting to a stance-status mismatch, nor is it clearly a challenge, but it nevertheless results in downgraded epistemic stance in the following turn. Here, Eli has attempted to make a joke that simply did not go over well with Antonio. Before the start of this extract, Eli has already spent quite a bit of time trying to explain his joke and Antonio has repeatedly complained that it was not funny, a sentiment which he renews in line 1. Eli gives a directive to Antonio, who says he is already engaging in the prescribed course of action. When Eli inquires further, Antonio offers a complete reversal of his earlier claim, saying he has not in fact, done as Eli recommends.

Extract 5: Imgur

01 ANT: Yeah I don’t I don’t get it (.5) (hh)that wasn’t funny (hhh)
02 (1.2) (ANT puts water bottle to mouth)
03 ELI: You you need to spend more time on Imgur
04 (.4)
05 ANT: mmph (wipes upper lip)
06 (.6)
07 ANT: **I spend plenty of time on Imgur** (re-caps bottle, gazes down)
08 -> ELI: ↑Really?↑
09 ANT: **No I don’t know why I said that** (shaking head)

10 ELI: ((*laughs*))
11 ANT: I think I was just trying to come up with a (hhh)retort
12 ELI: ((*laughs*))

In line 3, Eli gives a directive to spend more time on Imgur (a website for trending memes), the implication being that, if he did, Antonio would have gotten the joke. This places the burden on the bad joke on Antonio, which he resists. In line 7, Antonio claims that he spends “plenty of time” on the website, defending his entitlement to assess the joke as unfunny by asserting he has the requisite meme-knowledge to judge. In line 8, Eli asks “Really?” in a notably high pitch, seeming surprised. Antonio treats this as a repair initiation, although it might alternatively have been understood as a news receipt token, ritualized disbelief, or a request for elaboration (Heritage, 1984, Wilkinson & Kitzinger, 2006). Antonio, apparently unprepared to elaborate, immediately answers with “No” in line 9 and reports ignorance of his own motivation for making the earlier statement. He “doesn’t know” why has said something. Antonio goes so far as to speculate about his own motives in line 11, merely “thinking” of a reason for his earlier statement. By divorcing himself from his previous utterance, Antonio reduces his responsibility for assuming an infelicitous high stance earlier.

Antonio downgrades his earlier stance after a question that he seems to interpret as a challenge. This downgrade is not marked as dispreferred by delays or restarts, although it does contain laughter, perhaps as a face-saving maneuver (Warner-Garcia, 2014). The problematic nature of the repair is further evidenced by the the self-distancing language Antonio uses, which suggests he is trying to avoid the potential blame of assuming an epistemic stance higher than his status.

In this next extract, the repair initiation appears to be a straightforward information-seeking question, not a challenge. Nevertheless, it elicits a repair of epistemic stance in the subsequent turn. Before the start of this extract, Ike has been telling Jason that he is no longer certain about his ambitions to become a police officer because it is difficult to be a good one and because he wants to do more than give out traffic tickets.

Extract 6: Sheriffs

01 JAS: But still you can't be cop that doesn't give out tickets (like)
 02 (1.2)
 03 if you're not doing anything
 04 IKE: well you can be a cop that doesn't give out very many tickets
 05 if it's like clear that you're doing other things
 06 (.7)
 07 JAS: yeah sure
 08 (2.4)
 09 JAS: I mean that's only if you're a traf - if you're a traffic cop
 10 then you're giving out tick[ets]
 11 IKE: [yeah]
 12 JAS: (let sho know) what kinda cop you are
 13 (1.0)
 14 IKE: like a sheriff=
 15 IKE: =>I don't really understand the differen[ce<]
 16 JAS: [°(like] a shhh°
 17 (.7)
 18 IKE: Is there really a difference between sheriff and police?
 19 (.2)
 20 JAS: **Ye-yeah (.3) °There is actually° ((looks down))**
 21 (1.6)
 22 -> IKE: What is it?
 23 (2.7)
 24 IKE: sheriffs have those hats?
 25 JAS: **nah, I know, ok. I don't know exactly,** but I know like sheriff
 26 is like a higher (.4) like position if you're THE sheriff
 27 you're like the (.7) there's not like a bunch of sheriffs or
 28 something (.8) it's like
 29 (1.0)
 30 IKE: five or ten ((smiles))
 31 JAS: °it's like°
 32 (0.8)
 33 IKE: You don't really see that very much you see a lotta police cars
 34 (.) but sheriff cars are super nice

In lines 1-13, Jason and Ike discuss the required number of traffic tickets being related to different types of police. In line 14, Ike proposes a sheriff as a type of cop that does not have to give out tickets, then re-starts in line 15 and observes that he doesn't know the

difference between sheriffs and other types of police, which functions as an indirect request to be told the difference. Jason makes a barely audible scoff in line 16 but ignores the indirect request. After a pause, Ike transforms his request into a polar interrogative in line 18, which Jason answers in in line 20 at low volume while avoiding eye contact, a mark of attempted sequence closure (Rossano, 2012). Although he technically answered the polar question (yes, there is a difference), Jason has still not answered Ike's indirect request: what *is* the difference? After a lengthy pause in line 21, Ike pursues a response (Pomerantz, 1984b) in line 22 ("What is it?"), which ultimately functions like a repair initiation. After a very long pause in line 23, Ike offers a joking candidate answer (Pomerantz, 1988) in line 24.

In lines 25-28, Jason downgrades his epistemic stance, admitting that he does not "know exactly" but tries to maintain his K+ status (" but I know..."). He presents his repair as a clarification rather than an admission of a prior misrepresentation. He may not know *exactly* but he still *knows*. There are multiple delays prior-to and within this turn as well as multiple re-starts as Jason offers multiple partial explanations of the defining features of sherriffhood. In lines 25-26 he suggests that sheriffs have a higher rank than others. In lines 26-28, he offers up the idea that there are perhaps fewer sheriffs than other types of officers, trailing off and pausing in line 29. In line 30, Ike jumps in with a candidate answer and suggests some possible numbers to quantify sheriffs. In line 31, Jason quietly re-initiates an attempting to explain the difference, but trails off again into a pause in line 32. In line 33 Ike initiates a slightly new topic and perhaps another candidate answer to his initial question: the niceness of sheriff cars.

In this case, the "trouble source" is again a mismatch between epistemic stance and status; Jason answers a question, accepting the K+ status ascribed to him in its asking, but he

does not know enough to handle follow up questions. The (seemingly earnest) follow-up questions from Ike function as epistemic repair initiators that prompt Jason to admit (perhaps even to himself) that his knowledge is not as rich as he had previously represented it to be. In his repair outcome, there are many markers of dispreference (delays, re-starts, and gaze avoidance) as well as apparent reluctance to downgrade his status. Jason's strategy is to present the repair as a clarification—he did not misrepresent his knowledge before; he simply did not go into enough detail about its boundaries.

Extracts 4-6 illustrate instances where a first turn epistemic stance is downgraded in the third turn. The new stance (a sort of “repair outcome”) in the third turn is often marked in various ways as dispreferred action. Participants' reluctance to make this sort of downgrade points to the expected norm epistemic felicity; one ought not act as if one knows more than one does (Stivers et al., 2011; Heritage, 2013). Yet there is a competing social pressure to know as much as possible (at least about matters relevant to one's cultural community) to maintain face (Brown & Levinson, 1987). There are expectations—even obligations—for people to have certain knowledge and strong pressure to adopt an epistemic stance consistent with knowing, sometimes incentivizing a mismatch with an unknowing status. Sometimes these crosscutting pressures result in participants having to admit to an earlier exaggeration of their epistemic stance. And when participants find themselves in this situation, the mechanisms of repair allow them to minimize the negative repercussions of violating the expected norm of epistemic felicity. In some sense, misrepresentation of epistemic stance is effectively a lie, and the backflips that participants do during their repair in extracts 4-6 suggest that they are orienting to it as such.

Narratives About Repair of Epistemic Stance

The significance of this kind of epistemic downgrade for participants makes itself particularly evident when these events become the subjects of stories. The extract below outlines an epistemic downgrade following a challenge, similar to the extracts shown above. However, in this case, the entire exchange is embedded in an after-the-fact account.

Here, friends Nancy and Enzo are discussing their children's interests and Nancy mentions that her daughter is interested in outer space. In response to a question from Enzo about where her daughter acquired the interest, Nancy tells a story about an occasion where she downgraded her epistemic stance about the solar system while talking with daughter and her husband Dustin.

Extract 7: The Solar System

01 NAN: She really likes outer space stars'n'pla[nets 'n all] that so
02 ENZ: [Oh yeah?]
03 ENZ: she get- she get that from Dustin?
04 (0.6)
05 NAN: she dudn't get it from me
06 ENZ: ((*laughs*))
07 NAN: I think at one point **I told her that (1.2) the Earth or-orbits**
08 **around the sun** or some- like (.6) something just way messed up
09 an' I wuz like-
10 ENZ: ((*laugh*)) yeah
11 NAN: >Wuz'like< yeah um **Mars is closer (.) to the sun(.)**
12 -> **than Earth(.)** 'n - Dustin >wuzjustlike< what are you
13 talkin' about? 'n I >wuzlike< **I dunno.**
14 ENZ: yeah
15 (1.0)
16 NAN: We were up at the coast all lookin'at the stars 'n ((*clicks*
17 *tongue*)) (1.5) did not get a good grade in that class
18 ENZ: Astrology. Yeah. I took Astrology.

In this extract, Nancy lays out the trouble source, a mismatch between her generally K- status about the solar system and the K+ stance she took in particular utterances directed to her daughter. In line 5, Nancy states that her daughter's astronomical interests could not have come from her, signaling a general lack of knowledge about the topic. In lines 7-9 she

recounts an erroneous K+ utterance—an occasion where she “told” (telling being a canonically K+ activity) her daughter something “way messed up”. Readers may notice that this particular planetary tidbit is factual. Perhaps Nancy did as well, as she offers an additional example of an incorrect K+ utterance in lines 11-12 after an intervening laugh from Enzo.

In lines 12-13, Nancy recounts her husband’s epistemic challenge, functioning as a repair initiation (the disbelieving “what are you talking about?”). In line 13 she reports her stance downgrade (an emphatic “I dunno”). She did not, in fact, know what she was talking about, which is indeed the theme of the anecdote. In line 17, Nancy offers an explanation for her lack of knowledge – that she did not do well in school when this material was taught.

The fact that repairs of epistemic stance are *tellable* events for speakers indicates that they are significant events in their conversations and memorable events in their lives. There are important connections between knowledge and social identity, and an expectation of epistemic felicity is a moral as well as a practical consideration.

Discussion

Epistemic considerations interlace with repair sequences in a number of ways, many of which have already been explored (Lerner & Kitzinger, 2007; Mikesell et al. 2017; Bolden, 2018; Drew 2018; Raymond & Sidnell, 2019). This paper echoes the perspective that epistemic stance should be considered as a potential class of repairable. The mechanisms of how conversational participants change their epistemic stance within and across turns at talk have many structural similarities with repair sequences as classically conceived, especially in cases of self-initiated self-repair that occurs within a single turn.

This paper also offers an examination of cases where epistemic stance is changed in the third turn at talk, something that has received comparatively little attention in literature thus far. These sequences deviate a bit further from the classical typology of repair. They exist somewhere between “third-turn” repair sequences and “third position” repair sequences due to the ambiguous nature of intervening talk in second position. The utterances of speakers in this position (things like “really?” and “how do you know?”) leave it unclear who exactly initiated the repair, or indeed if a repair was initiated at all. This ambiguity may help both participants to save face (Brown & Levinson, 1987) because the challenger is not accountable for having accused the trouble source speaker of violating the norm of epistemic felicity (a sort of lying), and the trouble source speaker is not obliged to respond by performing repair.

In the extracts we show, the trouble source speakers respond to ambiguous intervening talk with repair, downgrading the epistemic stance they adopted in their previous turns at talk. The third turns of these sequences allow us to make comparisons with similarly structured repair sequences that make adjustments to features other than epistemic stance. Looking only at the first two turns in these extracts, there is often nothing present that resembles classical repair. For instance, in Extract 5, the notoriously polysemous “really?” occupied second position and was responded to as if it were a repair initiation. If it had been interpreted instead as ritualized disbelief (Wilkinson & Kitzinger 2006) this extract would bear almost no resemblance to repair. This paper demonstrates, that, at least in some cases, such ambiguous turns are heard by participants as prompts for them to adjust the epistemic status that they previously adopted, presumably to ensure that it more accurately reflects their epistemic status.

We have presented a series of cases in which participants adopt an epistemic stance higher than their epistemic status and choose to downgrade it. These choices seem to reflect both a concern for the relative knowledge states between participants and a concern for accurately representing one's own knowledge (as in Extract 3). These sequences illustrate that speakers orient to a norm of epistemic felicity. Both with and without prompting, they make adjustments to epistemic stance seemingly to ensure that their use of epistemic resources are felicitous representations of their epistemic status.

Knowledge possession and transfer are key components of maintaining individual and social identities. The normative expectation of epistemic felicity is essentially a check on people being who they say they are by requiring that they act like they know what they know. Being caught adopting an infelicitous stance (especially one higher than one's status) is treated as problematic when it becomes apparent. Unsolicited epistemic downgrades may be anticipating and preempting this sort of dilemma and solicited ones may be responding to it. To counterbalance this consideration is the fact that improper challenges *themselves* have the potential to be problematic. Like the looming threat of consulting the Scrabble Dictionary, the omnipresent possibility of an epistemic challenge is an essential component of maintaining the norm of epistemic felicity in everyday conversation.

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CHAPTER 3

“Who do you think you are?”: Narratives about epistemic trespassing

Abstract

This paper identifies a previously undescribed genre of narrative that is aimed at eliciting a specific type of alignment and support from recipients. We present a collection of narratives exchanged between friends about instances where an absent third party trespasses into the epistemic territory of the speaker by disregarding the speaker’s knowledge and expertise in a domain tied to their identity. In these narratives, speakers vilify the absent third party, make extensive use of direct reported speech, explain why they are the true authority on the subject in question, and often speak directly to the absent party, sanctioning their behavior. We argue that such narratives act to recruit recipient assistance in an after-the-fact sanctioning of the trespassing third party and validation of the speaker’s knowledge and related identity. These narratives both orient to and reinforce a social norm of respecting others’ expertise in interaction.

Introduction

The concept of personal space is a handy metaphor for the more abstract notion of epistemic territory: just as people have rights to the space surrounding their body, they have rights to knowledge surrounding their experience. There are normative expectations that participants in interaction will respect these rights: we are not supposed to step on other people’s toes, either literally or metaphorically. Yet, calibrating the boundaries of personal space and epistemic territory is difficult since both are dynamic. Expectations around personal space vary by culture, context, and relationship (Hall, 1968; Sommer, 1959; Kendon, 1990).

Norms of knowledge expression and negotiation in conversation are likewise variable, but just as crucial to track (Stivers, Mondada, & Steensig, 2011; Heritage, 2011; Sidnell, 2014). By and large, participants in interaction are remarkably successful at avoiding intruding into one another's personal space as well as refraining from speaking authoritatively about one another's areas of expertise.

A great amount of work underlies this achievement. In order for conversation to occur at all, participants must make assumptions about the knowledge states of their coparticipant(s) (Garfinkel, 1967; Bell, 1984; Clark & Carlson, 1982; Sacks, 1995; Levinson 2006). This includes assuming that the interactants know a great deal in common; interaction starts from a place of *common ground* (Clark & Marshall, 1981; Clark & Brennan, 1991; Clark, 1996). But crucially, participants do not share *all* knowledge in common; conversation requires information imbalances and involves information transfer (Heritage 2012b). In cases of knowledge asymmetry, participants use and attend to a variety of cues to track which party is more knowledgeable (K+) and less knowledgeable (K-) about each topic that arises. Some cues are encoded in language with syntactic structure, lexical items, or grammatical markings (Chafe, 1986; Infantidou, 2001; Mushin, 2001; Aikhenvald, 2004), while others are extralinguistic, like prosodic contours, turn format, and sequence organization (Schegloff, 2007; Heritage, 2008; Hanks 2014). Conversational interaction affords a multitude of strategies for language users to both express and negotiate their relative epistemic authority (Heritage 2012a; Sidnell 2014; Heritage & Raymond, 2005; Stivers 2005; Stivers & Rossano, 2010; Heritage 2013; Raymond & Heritage, 2006).

The choices speakers make about which epistemic markings to include in their utterances not only reflect which party has more access to information, but also a complex

slew of social considerations like the relationship between speaker and hearer, the context of the interaction, and the participants' relative entitlement to relevant domains of knowledge (Kamio, 1997; Fox, 2001; Raymond & Heritage, 2006; Stivers et al. 2011; Heritage, 2012a; Sidnell, 2014). Tracking relative knowledge during conversation is not only about issues of understanding; knowledge is closely connected to both individual and social identities.

Invocations of knowledge in interaction are a crucial tool for constructing and maintaining these identities (Sacks, 1979; Antaki, Condor, & Levine, 1996; Wooffitt & Clark, 1998; Raymond & Heritage, 2006).

Of course, not all domains of knowledge are equally germane to identity. While knowledge of the date or weather forecast is unlikely to be intimately tied to anyone's sense of self, knowledge about one's profession, family, and emotions most certainly is. People generally expect to be treated as experts about certain domains, such as their "thoughts, experiences, hopes and expectations" as well as their "relatives, friends, pets, jobs, and hobbies" (Heritage, 2012a:8). A more abstract list of knowledge domains that generally belong within an individual's epistemic territory includes "internal direct experience... external direct experience... professional or other expertise... [and] information about persons, objects, events and facts close to the speaker" (Kamio, 1997:8). These domains are precisely those most likely to be entwined with our identities (Bristol & Rossano, 2020). When interacting with others, we expect to be regarded as authorities about knowledge domains that relate to who we are.

While conversational participants are generally adept at skirting the boundaries of one another's epistemic territory, sometimes speakers trespass by adopting an inappropriately authoritative stance about a domain within their addressee's expertise. Such epistemic

trespassing is a sanctionable violation of conversational norms, especially when it involves domains of knowledge relevant to identity. Certain identity groups are more likely to have their expertise underestimated in interaction. The term ‘mansplaining’ has worked its way into the zeitgeist to describe a systematic pattern of epistemic trespassing encountered by women (Solnit, 2008; 2014), and on its heels came sister terms like ‘whitesplaining’ and ‘straightsplaining’ to describe the sciolism frequently encountered by other marginalized groups. Small instances of epistemic trespassing within conversations can accumulate and form societal structures of epistemic injustice (Fricker, 2007). Being talked down to about topics about which one has superior rights is insulting because it is identity-threatening.

Our identities are constructed largely through social interaction, and they are continually being invoked and adjusted as we move through the social and physical worlds around us. Identities can be seen as dynamic entities rather than fixed traits, and much of the dynamism surrounding them exists within the context of conversational interaction (Antaki et al., 1996; Antaki & Widdicombe, 1998; Raymond & Heritage, 2006). A powerful vehicle for expressing identity within interaction is storytelling; narratives are not only reflections of our selves, they are tools for constructing the self (Langellier, 1989; Kerby, 1991; Ochs & Capps, 1996). Crucially, stories are told to an audience. The recipients of personal narratives in conversation play an important role in constructing stories, but also in validating the identities expressed within them (Goodwin, 1979; 1982; Ochs & Capps, 1996). Identity work requires both telling and hearing: “identities emerge from the combination of the stories [and the] audience’s ratification of them” (Antaki et al., 1996:81). The endorsement of an attentive and like-minded recipient is crucial in order for narratives to reinforce identity.

After participants in interaction have their identities threatened by epistemic trespassing, sharing a narrative of the incident with a sympathetic party offers them a chance to repair the damage. This paper presents a collection of narratives exchanged between friends in ordinary conversation about events where an absent third party trespasses into the epistemic territory of one of the speakers. These narratives constitute a specific genre that is recognized by conversational participants; they share several structural, stylistic, and thematic similarities. They act to accomplish a particular social action, eliciting a unique type of alignment and support from recipients. We argue that these narratives work to recruit listener assistance in an after-the-fact sanctioning of the trespassing third party, and that this collaborative social sanctioning serves to validate and reify the speaker's identity.

Methods

We extracted from everyday conversation a collection of sixteen exchanges in which one speaker complains about an absent third party challenging that speaker's knowledge. The collection was drawn from a corpus of audio and video recordings of unstructured interaction between sixty different adult dyads who reported themselves to be close friends. The interactions took place in a university room designed to resemble a casual living environment. Participants faced each other while sitting in stuffed armchairs on either side of a coffee table and had access to candy and water to consume throughout the interaction. Each dyad was filmed for 30-40 minutes. All participants were native English speakers, and all gave their informed consent. Transcriptions and annotations of the selected exchanges were made using ELAN software (ELAN, 2020).

Structural and Stylistic Features of the Narratives

The narratives have a number of similar features, many of which are present in this first illustrative extract. Here, Jamal and Sarah have been discussing the category of friends who date annoying partners. Jamal brings up a friend's boyfriend he dislikes and shares a story that justifies why: this third party adopted and persisted with a K+ authoritative stance when discussing Jamal's dog Artemis.

Extract 1: Chewer

01 JAM: so anyway so like he's an example of someone we avoided and
02 whenever we did have situations like I just was like couldn't
03 find myself to like (0.3) if I listen to him (0.3) or had a
04 conversation with him like for example like (0.3) when I first
05 got Artemis like [she was chewing on a chew toy]
06 SAR: [°((gasp)) Artemis°]
07 JAM: and >he-was-like< ((sneering face & voice)) she's gonna be a
08 chewer. she's gonna chew up all your stuff-chew up your door-
09 chew up [this-chew up that]
10 SAR: [((raised eyebrows))]
11 JAM: and I was like nyeah yuhknow I don't think so-she's just chewing
12 on her toy she's really good about chewing on her toys like the
13 one time she even thought about chewing a cord like I
14 [spanked her really really hard an=
15 SAR: [yeahaha ((laughs))]
16 JAM: =an ((index finger raised))she remembered an >he-was-like<
17 ((sneering face/voice, hands on hips, side-to-side head moves))
18 'no she's a chewer-she's gonna be a chewer (0.6)((pouty lips &
19 small head shake))I donno why you're even fighting me shezgonna
20 be a chew[er' ((normal voice)) and >I-was-like<]
21 SAR: [((open mouth & raised eyebrows))]
22 JAM: wuh-number one we're not fighting=
23 SAR: ((laughs & [laughs))]
24 JAM: =[and number two] this is ↑my dog and I think I have
25 the ability to discipline and train a dog but uh I didn't know
26 that you were Cesar Millan's appren[tice, A-wipe], like-
27 SAR: [((gasp, smile))]
28 JAM: ((rolls eyes & sighs))
29 SAR: who is Ce- he's like [Ces - Mi]
30 JAM: [dog whisperer]

This extract, like most of the narratives in our collection, makes frequent use of direct reported speech. In lines 7-9, 11-14, 16-20, 22, and 24-26, Jamal reports the word-by-word details of a conversation he had with the trespassing third party. Direct reported speech like

this functions to give the recipient of the story greater access to the events being described and grants them a greater entitlement to give strong affective reactions (Holt, 2000; 2017; Heritage, 2011). Jamal enhances this effect by *depicting* the attitude and tone of this third party while quoting him (Clark, 2016). When quoting, Jamal changes vocal quality, facial expression, and body position, in effect performing a re-enactment of the irritating prognostications the absent third party made about Artemis (Klewitz & Couper-Kuhlen, 1999; Sidnell, 2006; Thompson & Suzuki, 2014). This depiction successfully engages Sarah, who displays a negative view of the trespassing party's behavior with facial expressions in lines 10 and 21 and endorsements of Jamal's responsive sass with laughter in 15 and 23. Indeed, she displays appreciation Jamal's dog whisperer joke in line 27 before she is even aware who Cesar Millan *is*.

Sarah's emotional involvement in Jamal's story suggests one function of such anecdotes; narratives in our collection seem to be designed to recruit strong listener reactions that align with the speaker's perspective. Narratives can be used to build affiliation and create empathy between parties. Indeed, there are "decisive advantages of narrative in general, and of direct reported speech in particular, as a resource for eliciting empathic alignment" (Heritage, 2011:177). Narratives in our collection (about third parties behaving badly) are empathic moments – the recipients are invited to share the storyteller's annoyance or anger. Such narratives "both take a stance toward what is being reported and make the taking of a [complementary] stance by the recipient relevant" (Stivers 2008:32). Jamal and the other narrators in our collection make it abundantly clear which stance their listeners are meant to take.

Another near universal feature of our collection is vilification of the trespassing third party. Like Jamal, most speakers *depict* the words of trespassing third parties, and, like Jamal, most do so in a decidedly uncomplimentary way. Jamal is sneering when reporting speech in lines 6-9 and even more intensely in lines 17-20, lowering his eyebrows and puffing out his upper lip. Mocking depictions of the third parties signal—in no uncertain terms—that these characters are the villains of the tales. Jamal also insults the third party (“A-wipe”) and rolls his eyes at the conclusion of his account, further denigrating the trespasser. Insults and embodied displays of negative affect (like eyerolls, glaring, and scolding hand gestures) are also present in many other narratives in our collection.

In addition to depicting the trespassing third parties in a generally negative way, most narratives also include explicit explanations of why the third parties lack the epistemic qualifications to say what they did. Jamal provides several sources of evidence that establish his superior authority over the domain in question: precedent about the dog’s behavior (“she’s really good about chewing on her toys”), a story demonstrating that he is training her effectively (“the one time she even thought about chewing on a cord I spanked her really really hard... and she remembered”), ownership claims (“this is my dog”), and report of qualifications (“I have the ability to discipline and train a dog”). These authority upgrades are coupled with a sarcastic downgrade of the other party’s authority; Jamal jests that he didn’t *realize* the other party had so much epistemic authority about dogs (as the apprentice to a celebrity dog trainer). Our collection of narratives about epistemic trespassing typically contain explanations of why the reported behavior was, in fact, trespassing.

Such explanations are often given directly *to* the absent party. Jamal reports his own speech in lines 11-16 and 22-26, speaking as-if-to the absent third party, including a second

person pronoun in line 26. It is unclear whether this report is what Jamal *actually* said or what he wished he had said. His Cesar Millan quip feels like the sort of retort one only thinks of hours after a problematic encounter, and many narrators in our collection directly address the third party in a manner that has an air of wish-fulfilment about it. But the accuracy of these reports is largely beside the point – whether such direct addresses are reiterations of prior occurrences or freshly minted admonishments, these narratives include explicit sanctioning of the trespassing party’s behavior. “You”, the speakers say directly to the villain of the tale, “are wrong”.

The features of this narrative are shared by the majority of those in our collection: extensive use of direct reported speech, performative depictions of the trespassing party (often with a mocking quality), various displays of disdain for the trespasser, explicit explanations of the two parties’ relative authority in the domain, and direct addresses to the third party that sanction the behavior.

Our second illustrative extract also contains many of these features. Here, Hannah and Genevieve, who are both members of a cheerleading team, have been expressing annoyance with a third party who does “pathetic” cartwheels and yet was still selected to join the team. Genevieve narrates a tale about this third party epistemically trespassing by offering an unsolicited and inaccurate diagnosis of a mistake Genevieve made during practice.

Extract 2: Stunting

01 GEN: An that’s why I was pissed [when she made the team again]
 02 HAN: [does she go to open] gym?
 03 (1.1)
 04 GEN: Sometimes yeah, and then she tries to correct me and my
 05 stunting=
 06 HAN: ((*eyebrows together & down, mouth open*))
 07 GEN: =and I was like(.6)((*lowers eyebrows, glares*)) I did a- I did a
 08 stretch or whatever (.3) and she’s like (.5) >and it came off
 09 early< and then she’s like ((*whiny voice*)) you’re anticipating

10 it
11 (.6)
12 HAN: [((eyebrows raise, jaw drops))]
13 GEN: [an I'm like]((waves hand back & forth)) no
14 I'm not anti[cipating it=
15 HAN: [((smile & slight laugh))]
16 GEN: =because do you know what anticipating means? It means I would
17 put all my weight on my right foot which is not what I did I
18 [actually pulled my stretch early]
19 HAN: [((smile & nod))]
20 (1.2)
21 HAN: ((shakes head incredulously))
22 GEN: I wanted to smack her - I'm like ↑who do you think you are?↑
23 coming in here (.7)((putting candy in mouth))you can't even do
24 what I was attempting to do
25 HAN: Yeah I saw her ((laughs)) bent leg stretch ((laughs))

Genevieve's narrative shares several features with Jamal's. Genevieve uses direct reported speech in lines 8-10, 13-18, and 22-24, quoting both the trespassing party and her former self. Genevieve effectively re-enacts the entire incident, playacting both parties (Sidnell, 2006). She demonstrates her emotional reaction with a facial expression in line 6, and drastically changes her voice quality depicting the trespasser's speech in line 8.

Hannah, like other listeners, is engaged by the tale, repeatedly giving nonverbal emotional reactions that align with Genevieve's negative portrayal of the third party's behavior. Hannah displays disapproval in line 5 and shock in line 12 as Genevieve reports the trespassing. She then displays amusement and approval in lines 15-19 as Genevieve reports putting the trespasser in her place.

Genevieve vilifies the trespassing party throughout. The emphasized pronouns in line 4, the embedded depiction of emotional reaction in line 7, the mocking quality of the quotation in line 8, the expressed desire for violence in line 22, and the scolding gestures throughout lines 13-18 collectively signal that the absent third party is the antagonist of this account.

Genevieve's report of her own speech in lines 13-24 contains several explanations of why she has superior epistemic authority of the domain in question. A priori, we can assume Genevieve has superior epistemic rights to knowledge of her performance error, both as an agent in control of her own body and as a senior member of the cheerleading community, but she offers additional evidence that the trespassing party is squarely in the K- position. Her rebuke of the trespasser's knowledge is threefold: "Who do you think you are?" she asks, a phrase suggesting someone has unwarranted perception of their own importance; "Do you know what anticipating means?" she asks, suggesting the trespassing party does not understand relevant community jargon; and "You can't even *do* what I was attempting to do" she asserts, suggesting this third party does not possess the required skills to offer up a diagnosis of Genevieve's error.

These reports of Genevieve's own speech are delivered as-if-to the absent third party; she refers to the trespassing party as "you" in lines 16, 22 and 23. She makes back-and-forth scolding hand gestures directed at the absent offender. Genevieve's admonitions, like Jamal's, have a flavor of *l'esprit de l'escalier*. Her story enables her to relive (and perhaps rewrite) the experience of sanctioning the trespassing party. The absence of the offender and presence of a close friend likely makes this sanctioning experience more satisfying than the original experience. There is no possibility of the offender jumping in to defend their behavior, and the sanctioning is endorsed by a friend.

The constellation of features shared by narratives in our collection points to the role that such narratives are serving for participants. The speakers' vilification of the third party, often accomplished through mocking depictions and embodied negative affect, signals to listeners that they too should dislike the trespassing character. The use of direct reported

speech, often coupled with performative depiction, gives listeners enough access to the event to license strong affective reactions. The explicit explanation of the two characters' relative authority and admonishments directed *at* the trespassing party serve to sanction the third party's behavior. Table 1 gives quantities of these features throughout our collection.

Table 3.1	
<i>Quantities of Narratives with Various Stylistic Properties (out of 16 total)</i>	
<u>Narrative Feature</u>	
Direct Reported Speech	15 (94%)
Depiction of Third Party	14 (88%)
Mocking Depiction of Third Party	7 (44%)
Embodied Negative Affect	9 (56%)
Explanation of Relative Epistemic Authority	12 (75%)
Use of "You" to Address Third Party	11 (69%)
<i>Note: Embodied negative affect included eyerolling, eyebrow lowering, and scolding hand gestures</i>	

Features of listener involvement are also similar across narratives in our collection. Listeners are responsive to the various cues offered by speakers. They respond with shock and disbelief after reports of the third party's comments, and with laughter and amusement at reports and re-enactments of the sanctioning. Many listeners jump in to co-narrate the sanctioning or to collaborate in mocking the trespasser. Table 2 gives quantities of listener participation styles in our collection of narratives. The narrators are largely successful at recruiting listener assistance in scolding the trespassers, and in so doing, assistance reifying the speaker's threatened identity.

Table 3.2	
<i>Quantities of Listener Participation Styles (out of 16 total)</i>	
<u>Listener Behavior</u>	
Laughter	12 (75%)
Co-Narration	11 (69%)
Nonlinguistic Shock/Disbelief	7 (44%)
<i>Note: Nonlinguistic shock/disbelief included gasping, jaw-dropping, and non-linguistic verbal exclamations like “ooooo”</i>	

The many commonalities in structure of these narratives and consistent patterns in the listeners’ involvement in them suggests that these narratives constitute a unique genre that is recognizable to participants. Speakers craft these tales to recruit a specific type of alignment and support from their listeners and listeners recognize and respond to the particular social action accomplished through these narratives. By sharing these stories, speakers request, and listeners provide, validation of speaker’s knowledge and identity through a collaborative sanctioning of the trespassing third party’s identity-threatening behavior.

Topics of the Narratives

Our collection of narratives tells tales of third parties overstepping by speaking authoritatively about domains outside their expertise. In all cases, the domain in question is one in which the narrators not only have greater access but superior epistemic rights; they are central to the speaker’s epistemic territory and closely tied to speaker identity. Extract 1 was about the speaker’s pet and Extract 2 had to do with the speaker’s physical performance in an activity she had worked hard to master, both domains in which the speakers had a reasonable expectation of being regarded as experts (Kamio, 1997; Heritage, 2011; Bristol & Rossano,

2020). Other narratives in our collection involve domains even more central to the speaker's identity. For instance, three narratives involve the speaker being inappropriately corrected about their own ethnicity, something that can provoke outrage (Day, 1998). The extract below concerns particularly confrontational incident of this type.

Here, David has been telling Bruce about an evening he spent out at a club with his uncle and some other friends. Early in the evening, David encountered some female acquaintances who had brought with them some male friends from out of town. David signals his dislike for the out-of-towners (and foreshadows their aggression and racism) by mentioning their wardrobe ("UFC shirts... Tapout hats...camo pants") and their transportation ("huge raised trucks [with] confederate flags on the back"). David reports that he and the other characters in his story went separate ways for most of the evening, until about 2:30 am when the lights came on and everyone was leaving the club. At this point, one of David's acquaintances came up to say goodnight and one of the out-of-towners in her company offered aggressive commentary about David's ethnic background.

Extract 3: Turkish

01 DAV: the guy that she came with like pushes her out of the way and
02 like kind of like shoves me
03 BRU: ((*lowered eyebrows*))what. the fuck?
04 DAV: like he puts his chest kinda-he's a little bit taller than me
05 like a head taller-he puts his chest to my ((*slaps shoulder*))
06 shoulder
07 BRU: >yeh<
08 DAV: >he kept on going like that< and I'm looking the other way
09 ((*points forward*)) 'es like you're one of those damn osama guys
10 huh?
11 BRU: ((*eyebrow raise & head to side*)) whu::t.
12 DAV: (1.0)((*rolls eyes with smile*)) >I-wuz-jus-kinda-like< >Im< I'm
13 pretty drunk and he's obviously just shit-faced and >she'slike<
14 ((*high voice*)) David just ignore him ((*back & forth hand wave*))
15 he's really [drunk=
16 BRU: [((*eyebrow lowering*))]
17 DAV: =>an'I-wuzlike< ok that's fine so I [turned around]
18 BRU: [((*head shake*))]
19 DAV: he came up and did it again ((*chin juts out*)) >e'slike< you're

20 one of those damn osama guys ((*swift head tilt*)) (0.6)
 21 [>an-I-wuz-like<]
 22 BRU: [((*smiles*))]
 23 DAV: listen I don't know what you mean by that. >I-wuz-like< if
 24 you're implying [that I'm] of the Arabic descent↓=
 25 BRU: [((*laughs*))]
 26 DAV: =>>°I'mjustlike°<< that's wrong I'm actually Turkish
 27 BRU: ((*laughs*)) [It's like yer jus-]
 28 DAV: [which is- which is] considered European to most
 29 Middle Eastern countries=
 30 BRU: =yeah ((*shakes head*))
 31 DAV: an'he just kinda looked at me like ((*confused face*)) an
 32 [>hejus<]goes
 33 BRU: [wut.]
 34 DAV: >he jus-he said< >blatently to my face< he goes <no.> (.6)
 35 BRU: ((*laughing grin*))
 36 DAV: >hegoes< <you're one of those damn osama guys> like ((*smiling,*
 37 *pointing and shaking finger*)) everything you just said
 38 BRU: is wrong
 39 DAV: is not true ((*finger point*))and you're lying ((*finger point*))
 40 BRU: you're wr-you're
 41 DAV: ((*finger pointing, leaning forward, laughing*)) you're an osama
 42 guy
 43 BRU: tell- you tell me what I am-
 44 DAV: ((*full laughter*)) heheyeah
 45 BRU: I don't know my own history or ethnicity

Like the previously highlighted extracts, this narrative includes extensive use of direct reported speech and depiction. David offers direct quotations in lines 9-10, 14-15, 19-20, 23-29, 34, and 36. He also physically depicts the described events, slapping his shoulder in line 5, and jutting out his chin in line 19, mirroring the physical and verbal confrontation from the trespassing party. He imitates the gestures and vocal quality of his female friend who tries to allay the confrontation in lines 13-15. He substitutes a confused look in line 31 for a noun phrase to describe the third party's lack of understanding. He routinely looks and points to the same space as he is quoting the third party, in effect staging a small play for his recipient (Sidnell, 2006; Thompson & Suzuki, 2014). These techniques function to elicit a strong reaction from his listener, as they did in the previous extracts.

Bruce's involvement is so extensive that he may be better considered as a co-narrator. Not only does Bruce give dramatic nonverbal reactions throughout, he repeatedly contributes

verbally. He expresses dismay and disbelief in lines 3, 11 and 16 as the initial offense is described, and gives an incredulous head shake at a possible conclusion of the tale in line 18. As David transitions to reporting his retort, Bruce displays amusement with smiles and laughter in lines 22, 25 and 27 and confirms David's claims with a head nod and a "yeah" in line 30. And yet Bruce does more than react—he participates in the narration. Bruce gives what appears to be the beginning of an admonishment in line 27, and then sarcastic examples of what David might have said back in lines 43 and 45. He participates in the depiction of the third party, offering a confused "wut" in 33, describing the face David just displayed, and finishing David's sentence in line 38, depicting and mocking the third party's logic in 38 ("is wrong"). Bruce's reactions and involvement highlight the crucial role of recipients in these narratives – they assist in sanctioning the trespassers.

One notable way in which this narrative differs from those shown earlier is that the speaker appears more amused than angry, despite the offensive nature of this particular trespass. David does not dramatically change his vocal quality when reporting the trespasser's speech as the previous narrators did, nor does he explicitly villainize the offending party (although the out-of-towners were labelled by Bruce as "douchebags" before the beginning of the extract). David mocks the trespassing third party in lines 36-42 by imagining absurd statements, or pseudoquotations, that would support his logic (Dubois, 1989). However, this feels more lighthearted than the direct rebukes we saw in Extracts 1 and 2. This mocking is more of a joke between participants than admonishments directed *at* the trespassing party; indeed, the only use of a second person pronoun to directly address the third party comes from Bruce in line 43. This narrative is presented as a funny story and the third party is ridiculed more than scolded.

One possible reason for the comparatively mild sanctioning in this extract is the conclusion of the tale. David reports punching the trespassing party so hard that he falls down in the middle of the dancefloor, at which point David's uncle approaches, points down at the fallen third party, and laughs. Perhaps David's narrative contains less after-the-fact verbal sanctioning because he addressed the offense with a physical retribution at the time of the incident. This may also account for the generally jovial tone throughout. David may not be in need of as much assistance in admonishing the trespassing party because his uncle already endorsed his reactive actions in the moment; he is reporting an offense that has already been redressed.

Ethnicity is not the only domain of knowledge tied to identity. Knowledge of personally relevant locations (buildings, neighborhoods, towns & countries) is also part of one's epistemic territory, and two narratives in our collection concern places speakers have lived. In this next extract, Janet and Mike have been lamenting the recent summer heat, and Mike has been explaining that his apartment building does not allow window air conditioning units. He gives a brief but intense rebuke of his mother's skepticism about the temperature challenges in his apartment.

Extract 4: Afternoon Sun

01 JAN: You do get that afternoon sun though
 02 MIK: °I do.°
 03 JAN: ((*smile & snort*))
 04 MIK: ↑my mom doesn't believe me↑ that sun shines straight into my
 05 apartment n'she's like ((*bunched nose, whiny voice*)) <°It's-
 06 north facing Mike you never get sunshine°> ((*normal voice*))
 07 >MOM I GET FUCKING SUN everyday< ((*smile*))
 08 JAN: ((*smile & laugh*))
 09 MIK: It's so: ho:t ((*laugh*))
 10 JAN: There's so many windows (.) and you're up high

Even in this brief extract, we again see many stylistic features common to our collection of narratives about epistemic trespassing. Mike uses direct reported speech in lines 5-6, and the style of quotation is both depictive and mocking. His prosodic changes mark the distinction between different characters in the tale (Klewitz & Couper-Kuhlen, 1999). He directly addresses the third party in line 7, strongly asserting facts about his own apartment. And Janet, like other recipients of similar narratives, endorses the speaker's perspective, agreeing with facts about sunlight in his apartment in lines 1 and 10, as well as laughing at his retort in line 8.

Knowledge of one's living space is something about which people typically have superior epistemic access. Although Mike does not include an explicit explanation of his superior knowledge in this domain, it seems a safe assumption that he spends more time in his apartment than anyone else and is best equipped to know about the quality of the light within. Although the trespassing incident (and report of it) are short, he does seem rather annoyed by being disbelieved about this domain and his tale solicits listener agreement with his perspective.

Other domains of knowledge discussed in the narratives are also central components of epistemic territory. Many participants in our corpus of conversation were students, and knowledge and skills gained through study are closely tied to their professional identities. Three narrative in our collection have to do with academic performance. In this next extract, Angela is complaining to Steven about an unfair grade she received from an unknowledgeable teaching assistant (TA).

Prior to this extract, Angela and Steven were discussing a problematic professor with whom they had both taken classes. Angela reports receiving 1.5 points off her first assignment

and not understanding why. She grudgingly accepted the grade since the overall score was still an A-. She then moves on to the chief complaint – her grade on the second assignment, which required students to describe features of relationships and patterns of courtship.

Extract 5: Bad TA

01 ANG: Then(.) this last one(.) they marked me down seven. points.
02 STE: ((*eyebrow raise, chin forward*)) Wha:t.
03 ANG: An'like so patterns of relationships I had looked in the book-
04 STE: ((*mouth open eyebrows down, nodding*))
05 ANG: like yeh read chapter four
06 STE: yeah
07 ANG: page one-oh-whatever it was ((*miming book reading*)) and like
08 patterns of relationship long and short
09 STE: YES
10 ANG: and so I put that directly in.
11 STE: ye:ah
12 ANG: like used like my example but like [from the book]
13 STE: ((*nodding*)) [Compared from the book]
14 yeah
15 ANG: An they marked me off complete points for that saying I did it
16 wrong(.) so
17 STE: ((*jaw drop, eyebrow raise*)) Wha:t ((*shakes head*))
18 ANG: I've scheduled an appointment with him cuz I just got that back
19 yesterday and I was like- ((*head lowering, staring*))
20 STE: Good that's the [one thing he's]
21 ANG: [↑Are you kidding] me?↑ [like]
22 STE: [Yeah] seven points'f-
23 ANG: ((*miming points at paper*))you're- you need to look at this and
24 see like=
25 STE: =what your TA's are [really grading on]
26 ANG: [I mean I'm an A] student ((*hand to*
27 *chest*))
28 STE: yeah
29 ANG: an' I put thought into thi[s a]ssignment a:nd=
30 STE: [yes:] ((*nodding*)) =your TA's are=
31 ANG: the TA just (0.5)
32 STE: yeah ((*shakes head*))
33 ANG: doesn't know what they're talking about
34 STE: no
35 ANG: cuz they underlined it ((*underlining gesture*)) and they said
36 this is not ((*shakes head*)) a pattern of courtship and I
37 >wuzlike< ((*smile, nodding*)) °yes it [is°] ((*juts head*
38 *forward*))
39 STE: [yes] it is like know your stuff
40 ANG: mmhmm

This extract differs from others in our collection since the trespassing occurred in written communication rather than in a spoken interaction, and as such, occurred across a

greater timespan than the incidents depicted in other narratives. There are also two potentially relevant third parties: the professor and the TA. Angela's use of direct reported speech in this narrative does more than just reenact a single conversational incident; it includes reports of writing, reports of thoughts, and planned future interactions.

Angela indirectly reports the written comments of the TA in lines 15-16, and appears to quote what was written on her assignment in lines 35-36. Some of Angela's reported 'speech' appears to be reported thought expressing her reaction to receiving a low score on the assignment (Haakana 2007). Angela gives a nonverbal display of upset in line 19, and a verbal report of disbelief in line 21 ("Are you kidding me?") where the 'you' seems to be addressing the teaching assistant but could alternatively be the professor. The 'incident' here is when Angela received the grade on her assignment. Angela's next direct quotes appear to be plans of future speech rather than a report of the 'incident', functioning as a sort of rehearsal of her communication with the professor at the appointment she has scheduled. The second person pronouns in lines 23 and 30 are unambiguously directed at the professor, instructing him to attend to the grading practices of his teaching assistants.

This narrative is similar to others in terms listener involvement. Steven is deeply involved in the telling of the story and emphatically validates Angela's perspective at every turn. He reacts with shock to the reported trespass with incredulous remarks and expressions in lines 2, 4, and 17. He enthusiastically agrees with all of Angela's points, often in overlapping talk. He validates her points with affirmatives in lines 6, 9, 11, 14, 22, 28, 30 and 39, and one negative in line 34. Steven also co-constructs many sentences, anticipating or echoing Angela's comments. He contributes with longer comments in lines 13, 20, 22, 25, and 39, some of which contribute directly to the imagined or planned sanctioning. His addresses

to the professor in lines 25 and 30, and to the TA in 39, are as much a part of the rebuke as Angela's.

Angela's narrative contains extensive explanation of why she has superior epistemic authority over the domain in question. This emphasis may be due to competing structural authority; since the teaching assistant is institutionally sanctioned as an expert, Angela must explain in depth why she is actually the authority in this scenario. She reports taking her answers directly from the book in lines 3, 5, and 10, but is sure to mention that she also used her own examples in line 12, demonstrating that she didn't *just* copy from the book. She invokes her identity as an "A student" in line 26 and reports putting thought into the assignment in line 29. Finally, in line 37 she asserts the factual accuracy of the claims she made in the assignment.

While the specific fact covered in this assignment may not be intimately connected to Angela's identity, her sense of being "an A student" was threatened by the low grade and incorrect comments written on her assignment. This narrative solicits—and receives—assistance from Steven in validating her perspective. He agrees that she was correct about the fact in question and reinforces her view that the teaching assistant was wrong and ought not have docked her so many points. Unlike other narratives in our collection, this extract is also forward-looking. Steven validates Angela's plan to redress her grievances by meeting with the professor.

All of the topics covered in our collection of narratives are connected to the speaker's identity. Of the sixteen narratives, four concerned physical fitness or team sports (including "Stunting" above and "Running" below), three concerned ethnicity (including "Turkish" shown above), three concerned academic and career performance (including "Bad TA" shown

above), two concerned location (including “Afternoon Sun” shown above), one concerned pets (“Chewer” shown above), one concerned children, one concerned financial independence, and one concerned clothing. Our narrators were understandably territorial about these domains, and successfully requested and received confirmation from their listeners that they did, in fact, retain dominion over this knowledge.

Listener Orientation to the Genre

We argue that complaints about the epistemic trespasses of third parties constitute a particular genre of narrative, and that stories of this variety are told in order to recruit listener assistance of an after-the-fact sanctioning of the trespassing third party. Listeners in our collection seem to recognize this genre and respond to the narratives by endorsing the speaker’s perspective of the trespassing event. Listeners and speakers form an ‘in group’ which shares the perspective that the third party was indeed in the wrong and that the speaker does in fact have superior rights to the contested information. Listeners also display amusement and approval at the admonishments directed to the trespassing party, often participating in the sanctioning. Listener participation in the narratives assists in reifying the speaker’s threatened identity. Identity is socially constructed and, when infringed upon, must be socially re-constructed.

Sharing narratives about epistemic trespassing seems to be a relatively commonplace practice in casual conversation between friends. Listeners tend to orient quickly to this type of tale and react appropriately. This is particularly apparent in instances where the narrator does not flag the reported trespass as problematic, but the listener still reacts as if it is. In this next extract, the narrator, Anne, is in the middle of generally praising her boyfriend, who is unsure

of his career path but planning to go back to school. She mentions that he “pushes her” which her recipient, Brianna, agrees is a good thing until Anne gives a specific example of this pushing which crosses over into epistemic trespassing. Brianna reacts with shock, just as other listeners did when given more affective cues.

Extract 6: Running

01 ANN: I like that he’s so uh: level-headed >yehknow, at the same
 02 [time< even though he’s not like necessarily like doing]=
 03 BRI: [((nodding))]
 04 ANN: the ideal like path >that everybody else does<
 05 BRI: right
 06 ANN: he’s still level-headed and like he’ll push me n’like=
 07 BRI: That’s good
 08 ANN: =like the other day he was like ((raised eyebrows, lowered
 09 gaze))you need to start running again when the
 10 [weather ((laughing))]
 11 BRI: [((raised eyebrows, jaw drop))][oh:]
 12 ANN: [when the weather gets nice] out
 13 BRI: You’re like ((tight lips, lowered eyebrows, glare))
 14 ANN: I was like ↓I know.↓ ((laughing))I know this
 15 BRI: ((glaring))leave me alone
 16 ANN: ((laughing)) yeah. So funny. ((hand to nose)) °ohmyga-°

Anne’s account of the conversation with her boyfriend does comparatively little to flag the trespass as problematic. She sets up the incident not by vilifying the third party, as many other narrators do, but by praising the party’s level-headedness in lines 1 and 6 and expressing appreciation for the fact that he pushes her. Her listener, Brianna, nods along in line 3 and offers validation in line 5, agreeing with Anne’s positive assessment of the boyfriend. Brianna offers a positive assessment of the pushing behavior in line 7. All seems well until line 8, when Anne’s narrative begins to resemble others in our collection. The speaker vilifies the trespasser, uses direct reported speech, physically displays negative affect, and explains why she is entitled to know more about the domain in question. Meanwhile, the listener gives strong emotional reactions and co-narrates the sanctioning.

In line 8, Anne directly reports her boyfriend's speech, giving a mocking depiction of his unsolicited directive to go running, the first sign of negativity in her account. Brianna immediately reacts to this report in line 11 with both vocal and embodied markers of shock and surprise, and Anne responsively laughs through the end of her quotation. Brianna participates in the narrative, imagining a sassy non-verbal response from Anne in line 13. Anne reports her own speech in line 14 – an irritated “I know”, a bare-bones assertion of epistemic authority, softened with laughter. Brianna continues narrating Anne's imagined response in line 15: a dirty look and a dismissal. Anne concludes in line 16 by laughing and labeling the entire thing as comedic, although her final hand gesture resembles that of someone with a headache, suggesting lingering annoyance. Both participants are oriented to the fact that epistemic trespassing is problematic, even when the trespassing incident is buried within a globally positive narrative.

Another demonstration that conversational participants are familiar with this particular genre of narrative is that such incidents are considered story-worthy even when they do not directly involve either of the participants in the interaction. The following extract (not included in our collection of sixteen) is an account of epistemic trespassing between two absent third parties, where the speaker was just a witness.

In this extract, Linda is telling her daughter Jennifer a story about the family grandmother, Moreen, trespassing into the epistemic territory of Rosie, another family member.

Extract 7: Pregnant

01 LIN: ...you even say stuff about Rosie's weight who weighs like a
02 hundred and ten pounds but she ha-carries it more in her tummy
03 so every time Grandma Moreen sees her she's like ((*high pitched*
04 *shaky voice*)) Rosie, are you pregnant?

05 JEN: ((*jaw drop & gasp*))
 06 LIN: an Rosie says [no Moreen, I told] you, I've had. my. tubes.
 07 tied.
 08 JEN: [↑oh my go::d↑]
 09 LIN: an she goes ((*high pitched shaky voice*)) well I'd still go'n
 10 have that double checked cuz [you're gettin awful poochy in the
 11 tummy]
 12 JEN: [((*jaw drops, hides mouth behind*
 13 *knee*))]]
 14 LIN: and uh=
 15 JEN: ((*laughing*))oh ho ho ↑OH MY GO:D↑
 16 LIN: I know - so...

Despite Linda not being the one trespassed upon, her narration stylistically resembles extracts in our collection. Linda uses direct reported speech in lines 4, 6-7, and 9-11 and gives a mocking depiction of the trespassing grandmother by changing her vocal quality (Clark, 2016). The story recruits and receives a strong reaction from the listener; Jennifer displays strong emotional reactions in lines 5, 8, 12-13 and 15. The narrative lacks the explicit social sanctioning present in our collection of extracts, perhaps because it does not directly involve either of the speakers.

The topic of this narrative is very personal, and the trespassing violation is particularly notable. Incorrectly assuming someone is pregnant is often presented as a comedic exemplar of offensiveness; Jennifer's reaction in line 5 attests to the presumptuousness of even *asking* about pregnancy. Rosie's response in lines 6-7 shows that the question was especially unreasonable, since Moreen apparently knew that pregnancy for Rosie was impossible. But Moreen's trespassing goes even further in lines 9-11, disbelieving Rosie's report of her own pregnancy status as well as being critical of her body. This particular instance of trespassing was strong enough to become a gossip-worthy account of a social faux pas. Linda's conclusion in line 15, ("I know") endorses Jennifer's exclamations. Both parties orient to the inappropriateness of Moreen's comments, but the story plays a different role than those in our

collection, which report on incidents that directly threaten the identity of the speaker. Here, both parties are orienting to a shared perspective of Moreen as a trespasser but are not collaborating to reconstruct threatened identity through sanctioning.

The fact that a narrative about epistemic trespassing that does not feature the speaker as the victim shares so much in common with our collection of narratives (and elicits such similar reactions from the recipient) attests to the recognizability of such events as “tellable” (Sacks, 1995; Sidnell, 2010) and further suggests that stories about them constitute a unique and recognizable genre of narrative. Instances of epistemic trespassing are salient and negative events in the lives of speakers and narrating the incidents to close friends helps to reinforce social norms about respecting the epistemic territory of others.

Discussion

We have identified a particular genre of narrative and highlighted its features and functions. In our collection of extracts, speakers explain exactly why the described incident constituted trespassing, articulating their epistemic authority and staking a claim to the knowledge domain in question. Speakers vilify the trespassers, signaling to listeners that there is a clear villain in their story. They also give detailed depictions of the trespassing incident, giving listeners enough access to the events to license a strong emotional reaction. The speakers—and often listeners as well—speak directly *to* the trespassing party, admonishing them for their behavior. Speakers appear to be seeking listener assistance in an after-the-fact sanctioning of a trespassing third party, as well as confirmation that they maintain dominion over particular regions of their epistemic territory. Telling these stories is a way of reconstructing and maintaining speaker identity.

The consistency of listener responses in our collection suggests that these narratives constitute a specific and recognizable genre. Although this genre has much in common with other types of complaining, we believe it is distinct. The listener's role in particular speaks to this difference. Listeners in our collection respond with outrage at the described trespass, validate the speakers' perspectives, and often co-narrate the sanctioning. This is distinct from typical listener reactions to other types of "trouble talk" (Jefferson, 1988), where listeners display affiliation and sympathy in response to strong emotions displayed by speakers. The listener's role in narratives about epistemic trespassing seems distinct even from similar narratives complaining about the misconduct of others, where listeners tend to align with the speaker's view of the inappropriateness of the reported behavior (Drew, 1998; Schegloff, 2005). Listeners in our collection do indeed validate the speaker's perspective of the conduct of others as problematic, but they do more than this; they also validate the speaker's identity and collaborate in sanctioning the third party. Both speakers and listeners orient to these narratives as a distinct genre; listeners respond consistently and appropriately to the speaker's requests for alignment and support.

The topics of the extracts in our collection reinforce the idea that epistemic trespassing is most troubling when it concerns domains of knowledge closely tied to individual identities. Speakers were upset by being talked down to about topics like their ethnicity, their residence, their physical abilities, careers, children and pets. Although the instances depicted by narratives in our collection may be seen as isolated incidents, similar interactions can build up into structural patterns. The knowledge retained by some identity groups is more likely to be questioned than that of others, and patterns of epistemic trespassing accumulate into epistemic injustice (Fricker, 2007). Societal acceptance of identity, in part, means that others respect

one's epistemic territory, while marginalization, in part, means that one is not respected in one's capacity as a knower. As such, identity, as well as the epistemic territory that supports it, must be socially reified.

Although it has long been acknowledged that the exchange of narratives during talk-in-interaction is a crucial dimension of identity-work, we believe we have identified a unique tool used by participants to construct their identities when interacting with close associates. Speakers share a trespassing incident with a close friend, and the two parties collaborate to create a shared perspective of the speaker's identity and a shared view that the trespassing party was indeed speaking out of turn. These interactions create a space where the epistemic territory of the speaker is respected, and the part of their identity related to ownership of knowledge in a particular domain is recognized.

Like any other type of ownership, ownership of knowledge depends on the recognition of others. For the concept of property to function within a society, it requires not only a relationship between owner and object, but a recognition of this relationship by other members of the society (Snare, 1972). Epistemic territory, like other territories and other possessions, must be socially recognized. Social recognition of norms entails, in part, social sanctioning of norm violations. The social notion of ownership requires punishment of theft; the continued existence of personal space requires that people react negatively when others get too close, and the maintenance of an individual's epistemic territory requires that they report trespasses. Sharing narratives about violations of the epistemic territory with others who recognize the recounted *as* violations reinforces the social norm of the existence of territorial boundaries and validates the identity of the speaker by affirming their ownership of the knowledge in question. Speakers and listeners collaborate to sanction third parties for

violating a social norm of respecting others' expertise in interaction, and in so doing, reinforce the norm.

Chapter 3, in full, has been submitted for publication of the material as it may appear in *Language and Communication*, 2021, Bristol, R., Al Haqab, S., & Rossano, F. The dissertation author was the primary investigator and author of this material.

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CHAPTER 4

Epistemic Trespassing and Disagreement

Abstract

Communication in face-to-face human interaction entails complying with social and moral norms about knowledge possession and transfer, and violations of these norms are sanctionable offenses. Underestimating an addressee's knowledge can be tantamount to an insult, especially in domains over which they have superior epistemic authority. This paper examines cases where parties are in explicit disagreement about both the content of an utterance and relative authority over the knowledge in that domain. In three studies, participants judged the relative acceptability of disagreement across different knowledge domains and across conditions in which the disagreeing parties had various social relationships and/or differing levels of expertise. The acceptability of disagreement systematically differed across knowledge domains, suggesting there is gradient texture to 'epistemic territory'. The results also suggest that social distance and relative epistemic authority independently modulate the perceived acceptability of disagreement, as do the relative time and effort spent on knowledge acquisition.

Introduction

Conversation is simultaneously one of the most ubiquitous and one of the most cognitively complex activities that humans engage in. In addition to parsing and preparing linguistic signals—remarkable cognitive achievements in themselves—conversation partners must track a myriad of interactional variables such as their audience's gestures, gaze, attention, and affect, all of which both influence and are influenced by the linguistic signals

that are produced (Levinson 2006; Clark 2016). One of the most difficult considerations that conversational participants should take into account when planning their utterances is the knowledge state(s) of their co-participant(s).

Even small and seemingly insignificant communicative choices require knowing or assuming things about an interlocutor's knowledge state. For instance, just choosing whether to use an indefinite or definite determiner requires calibrating audience familiarity with the noun phrase to follow (Heim 1982). It is well established that speakers adjust their style, vocabulary, and content to their listeners – a phenomenon often referred to as *recipient design* (Garfinkel 1967; Sacks, Schegloff and Jefferson 1974; Clark and Carlson 1982; Bell 1984; Sacks 1992; Schegloff 1996; Levinson 2006). Simply put, a speaker's understanding of their listener plays a fundamental role in shaping their utterances.

Where this understanding comes from and what it entails have been the subjects of considerable attention as well as debate. Many scholars suggest that successful communication relies on *common ground*—or mutual knowledge, beliefs, and assumptions (Clark and Marshall 1981; Clark and Brennan 1991; Clark 1996). Clark (1996) suggests a distinction between *communal common ground*, based on membership in various cultural communities, and *personal common ground*, based on people's shared interactional history. *Communal common ground* is hierarchical so that at the very base are shared features of virtually all humans (e.g. sensory capacities, or the idea of family) and upon this base are built smaller cultural communities, such as those based around nationality, language, cohort, gender, occupation, or hobbies. Individuals belong to numerous different cultural communities, each of which shares a common ground. Even out-group members may use community membership to estimate others' knowledge, although out-group knowledge will

be less detailed and likely less accurate than an insider's understanding. *Personal common ground*, on the other hand, is the sum of knowledge exchanged between acquaintances, friends, relatives and partners over the course of their (sometimes considerable) interactional history.

The work on common ground focuses on knowledge that is shared, but interaction crucially depends on having at least some unshared knowledge – in fact, epistemic asymmetry may actually be the thing that drives conversation (Heritage 2012b). Epistemic asymmetry can also be a source of contention. Having, lacking, and transferring knowledge are not neutral states and activities. Knowledge is intimately tied to our identities (Raymond and Heritage 2006; Stivers, Mondada, and Steensig 2011). With a liberal enough definition of knowledge, we literally *are* what we know. Thus, the expression of knowledge within interaction can have important social implications for the parties involved (Levinson 2012).

Languages provide a variety of lexical and grammatical resources for marking both the certainty and source of knowledge (Chafe 1986; Ifantidou 2001; Mushin 2001). Language employed within conversational interaction provides additional resources for marking relative authority over knowledge: the relative positioning of an item within a sequence of interaction. Speakers who talk first and make declarative utterances claim superior epistemic authority, but can downgrade this claim by using evidential markers, epistemic modals, or tag questions (Heritage and Raymond 2005; Raymond and Heritage 2006). Speakers who talk second after being addressed with declaratives typically claim less epistemic authority but can upgrade their claims using a variety of strategies including tag questions, modified repeats, and negative interrogatives (Heritage and Raymond 2005; Stivers 2005; Raymond and Heritage 2006; Sidnell 2014).

An individual's use of these linguistic and interactional resources within an interaction is what Heritage calls epistemic *stance*—the moment-by-moment management of relative epistemic authority through turns-at-talk. These dynamic expressions contrast with something more enduring which Heritage terms epistemic *status*, which is “what is known, how it is known... and persons’ rights, responsibilities and obligations to know it” (Heritage, 2013b, p. 377). Although ascertaining the actual epistemic *status* of any party with complete certainty is ultimately impossible (both to the parties in the interaction as well as to observers after the fact), it is evident when the *stance* taken by one party is treated as problematic by another. Despite the many and varied strategies that conversation partners have for calibrating one another's epistemic status, people sometimes get things wrong. There are conversational practices that allow for repair of all sorts, including the correction of epistemic miscalibration.

Sometimes, one party overestimates another's status. If Speaker A addresses Speaker B as if B knows more than B actually does, Speaker B will likely be confused and may indicate this in their next turn at talk. Speaker A may then clarify in the following turn at talk. This general pattern of events has been well documented in some of the conversation analytic literature on repair (Jefferson 1974; Schegloff Jefferson, and Sacks 1977; Goodwin 1983; Schegloff, 1992; Drew 1997). Conversational repair can be used for a myriad of functions, including repairing mistaken presuppositions about another party's knowledge (Raymond & Sidnell, 2019). Most literature on the understanding of others has been largely focused on understanding how conversation partners are able to say *enough* to get one another to understand. This is the entire question behind literature on *common ground*.

But *common ground* is only one side of the coin – the other is the notion of epistemic territory. Common ground is all about what is shared and communal, whereas territory is all

about having a space that is *not* shared – that you can mark and defend against intrusion. And while it *is* important to calibrate a listener’s knowledge state to make sure that they understand you, it is also important to ensure you are not telling them something they already know.

The fact that this is problematic has been previously noted: Goodwin (1979) echoes Schegloff and Sacks (1973) when he states there is “a general rule that provides one should not tell one’s co-participants what one takes it they already know” (p. 100). It is a delicate balance: listeners should know enough to understand what is being discussed, but ought not already know the information contained in a statement addressed to them (Terasaki 2004).

Despite the double-sided nature of this calibration, one side has received the lion’s share of attention in various literatures – the side of making sure others understand. But this is only one constraint on interaction. One must also (depending on one’s social purposes) try not to offend. And, depending on the domain in question, intruding into someone’s epistemic territory and metaphorically stepping on toes can be at least as offensive as literally doing so.

Some parts of epistemic territory are more evident than others. People are ‘entitled’ to know more about their experiences than others are (Sacks 1984). People also typically have—and are typically treated as having—superior access to knowledge domains related to their mental, physical and emotional states (Heritage 2011; Heritage 2012a). People are also “generally treated as knowing more about their relatives, friends, pets, jobs, and hobbies than others” (Heritage 2012a, p. 8). In a volume about territories of knowledge, Kamio (1997, p. 18) provides a four-point list of things that people can typically be assumed to know better than others:

- a. Information obtained through the speaker's/hearer's internal direct experience,
- b. Information embodying detailed knowledge which falls into the range of the speaker's/hearer's professional or other expertise,
- c. Information obtained through the speaker's/hearer's external direct experience including information verbally conveyed to the speaker/hearer by others which he/she considers reliable,
- d. Information about persons, objects, events and facts close to the speaker/hearer including such information about the speaker/hearer him/herself

Existing discussions of epistemic territory provide lists of domains of knowledge that belong within the territory, but these lists lack hierarchical structure. We hypothesize that, in domains where calibrating epistemic authority is relatively straightforward, consequences of miscalibration are likely to be particularly severe. Taking an authoritative position about domains that are squarely within another's epistemic territory can be socially unacceptable (consider 'informing' or 'correcting' someone about their ethnicity, religious beliefs, emotions, or physical sensations). The terms *gaslighting* and *mansplaining* used colloquially to describe this type of offensive behavior. The following studies investigate the comparative acceptability of intrusions into different knowledge domains—which occupy different positions within a party's epistemic territory.

This paper hypothesizes that epistemic territory has hierarchical structure. We envision epistemic territory as a sort of archery target, with concentric circles radiating outwards from a core. This core is what Kamio (1997) refers to as "internal direct access", and philosophers and psychologists sometimes call *qualia* (Dennett 1988) – knowledge related to subjective experience or obtainable only through introspection (things like mental, physical, and emotional states). The next circle outwards in epistemic territory is composed of knowledge domains related to one's social identity, like one's profession, family, location of origin, residence and so on. The peripheral circle of epistemic territory is composed of general

knowledge about the world not directly tied to identity or experience. We hypothesize that, the closer to the core, the more territorial a person will be about a knowledge domain, and the more upset they will be at improper intrusion. The normative ‘rule’ against telling others what they already know is likely to have varying consequences depending on how deeply they know the information in question, as well as the epistemic gradient between the conversational co-participants.

There is a considerable amount of work documenting how various linguistic and interactional resources can be used in conversation to negotiate relative authority over the domain being discussed (Heritage & Raymond, 2005; Stivers, 2005; Raymond & Heritage, 2006; Heritage, 2012a; Heritage, 2012b; Smith, 2013; Heritage, 2013a; Heritage, 2013b; Robinson, 2013; Sidnell, 2014; Heritage & Raymond, 2016; Mikesell et. al., 2017; Bolden, 2018; Drew, 2018; Heritage, 2018). While some of this literature explores cases where epistemic negotiation escalates into something that might be called conflict, much of the work on this topic has focused on assessment sequences in which the parties are in agreement (Sidnell, 2014). There may be a dispute of epistemic authority or relative entitlement to make an assessment, but on the surface, parties agree. Indeed, the sub-textual nature of epistemic dispute is sometimes noted as a *feature* of the practice: “Epistemic positioning...is typically brought off *en passant*, in the course of whatever else it is the participants are doing” (Sidnell 2014, p. 128). However, sometimes the buried tensions of epistemic dispute are brought to the surface of interaction and explicitly discussed or even fought-over. The following studies explore cases where parties have explicit disagreements a claim’s factual accuracy in order to better understand the texture of epistemic territory. We believe that experimental methods can complement findings from conversation analysis, as advocated by Kendrik (2017).

Study 1A

This study compares the relative (un)acceptability of epistemic trespassing in core, mid and peripheral parts of epistemic territory.

Materials and Methods

119 participants were recruited through Amazon Mechanical Turk, all with IP addresses located in the United States. The data were collected in two batches. The first 54 participants were given a maximum time of 35 minutes to complete the tasks (and did so in 27 minutes on average), but several participants reported feeling rushed, so the second group of 65 participants was given 45 minutes to complete the tasks (and did so in 42 minutes on average). Participants were excluded if they attempted the study more than once, took less than 15 minutes to complete the study, or provided non-answers for more than half of the fill-in-the-blank portion of the study, leaving 91 participants' data for analysis. There were no significant differences in the patterns of responses between the two groups in either task² so the data were combined for analysis.

For the first task (Study 1A), participants were asked to read through 32 two-line exchanges where Speaker A makes a claim, and Speaker B disagrees and makes a counterclaim (e.g. A: My computer is overheated. B: No it isn't. It has a virus) and asked to judge the rudeness/politeness of Speaker B's statement on a 7-point scale (ranging from 'Very Polite' to 'Very Rude'). These verbal descriptions were converted to a numerical scale for analysis, with 0 as "Neutral" and numbers up to 3 representing increasing rudeness, and

² There was no significant main effect of batch for the rankings given in study 2A, $f(1,89) = 0.6, p = .44$, and in study 2B, chi-square tests for independence of the batch and the category codes were not significant, $X^2(7, N=54) = .039, p = .1$.

numbers down to -3 representing increasing politeness. The stimuli were designed such that the domains being discussed fell into three different layers of the hypothesized circles of epistemic territory. The first group of stimuli is about ‘core’ knowledge – things about which a person is *necessarily* more knowledgeable than any other party (physical, mental, and emotional states). The group is about ‘mid’ knowledge – things about which another party *could* know more but is unlikely to (family background, family members, jobs, schedules, possessions, and childhood memories). The third category is about ‘peripheral’ knowledge – things about which either party is equally likely to be more knowledgeable (facts about the world such as features of restaurants, buildings, towns, flora, fauna, films, weather, etc.). There were 8 core, 8 mid and 16 peripheral stimuli (see Appendix).

Participants were informed that each conversation occurred between different speakers, that all sets of speakers were casual acquaintances of about the same age, and that all conversations happened in public settings. In each case, Speakers A and B were identified by different initials. All 32 interactions were presented on the same page in random orders, and participants were informed that they were welcome to revise their answers to earlier questions after reading later ones.

Results

The average acceptability ratings were significantly different for the core, mid and peripheral knowledge domains. A repeated measures analysis of variance showed that the effect of bulls eye position was significant, $F(2,180) = 259.3, p < .0001$. Follow up pairwise comparisons were conducted using a Bonferroni adjusted alpha level of .017 per test (.05/3). These revealed that trespassing into core domains was considered significantly ruder than

doing so in both mid domains, $t(90) = 9.6, p < .0001$, and peripheral domains, $t(90) = 18.3, p < .0001$, and that trespassing in mid domains was considered significantly ruder than doing so in peripheral ones, $t(90) = 16.4, p < .0001$.

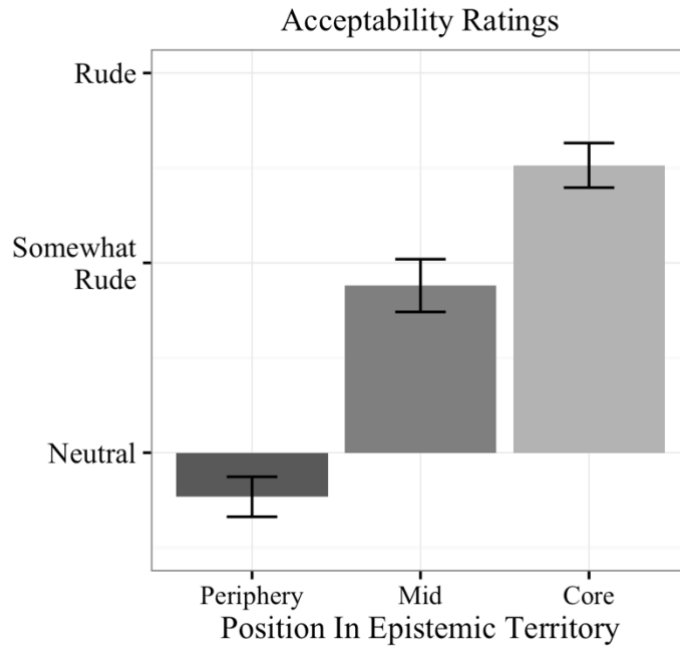


Figure 4.1
The mean acceptability rating of Speaker B's comment according to the position in epistemic territory collapsed across all participants. Error bars represent standard error.

Discussion

Study 1A demonstrates that the social acceptability of disagreeing-with and then correcting someone at least partially depends on the domain in question. It is highly problematic to disagree with claims that someone makes about domains of knowledge that are core parts of their epistemic territory. By definition, this core is composed of knowledge about which an individual has ultimate epistemic authority, so disagreements about this domain necessarily come from a comparatively ignorant position and invariably constitute epistemic trespassing. While slightly more acceptable, disagreements about domains in the

mid part of the epistemic territory were also rated as significantly ruder than neutral. These domains relate to social identity, and, while an individual is still highly likely to have superior epistemic authority over these domains, this is not necessarily the case, since this knowledge is gained from the external world, not from introspection. Still, in the case of casual acquaintances, an intrusion this far into someone's epistemic territory is a trespass. Structurally similar disagreements and corrections in the periphery of an individual's epistemic territory were rated as slightly more polite than neutral. It is not disagreement *per se* that is socially unacceptable – it is disagreement that constitutes epistemic trespassing.

This study leaves open the possibility that acceptability rankings are largely dependent on the domain in question and may have nothing to do with epistemic territory. Perhaps some domains are simply taboo and it is *always* ruder to discuss sexual orientation than to talk of trees. In order to determine whether the acceptability ratings of Study 1A are a function *only* of the domains of knowledge, or whether they might vary depending on extra-linguistic factors (such as the identity or background of the individuals, the relationship between them, the setting of the interaction, etc.), we asked subjects for their opinions in Study 1B.

Study 1B

This study elicited participant ideas about extra-linguistic factors that would change the acceptability of Speaker B's comments.

Materials and Methods

The same participants from Study 1A completed a second task after providing acceptability ratings. Participants were again shown all of the stimuli (on a single page in

random orders) and asked to generate one ‘scenario’ for each conversation that would make Speaker B’s comment more rude and another that would make it more polite. They were told that these scenarios should *not* change the wording of the conversations, the factual accuracy of what was said, or seriousness or tone of voice of the speaker(s). They were given some examples of scenarios that specified personal or professional relationships between speakers (daughter, grandfather, spouse, doctor, mechanic, or coworker) or the speakers’ background and training (scientists, architects, sports fans or residents of a particular town or country). They were instructed to try to generate different scenarios for each interaction. Each participant typed in 64 different scenarios into open-ended text fields.

Coding and Reliability

Each fill-in-the-blank response was hand coded (a total of 5824 responses). They were classified as: (1) those that specified the social relationship between the two parties (e.g. they were married), (2-5) those that upgraded or downgraded the epistemic authority of one of the speakers (statements or evidence that one speaker knew more than the other about a particular domain), (6) those that leveled the epistemic authority of the speakers (e.g. they are both architects), (7) those that manipulated the context of the interaction in other ways (specifying the intention(s) of the speaker(s) or the social/physical setting of the interaction), (8) those that changed the wording of the interaction, and (9) non-answers (e.g. I don’t know). An independent observer coded 25% of the data and Cohen’s Kappa was used to test for inter-rater reliability. Agreement was very high ($k = .938$).

To more closely examine the most common responses, subcategories were created for social and epistemic responses (categories 1-5 from above). Answers that specified social

relationships were subcategorized into: (1) those that reiterated the relationship given in the original background from Study 1A (e.g. acquaintances), (2) those that decreased social distance (e.g. friends, family, couples, neighbors, etc.), (2) those that increased social distance (e.g. strangers), (4) those that established some sort of non-hierarchical institutional relationship between the speakers (e.g. coworkers) and (5-6) those that established an institutional authority dynamic between the speakers (e.g. boss and employee, coach and athlete).

Epistemic answers—those that upgraded or downgraded one speaker’s epistemic authority—were subcategorized as: (1) those that directly asserted a knowledge difference (e.g. Speaker A knows more), (2) those that stipulated which speaker was correct (e.g. Speaker B is right), (3) those that specified a speaker’s profession (e.g. one speaker is a musician or architect), (4) those that dealt with ownership or creation of the domain being discussed (e.g. one speaker owns the dog or baked the cake in question), (5) those that created some manner of epistemic impairment (e.g. one speaker was drunk, senile, forgetful or very young), and—only in cases of upgrades to Speaker B—(6) those that referenced something Speaker A said previously (e.g. Speaker A told Speaker B this last week). An independent coder coded 25% of the data for these subcategories, and Cohen’s Kappa indicated strong agreement ($k = .813$).

Results

Despite instructions not to alter the wording of the interactions, 37 participants consistently provided alternate wording for the conversations in the fill-in-the-blank portion of the study, and their responses were excluded from subsequent analysis. A chi-square test of

goodness of fit was performed on the remaining 54 subjects' responses comparing responses intended to make Speaker B's comment more rude and those intended to make it more polite. It showed that responses were not equally distributed between these two conditions, $X^2(7, N=3456) = 1636, p < .0001$. Most notably, answers that adjusted relative epistemic authority so that Speaker A knew more than Speaker B were almost non-existent in the "More Polite" responses while they made up almost half of the "More Rude" responses. The opposite was true of epistemic adjustments that stipulated that Speaker B knew more than Speaker A, which made up more than half of the "More Polite" responses. Although social relationships were a common response in both "More Rude" and "More Polite" conditions, the types of relationships were notably different (see Table 4.2).

Table 4.1		
<i>Percentages of Different Categories of Participant Responses When Instructed to Make Speaker B's Comment "More Polite" and "More Rude"</i>		
<u>Fill-In-The-Blank Response</u>	<u>"More Polite" Scenarios</u>	<u>"More Rude" Scenarios</u>
Epistemic A > B	0.6	47.1
Epistemic A < B	61.7	5.1
Epistemic A = B	1.3	1.6
Social Relationship	25.9	33.2
Context	9.8	12.8

Note: Upgrading Speaker A" was combined with "Downgrading Speaker B" into the category "Epistemic A>B", while "Downgrading Speaker A" and "Upgrading Speaker B" were combined into the category "Epistemic A<B". "No Answer" responses were left out of the table because of small values.

In order to make Speaker B's comments "More Polite", participants often changed the speakers' relative epistemic authority over the domain in question, typically by upgrading Speaker B's authority (~85% of epistemic responses). This was most often done by giving Speaker B a profession related to the domain, although sometimes accomplished by simply

asserting that Speaker B knew more about the topic, or by stating that Speaker B was correct³. A similar, although less common, tactic for making things more acceptable was downgrading Speaker A's authority (~13% of epistemic responses), typically by asserting Speaker A does not know about the topic, although sometimes by specifying that Speaker A is incorrect, or that their judgment is impaired in some way (e.g. Speaker A is a young child). This last downgrading tactic of 'epistemic impairment' was more common in the peripheral territory position (61 responses) than in the mid territory position (40 responses), and more common there than in the core position (27 responses).

In order to make Speaker B's comments "More Rude", participants typically changed the speakers' relative epistemic authority over the domain in question by either downgrading Speaker B's authority (~50% of epistemic responses) or upgrading Speaker A's (~40% of epistemic responses). Upgrading Speaker A's authority was much more common in 'peripheral' domains (242 responses) than in 'mid' (65 responses) and 'core' ones (54 responses).

³ In 24 cases (all in core territory), Speaker B's statement was made more polite by creating a contradiction between the current claim made by speaker A and something Speaker A had said previously. (If Speaker A says "I like this movie" and Speaker B disagrees, saying "No you don't. You think it's bad", participants made this more polite by saying things like "Speaker A had complained about the film in the past"). In this sense, Speaker B is still granting epistemic authority to Speaker A, but is simply noticing an inconsistency in A's claims. This may be the most acceptable way of challenging a core claim.

Table 4.2				
<i>Percentages of Subcategories for Responses Adjusting Relative Epistemic Authority</i>				
<u>“More Polite” Scenarios</u>	<u>Epistemic A < B</u>		<u>Epistemic A > B</u>	
	<u>Downgrade A</u>	<u>Upgrade B</u>	<u>Downgrade B</u>	<u>Upgrade A</u>
Direct Assertion	10.0	17.4	0.5	0.9
Factual Accuracy	1.4	11.4	-	-
Profession	-	52.1	-	-
Ownership/Creation	-	4.1	-	-
Epistemic Impairment	1.8	-	-	-
A said previously	-	0.5	-	-
Totals (<i>N</i> = 219)	13.2	85.4	0.5	0.9
<u>“More Rude” Scenarios</u>				
Direct Assertion	0.8	2.5	46.5	11.1
Factual Accuracy	-	-	2.9	11.1
Profession	-	7.0	-	8.6
Ownership/Creation	-	-	-	8.6
Epistemic Impairment	-	-	0.8	-
A said previously	-	-	-	-
Totals (<i>N</i> = 243)	0.8	9.5	50.2	39.5

Note: Zero values are indicated with dashes.

Fill-in-the-blank responses that specified the social relationship between parties were also a common tactic to adjust the acceptability of Speaker B’s disagreement. When asked to make Speaker B’s comment more acceptable, participants almost always said Speakers A and B were in a close relationship (family, friends, couples, etc.). In contrast, to make the comment less acceptable, speakers most often created more social distance between speakers (almost always asserting that A and B are strangers), although specifying that the speakers were socially close was also a reasonably common tactic. Institutional relationships appeared far more in the “More Rude” social responses than in the “More Polite” ones, usually where the speakers are of equal rank, or Speaker B outranks Speaker A.

Table 4.3		
<i>Percentages of Subcategories for Responses Specifying Social Relationships</i>		
<u>Category of Relationship</u>	<u>“More Polite” Scenarios</u>	<u>“More Rude” Scenarios</u>
Socially Close	95.1	22.6
Socially Distant	1.6	49.5
Acquaintances	-	5.2
Institutional (non-hierarchical)	2.0	11.3
Institutional (A outranks B)	0.2	0.9
Institutional (B outranks A)	1.1	10.5

Note: Zero values are indicated with dashes. Percentages out of 447 “Social” responses in “More Polite” cases and 574 “Social” responses in “More Rude” scenarios

Discussion

In both “More Rude” and “More Polite” conditions, epistemic adjustments were by far the most common type of scenario provided by participants. This suggests that the relative authority over a domain of knowledge is crucial to determining the social acceptability of disagreement.

The next most common type of scenario provided was specifications of the speakers’ social relationship. Close social relationships were frequently used to make the disagreement more acceptable. It is not clear whether the conversations became more polite *because* of the social relationship (i.e. it is always less rude to disagree with a friend than with a stranger) or because, for some domains of knowledge, being socially close actually creates epistemic authority (i.e. best friends know a great deal more about one another’s movie preferences than strangers do). A lack of relationship (being strangers) was used to make disagreement less acceptable, although, again, it remains unclear whether this rudeness is a function of the social relationship *per se* (i.e. it is rude for strangers to disagree with you) or the epistemic entailments of social relationships (i.e. strangers do not know anything about you).

Close social relationships were still a fairly common response in “More Rude” condition, perhaps because of the epistemic-social overlap, especially in core domains. Families, friends, and couples have a great deal of personal common ground; they know more about one another’s expertise. Perhaps because being socially close entails familiarity with one another’s epistemic territories, close associates are expected to respect territory boundaries that strangers might not have to.

Institutional relationships (typically with Speaker B equal-to or above Speaker A) also appeared a fair amount as scenarios that make the conversations less acceptable. This suggests it is worse for a coworker or boss to disagree with you than it is for you to disagree with your boss (at least about matters not related to work). Since only 1 of the 32 knowledge domains dealt with work, institutional authority is largely independent from epistemic authority in these stimuli. It seems that is relatively unacceptable for someone (like a boss) to conflate the two; epistemic trespassing may be worse when it is ‘protected’ by institutional authority.

This study highlights the tangled overlap between social distance and epistemic authority. This overlap exists far more for core and mid territory positions than for peripheral ones. When the domain being disputed is the species of a tree or the contents of a cocktail (peripheral domains), the relationship between parties has little to do with determining relative epistemic authority. When the domain in question is a person’s beliefs, opinions, pets, or childhood memories (core and mid domains), then friends, family, and partners gain epistemic authority *because* of that closeness. Indeed, friends are essentially experts about each other (Planalp and Garvin-Doxas 1994). Although this overlap cannot be eliminated, Study 2 attempts to compare the relative impact of social and epistemic factors in determining the acceptability of disagreement.

Study 2

This study provided participants with extra-textual information about either the speakers' relationship or relative knowledge in order to compare the impact of these factors on the perceived acceptability of Speaker B's comments.

Materials and Methods

A separate group of 202 participants were recruited through Amazon Mechanical Turk, all with IP addresses in the United States. Participants were shown the same 32 conversations as in Study 1 and given the same task of providing an acceptability judgment for Speaker B's comment in each. Unlike Study 1, each conversation was accompanied by a 'backstory' specifying something about the speaker(s). These backstories were in large part created by the Study 1 participants; they were adapted from the most common fill-in-the-blank responses in Study 1B. Participants were given 30 minutes to complete the task and did so in an average of 16.5 minutes. Participants were excluded if they attempted the study more than once, failed to answer attention-check questions correctly⁴, or took less than 6 minutes total (5 seconds per question) to complete the study, leaving 167 participants data for analysis.

Each of the 32 conversations was paired with four backstories, two of which specified the speakers' relative epistemic authority and two of which specified their social relationship. Epistemic backstories were designed to make the conversations less acceptable by upgrading Speaker A's authority (it is rude to correct an expert), or more acceptable by upgrading Speaker B's authority (it is okay to be corrected *by* an expert). Social backstories likewise

⁴ There were two attention-check questions that were visually similar to the others (AB: I think you're falling asleep. KL: No I'm not. I'm reading all the questions carefully.) and in the place of the 'backstory' were instructions (If you're reading carefully, click "Very Polite" as the answer to this question.).

were designed to make things either more or less acceptable by specifying that the speakers were either best friends or strangers. Although each participant saw all four types of backstory, a single participant only saw two backstories for a given stimulus (one social and one epistemic, which were both intended to either increase or decrease acceptability). Each subject made 64 acceptability judgments on the same 7-point scale used in Study 1A. Conversations were presented in stratified random order (so that all 32 conversations were seen once before being seen a second time with different backstories). Only one conversation was presented on screen at a time.

Results

Both the social and epistemic backstories affected acceptability judgments, although this effect varied across different territory positions. We conducted a repeated measures 3x4 Analysis of Variance with acceptability rating as a function of position in epistemic territory and backstory. There was a main effect of position in epistemic territory $F(2,332) = 331.4, p < .0001$, similar to the one found in Study 1A, where disagreements about peripheral domains ($M = -0.07, SD = 1.07$) were more acceptable than those about mid domains ($M = 0.49, SD = 1.28$), which were in turn more acceptable than those in core domains ($M = 1.12, SD = 1.10$). There was also a main effect of backstory, $F(3,498) = 347.4, p < .0001$. Cases where the speakers were strangers ($M = 1.33, SD = 0.99$) or Speaker A was more knowledgeable ($M = -1.14, SD = 0.94$) were judged to be far ruder than cases where Speaker B was more knowledgeable ($M = -0.27, SD = 1.14$) or the Speakers were best friends ($M = -0.17, SD = 0.98$), a pattern similar to the one found in Study 1B. These significant main effects were

qualified by an interaction between territory position and backstory, $F(6,996) = 78.3, p < .0001$. The backstories affected different territory positions differently.

To better understand what was driving this interaction, we ran planned pairwise comparisons for differences between social and epistemic backstories designed to make things more acceptable (where the Speakers are best friends or Speaker B is knowledgeable), and those designed to make things less acceptable (where the Speakers are strangers or Speaker A is knowledgeable) across the territory positions. These tests were conducted using a Bonferroni adjusted alpha level of .0083 per test (.05/6).

In peripheral knowledge domains, relative epistemic authority had a greater effect on perceived acceptability than social relationship, able to push the acceptability of a given conversation farthest in either direction. Peripheral cases where Speaker B was more knowledgeable ($M = -0.82, SD = 1.11$) were rated as marginally more polite than cases where the speakers were best friends ($M = -0.68, SD = 0.98$), although this effect did not reach significance with the corrected alpha level, $t(166) = -2.53, p = .013$. Peripheral domains paired with stories saying Speaker A was more knowledgeable ($M = 0.78, SD = 1.30$) were rated as significantly ruder than cases where the speakers were strangers ($M = 0.43, SD = 1.06$), $t(166) = 4.53, p < .0001$.

In mid territory domains, the effects of epistemic authority and social relationship differed between backstories that were designed to make the conversations more or less acceptable. Cases where Speaker B was more knowledgeable ($M = -0.75, SD = 0.10$) were rated significantly more polite than cases where the speakers were best friends ($M = -0.11, SD = .09$), $t(166) = -10.50, p < .0001$. This pattern reversed with backstories designed to make things less acceptable, where social manipulations had a larger impact. Cases where the

speakers were strangers ($M = 1.64, SD = 1.12$) were judged to be less acceptable than cases where Speaker A was more knowledgeable ($M = 1.16, SD = 1.32$), $t(166) = -6.88, p < .0001$.

In core territory domains, social relationships had a generally greater effect on acceptability judgments than relative epistemic authority. Cases where the speakers were best friends ($M = 0.29, SD = 1.33$) were rated as significantly more polite than cases where Speaker B was more knowledgeable, ($M = 0.76, SD = 1.51$), $t(166) = 6.36, p < .0001$. Cases where the speakers were strangers ($M = 1.92, SD = 0.99$) were rated as significantly ruder than cases where Speaker A was more knowledgeable ($M = 1.49, SD = 1.21$), $t(166) = -8.54, p < .0001$.

In virtually all cases, the acceptability ratings were notably different from the ‘baseline’ judgments for the same stimuli in Study 1A where all participants were said to be casual acquaintances.

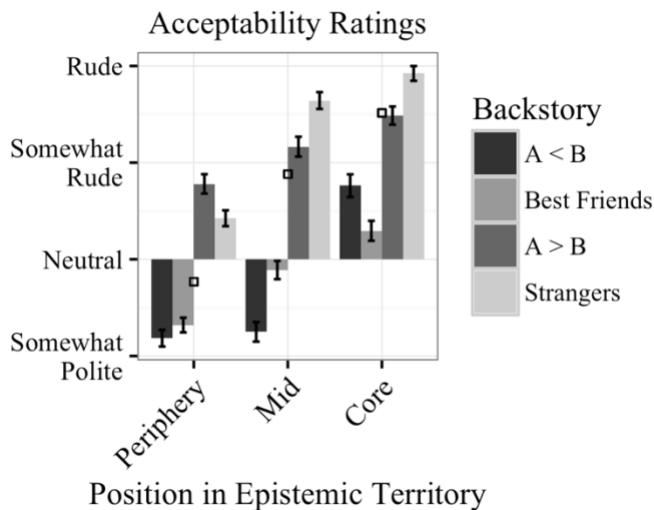


Figure 4.2

Average acceptability ratings of Speaker B's comment by backstory and position in epistemic territory. Points represent the average acceptability rankings for each territory position from Study 1A, where all speakers were said to be 'casual acquaintances'. Error bars represent standard error.

Discussion

The same stimuli from Study 1A had dramatically different acceptability judgments when paired with various backstories that specified the social relationship or relative epistemic authority between speakers. This demonstrates that the social acceptability of disagreement and correction is not dependent on the words of an utterance alone.

The relative acceptability of disputing core, mid, and peripheral domains of knowledge maintained the general pattern from Study 1A, where disagreements are increasingly unacceptable as they become closer to the core of epistemic territory. The general effects of the backstories were similar to those suggested by Study 1B, where close relationships or Speaker B's authority made disagreement more acceptable and a lack of relationship or Speaker A's authority made disagreement less acceptable.

The comparative impact of social and epistemic backstories differed by territory position. In peripheral domains, where domains have little to do with a speaker's identity, specifications of relative epistemic authority were able to push judgments farther from Study 1A baseline in both directions than information about the speakers' relationship (although the effect is marginal in the case of best friends vs. upgrades to Speaker B). In these cases, epistemic authority and social relationship do not overlap, and it seems epistemic authority matters more for determining the acceptability of disagreement.

In mid territory domains, where knowledge is *about* an individual's social identity, the comparative impact of social and epistemic is muddier. Epistemic adjustments that increased Speaker B's authority were able to make disagreement more polite than neutral (a flip from the 'baseline' judgments of Study 1A) and more polite than saying the Speakers were best friends. Some of these 'epistemic' adjustments were also social (e.g. Speaker B is Speaker

A's grandmother and is thus entitled to know about Speaker A's ethnicity), while others were not (e.g. Speaker B is a dog breeder and is thus entitled to know facts about Speaker A's dog). The social backstory of the speakers' best friendship also likely entails a bit of an epistemic upgrade in some mid territory domains. Despite this overlap, it seems that disagreement about mid territory domains can most effectively be made more acceptable by upgrading Speaker B's epistemic authority.

In mid territory domains, however, social backstories were more effective than epistemic ones at making disagreement more unacceptable: saying the speakers were strangers made things more rude than upgrading Speaker A's authority. This may be because, in these domains, specifying that Speaker A knows more about the domain is a bit redundant, since this is personal knowledge (ethnicity, job, family, etc.) that individuals are typically assumed to have superior knowledge about. Saying the parties were strangers likely had a larger impact than reaffirming Speaker A's epistemic authority because it was more of a departure than the typical status quo.

In core domains, social backstories were more effective than epistemic ones at pushing acceptability judgments toward the extremes. Saying the speakers were best friends made things more acceptable than saying Speaker B was knowledgeable. No upgrades to Speaker B in the core domain can ever actually give Speaker B more epistemic authority than Speaker A, since knowledge about subjective experience is by definition only accessible to the individual. However, friendship might grant *some* kind of entitlement to know about a person's inner states, in addition to making disagreement less rude generally. Since Speaker A's authority is already effectively at ceiling in these domains, upgrading it likely didn't alter the relative

authority much. Being strangers, however, might have done so, since strangers have *no* access to one another's internal states.

Overall, Study 2 shows that both social distance and epistemic authority play a role in determining the social acceptability of disagreement. In peripheral domains, where these considerations are largely separate, epistemic authority matters most. In core domains, where adjustments to epistemic authority are near impossible, social considerations matter most. In mid domains, epistemic adjustments can make things most polite, whereas social ones can make things most rude. This pattern suggests that there is an effect of epistemic authority above and beyond the effect of having a close social relationship decreasing the rudeness of disagreement in general.

Study 3

This study examines how relative epistemic authority influences acceptability judgments within peripheral territory domains.

Materials and Methods

A separate group of 375 participants were recruited through Amazon Mechanical Turk, all with IP addresses in the United States. Participants were given the same acceptability judgment task as in previous studies, but each participant judged only a single conversation. Participants were given 5 minutes to complete the task did so in an average of 73 seconds. Each participant saw one of three conversations, two of which were drawn from the peripheral stimuli from Studies 1-2 (sports and art), and one of which was new (piano). Speakers A and B (named Alan and Bill) disagreed about which Tigers player was the highest

scoring of all time, what type of paint was used to create a given painting, or whether or not a given song was meant to be played with foot pedals.

For each of these conversations, a backstory was provided which contextualized the interaction and specified the years of experience that speakers A and B had with the domain in question. There were five different conditions specifying their relative years of experience: 10-to-0, 5-to-2, 5-to-5, 2-to-5, and 0-to-10. For example:

*Alan and Bill go to a music shop together and notice a piano. Alan has been playing piano for 5 years and Bill has been playing for 2 years. Alan sits down at the piano and plays the first few notes of a song. Bill makes the following comment:
Bill: That song isn't supposed to be played with foot pedals.*

The three different domains were all selected from the peripheral domains of epistemic territory, yet there is still a gradient among them. Their relative centrality may depend in part on the effort required to gain the knowledge in question. Hockey is the likely most peripheral of the three – acquiring sports trivia about one's favorite team is typically a passive activity that happens after years of watching the team play. Art is likely slightly more central, since, in the art scenario, one or both of the speakers have studied art history for some years. This is a more active pursuit than gradually assimilating sports trivia. In the piano scenario, the first turn-at-talk is actually a turn-at-play. Speaker B is not merely disagreeing with Speaker A's claim, they are correcting Speaker A's physical action. Gaining the embodied skill of playing piano is the most effortful and likely the most central of the three domains.

Results

There were significant differences between the three knowledge domains, as well as between the five levels of knowledge difference. We conducted a 3x5 Analysis of Variance

with acceptability rating as a function of relative experience level and question domain. This test yielded a main effect of question domain, $F(2, 369) = 24.36, p < .0001$, such that the disagreement about piano ($M=0.78, SD=.99$) was rated as ruder than the disagreement about art ($M = 0.37, SD = 1.04$) which was in turn was rated as ruder than the disagreement about hockey ($M = -0.064, SD = .83$), which was actually rated slightly more polite than neutral.

There as also a main effect of relative experience level, $F(1,369) = 11.82, p < .001$, such that the more experience Speaker A had over Speaker B, the less acceptable Speaker B's correction was rated: $A \gg B$ ($M=0.64, SD=.99$), $A > B$ ($M=0.47, SD=1.0$), $A=B$ ($M=0.35, SD=.96$), $A < B$ ($M=0.11, SD=1.0$), and $A \ll B$ ($M=0.23, SD=1.03$). There was a slight reversal in this last level of relative experience.

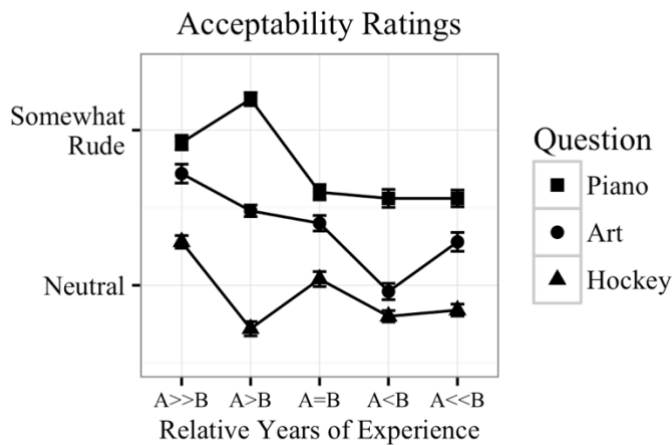


Figure 4.3
Average acceptability ratings by relative years of experience and knowledge domain. Error bars represent standard error.

Discussion

Study 3 demonstrates that there is variation in the perceived acceptability of disagreement within peripheral domains of epistemic territory. The main effect of question

domain upholds the pattern from previous studies, where disagreement is judged to be less acceptable as the domains become more central. The subtle distinctions between peripheral domains suggest that there are more than three layers of epistemic territory, which may ultimately be more analogous to the rings of a fallen tree than to those of an archery target. The territories of individuals may be likewise unique, where domains totally peripheral to one person may be considered central to another. The distinctions between passive, active, and embodied knowledge acquisition in the domains tested in Study 3 suggest that the effort put into obtaining knowledge might be an important factor in determining a domain's centrality for a given individual.

In relatively peripheral knowledge domains that are not explicitly yoked to a person's inner states or social roles, experience and expertise drive epistemic authority. A novice correcting an expert is less acceptable than the opposite. The main effect of relative experience confirms this; Speaker B's disagreement was judged as less acceptable the more years of experience that Speaker A had over them. This was only true up to a point – there was a slight reversal in cases where B had no experience at all compared to Speaker A's ten years. This may be a result of a perception that 'newbies' deserve some cushion upon entering a new domain. Experts, while in full possession of epistemic authority, may be expected to avoid criticism of extreme novices.

Study 3 hints at the complexity of epistemic calibration for conversational participants. In order to avoid inadvertently offending their listeners, speakers must attend to the time and effort that others have put into acquiring knowledge in various fields and factor this into their style of address.

Summary of Findings

Study 1A demonstrated that the acceptability of disagreement varies according to the centrality of the domain of knowledge being disputed. Domains such as beliefs, plans, feelings, and opinions (subjective experiences) are core to an individual's epistemic territory. Domains such as nationality, profession, family, and possessions are in some sense less 'core' to an individual, since knowledge about these domains requires interaction with the outside world. Disagreeing with claims individuals made about these domains is considered relatively unacceptable. Disagreements about domains which are generally peripheral to an individual's identity (such as species of trees, styles of architecture, and ingredients of cocktails) are not considered to be rude at all, and were rated on average to be slightly more polite than neutral.

Study 1B demonstrated that people have relatively similar judgments about extra-linguistic factors that influence the acceptability of knowledge disputes. When asked to generate free-form scenarios that would alter the acceptability of the interactions from Study 1A, the most common strategies were specifying the social relationship between speakers, their relative epistemic authority, or various contextual factors of the interaction (such as the social or physical setting). Stating that the parties were in a socially close relationship (best friends, couples, family members, etc.) was often used to make disputes more acceptable, whereas statements about a lack of relationship (strangers) were frequently used to make the disputes less acceptable. Information that altered the relative epistemic authority of the parties in a way that placed Speaker A above Speaker B (either by giving Speaker A more knowledge to support their claim or by giving speaker B less knowledge with which to dispute that claim) were often used to make disputes less acceptable. Information that altered the relative

epistemic authority in the opposite direction, placing Speaker B above Speaker A, was provided to make interactions more acceptable.

Study 2 demonstrated that the perceived acceptability of a knowledge dispute can change as a result of knowing the social relationship and/or relative epistemic authority of the disagreeing parties. In almost all cases, providing backstories changed acceptability judgments dramatically from the ‘baseline’ values established in Study 1A. Being best friends made disagreement more acceptable while being strangers did the opposite. Upgrading Speaker B’s authority made things more acceptable while upgrading Speaker A’s authority did the opposite. The relative impact of these manipulations differed according to the centrality of the knowledge domain being discussed. In peripheral domains, where there is little overlap between social relationship and epistemic authority, expertise mattered more than friendship for changing acceptability. In the ‘core’ domain, where epistemic authority overlaps a great deal with social relationships, being socially close was more effective at making things more polite and social distance was more effective at making things more rude. In the mid bull’s eye domain, the effects were mixed, so that epistemic authority was more effective at making things more polite while social distance was more effective at making things more rude.

Study 3 demonstrates that there are fine grain distinctions even within the peripheral layer of the epistemic bull’s eye. The relative number of years the participants invested in acquiring knowledge, as well as the relative effort of knowledge acquisition both impacted the perceived acceptability of disagreement.

Overall Discussion

Previous literature points to some domains of knowledge that may be expected to fall within an individual's epistemic territory—it provides a list of territorial features. This collection of studies surveys the epistemic landscape and begins to draw a map. Epistemic trespassing is not equally offensive across different knowledge domains. In ways very similar to actual trespassing, the offense is graded: crossing another's property line is not as severe an offense as entering another's bedroom. And, like actual trespassing, the severity of the offense is in-part determined by the relationship between the trespasser and trespassed-upon. A good friend entering one's home uninvited may be unwelcome, but a stranger doing so may result in a phone-call to the police. This paper demonstrates that there is a gradient texture to epistemic territory.

One limitation of this work is the inevitable overlap between close social relationships and epistemic authority in domains that pertain to an individual's identity (core and mid territory positions). Having a relationship with someone *creates* epistemic authority over features of their life (Planalp and Garvin-Doxas 1994). Indeed, having a social relationship is essentially an ongoing process of expanding personal common ground. Although Study 2 attempts to compare the relative impact of social and epistemic changes between participants, this overlap prevents ever fully teasing them apart.

Although this overlap cannot be eliminated, it hints at another dimension of knowledge calibration that warrants further inquiry: there is a paradox that results from close social relationships. On one hand, increasing closeness creates increasing access and rights to another's epistemic territory, so friends have greater rights to make comments about domains in one another's territories (as seen in Study 2). On the other hand, this increased knowledge

creates obligations: people in close relationships are held responsible for keeping track of their personal common ground. In Study 1B, participants posited socially close relationships between the speakers approximately 23% of the time in order to make things more rude. This is perhaps because friends are familiar with one another's epistemic territories and are thus obliged to be respectful of territory boundaries in a way that strangers are not. There are likely negative social ramifications of failing to fulfill a responsibility to know.

Another dimension entangled with the acceptability of epistemic trespassing is institutional authority. Participants in Study 1B often specified some manner of institutional hierarchy between speakers, most often saying Speaker B is Speaker A's boss in order to make Speaker B's disagreement less acceptable. This suggests that unwarranted blending of institutional and epistemic authority is problematic, but a detailed examination of this interaction is a topic for future work.

Another future direction suggested by the results from Study 1B is the idea of 'epistemic impairment'. If someone is drunk, senile, overly emotional, or very young, they may *not* actually have authority over core territory domains. In these cases, it may be far more acceptable to disagree with claims they make about knowledge to which they would typically be entitled.

Together, these studies demonstrate that the epistemic calibration that conversational participants are required to make in order to engage in successful interaction are complex and nuanced. In the midst of parsing sentences and mapping meaning to referents, individuals must also dynamically track their relative epistemic authority over each domain being discussed. Certainly they are gauging whether the other party will understand them, but they

must also calculate whether they are intruding into the epistemic territory of their conversational partner.

Calibrating another's territory likely requires a great deal of cognitive effort. It is not enough to memorize a heuristic of the core and mid territory domains and avoid talking about them – these domains are not like the taboo on discussing “religion and politics” in polite conversation. *Asking* about a core domain may actually be a polite conversational maneuver, while *telling* someone about central domains of their territory is demonstrably offensive. There is simply a requirement to be appropriately deferential to participants who know more about a given topic. This series of studies have shown that participants orient to the potential pitfalls of epistemic trespassing to a greater extent than has been previously shown

Chapter 4, in full, is a reprint of the material as it appears in *Journal of Memory and Language*. Bristol R. & Rossano, F. (2020). Epistemic trespassing and disagreement. *Journal of Memory and Language*, 110. The dissertation author was the primary investigator and author of this paper.

Appendix

Stimuli used for Studies 1 and 2.

Territory Position	Knowledge Domain	Text	A>B Epistemic Backstory	B>A Epistemic Backstory
Core	Opinions	NE: I really like that movie. RZ: No you don't. You think it is bad.	NE laughed out loud when seeing the movie in theaters.	RZ works in the movie industry.
Core	Emotions	QK: I'm feeling stressed today. GJ: No you're not. You feel bored.	QK has an important deadline coming up.	GJ is QK's therapist.
Core	Physical Feelings	WD: My ankle has been hurting all day. EQ: No it hasn't. Your ankle feels numb.	WD has been limping all day.	EQ is WD's doctor.
Core	Expectations	AY: I expect that show will be canceled after one season. VL: No you don't. You expect it to be on TV for years.	AY just read a negative review of the show.	VL is a TV producer.
Core	Beliefs	YF: I believe there is life on other planets. RG: No you don't. You believe earth is the only planet with life.	YF just read an essay about the possibility of alien life.	RG is a NASA scientist.
Core	Desires	KR: I want to take a nap. MT: No you don't. You want to stay awake.	KR barely slept the previous night.	MT is KR's psychologist.
Core	Orientation	JG: I'm bisexual. PW: No you're not. You're gay.	JG has recently gone on dates with both men and women.	PW is an LGBTQ expert.
Core	Plans	RF: I'm planning to move to a new apartment in the spring. MZ: No you're not. You're planning to keep living at your current place.	RF has been going to see potential new apartments almost every day for weeks.	MZ is a real estate agent.
Mid	Ethnicity	BN: I am Chinese. AQ: No you're not. You're Korean.	BN just returned from a family reunion in China.	AQ is BN's parent.
Mid	Nationality	FH: I'm from Italy. BL: No you're not. You're from Portugal.	FH is looking at their passport.	BL is FH's grandparent.
Mid	Job	AG: It's been really busy at work this week. SE: No it hasn't. The business is in a lull.	AG has been at work every day this week.	SE is the owner of the business.
Mid	Family	MJ: My sister is obsessed with that band. BD: No she's not. She doesn't even like them.	MJ just talked their sister about her music preferences.	BD is married to MJ's sister.
Mid	Pets	KX: My dog is a Lakeland Terrier. UA: No she isn't. She's a Wheaten Terrier.	KX is a professional dog breeder.	UA is a professional dog breeder.

Mid	Schedule	FJ: I have to go to a meeting at 2pm. BH: No you don't. You don't have to be anywhere until 5.	FJ is looking at their calendar.	BH is FJ's secretary.
Mid	Possessions	RH: My computer is overheated. HS: No it isn't. It has a virus.	RH is a computer technician.	HS is a computer technician.
Mid	Memories	RD: When I was little, I was scared of heights. PH: No you weren't. You liked to look down from way up high.	RD had just read from their childhood journal.	PH is RD's older sibling.
Periphery	Books	EM: This book was published in 1954. XA: No it wasn't. It was published in 1960.	EM is the author of the book.	XA is the author of the book.
Periphery	Art	PB: That's an oil painting. MP: No it's not. It's done with acrylic paint.	PB has a degree in art history.	MP has a degree in art history.
Periphery	Geography	LO: The main street in Rubensville is called Orchard Avenue. ZL: No it's not. It's called Cyprus Lane.	LO was born and raised in Rubensville.	ZL was born and raised in Rubensville.
Periphery	Cocktails	SG: That cocktail is made with gin. KQ: No it's not. It's made with vodka.	SG is a professional bartender.	KQ is a professional bartender.
Periphery	Cake	SP: This cake has buttercream frosting. KR: No it doesn't. It has cream cheese frosting.	SP is a professional baker.	KR is a professional baker.
Periphery	Time	HP: That clock is off by 2 minutes. QA: No it's not. It's right on time.	HP has just looked at the website for the world clock.	QA has just looked at the website for the world clock.
Periphery	Weather	FR: It's supposed to rain tomorrow. MK: No it's not. It's supposed to snow.	FR is a meteorologist.	MK is a meteorologist.
Periphery	Sports	KG: John Howerton is the highest scoring player that The Tigers have ever had. LH: No he's not. Peter Farthing scored more.	KG is a huge Tigers fan.	LH is a huge Tigers fan.
Periphery	Restaurant	RG: Today is taco day at Rosie's Restaurant. TD: No it's not. Today they have soup.	RG just came from having lunch at Rosie's.	TD just came from having lunch at Rosie's.
Periphery	Music	MB: This song is by the band Chance. LM: No it's not. It's played by Old Cross.	This is MB's all-time favorite song.	This is LM's all-time favorite song.
Periphery	Clothing	AP: Those shoes are sold online. GH: No they're not. They are only sold in specific stores.	AP works for the shoe company.	GH works for the shoe company.

Periphery	Trees	BH: That's an elm tree. CM: No it's not. That's an oak tree.	BH is a botanist specializing in forestry.	CM is a botanist specializing in forestry.
Periphery	Birds	PF: That bird is a dove. JL: No it's not. It's a pigeon.	PF is an avid bird watcher.	JL is an avid bird watcher.
Periphery	Movies	JE: The new superhero movie comes out next month. SC: No it doesn't. It comes out in two months.	JE works at the movie theater.	SC works at the movie theater.
Periphery	Architecture	HC: That house is a good example of Victorian architecture. PL: No it's not. That house is Tudor style.	HC is a trained architect.	PL is a trained architect.
Periphery	Town Construction	VK: They're going to build a new library on the vacant lot. DM: No they're not. They're going to build apartments.	VK is a construction worker for the project.	DM is a construction worker for the project.

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CONCLUSION

Summary of Findings

Conversational participants display an orientation to multiple social norms about discussing and negotiating relative epistemic authority. Participants employ strategies to comply with these norms and sanction both suspected and obvious violations of norms when they occur. This dissertation identifies three related norms: that task-based collaboration should occur across a shallow epistemic gradient, that an individual's assumed epistemic stance should match underlying epistemic status (epistemic felicity), and that participants should address one another across an epistemic gradient that is in accordance with their relative epistemic authority. Across four chapters and utilizing several types of data, this dissertation demonstrates behavior which both reflects and reinforces these norms.

Chapter 1 presents evidence that, while collaborating with strangers on a task involving a domain relatively peripheral to epistemic territory, participants prefer to present themselves as epistemic peers. While working together on a task that required movie knowledge, participants demonstrated an orientation to *both* K+ and K- positions being problematic. This may have been due to cross-cutting demands placed on participants in the unique setting of the experiment. Pressure to get answers correct on the task at hand created an incentive for participants to claim K+ position while competing pressure to avoid being held accountable for any incorrect task answers created an opposing incentive to claim K- position. There were additional social pressures to contribute equitably to the experimental task and affiliate with one's experimental partner, which combined with the other pressures to create an emergent preference for a shallow epistemic gradient. Participants very often mirrored one another's epistemic stances.

Chapter 1 also presents evidence that participants are generally adept at gauging their relative epistemic authority. A survey given after the interaction showed that participants in this study were in agreement about their relative epistemic authority the majority of the time. (63%). Use of the word “know” to make task-relevant claims seems to have been particularly effective at communicating epistemic authority; the frequency of an individual’s use of this word significantly correlated with the amount of dyadic agreement that they were the more knowledgeable party, and inversely correlated with dyadic agreement that they were the less knowledgeable party. The post-task survey indicated that, even in cases where parties were not in total agreement about their relative authority, they were typically disputing the *existence* of an epistemic gradient, not which side of it they belonged on: cases where one party believed there to be some manner of epistemic gradient and the other party believed that they and their partner were epistemic peers were the next most frequent survey response (35%). This pattern was perhaps enhanced by the generally shallow gradients displayed by the parties during the interaction. Survey responses where participants were in overt disagreement about which of them was K+ or K- were quite rare (3%), another indication of conversationalists’ general skill at calibrating others’ knowledge as well as a suggestion of the rarity of explicit epistemic conflict.

Data from Chapter 1 also hints at a topic explored in more depth in Chapter 2: the generally off-record nature of epistemic challenges. Disagreement and conflicts were rare in the interaction, making up less than 1% of total utterances. Only a few of these were overt disagreements, while many of them were questions whose intent was open to interpretation (e.g. asking “really?” after a task-relevant claim was made). Keeping challenges off-record helps both parties to save face throughout the confrontation.

Chapter 2 explores changes made to epistemic stance in ordinary conversation between close friends. Changes in epistemic stance appear to be motivated by noticed incongruities between the epistemic stance expressed and the underlying epistemic status (i.e. violations of the norm of epistemic felicity). This motivation seems to underly both changes made within a single turn at talk and unprompted by a co-participant and changes made across multiple turns at talk following prompting by a co-participant. The pattern of changes in stance closely resembles the well-documented pattern of *repair* in conversational interaction. The suspected stance-status mismatch is analogous to the *trouble source*, and the subsequently adjusted stance is analogous to the *repair-outcome*. In cases where a co-participant prompts the change in epistemic stance, this prompting is analogous to the *repair initiation*.

Notable differences between repair of epistemic stance and more classical instances of repair (i.e. of issues with hearing, speaking, or understanding) include the dispreferred nature of the repair outcome as well as the off-record quality of the repair initiation. The markers of dispreference present in repair outcomes (e.g. delays, re-starts, accounts, and apologies) are indicative of the problematic nature of epistemic felicity violations. Misrepresenting epistemic status is, in some sense, lying, and individuals changing their stance must provide explanation as well as clarification. Accusing someone of lying is itself a problematic action. The ambiguity of repair initiation benefits both the initiator (who is not accountable for having made an accusation) and the trouble source speaker (who is not accountable for having misrepresented their epistemic status). Challenges to known or suspected violations of epistemic felicity reinforce the norm.

Chapter 3 examines narratives exchanged between close friends about prior instances of epistemic trespassing. Such events are salient identity-threatening violations of the social norm of respecting others' expertise in interaction. Speakers appear to share narratives about these events in order to recruit listener assistance with an after-the-fact sanctioning of the trespassing party and reification of the speaker's threatened identity. The extensive use of direct reported speech and depiction gives listeners enough access to license strong emotional reactions. The generally mocking quality of the depictions, displays of embodied negative affect, and explicit insults vilify the trespassers and signal to listeners that these characters are the antagonists of the tale. Narrators often give explanations of why they have superior epistemic authority over the topic than the trespassing third party did and directly address the absent party with second person pronouns, sanctioning their behavior. Listeners both react-to and assist-in these narratives, displaying shock and surprise at reports of the trespasser's behavior and approval at the speaker's sanctioning. Listeners endorse the speaker's perspective and validate their claims of authority over the knowledge in question, reifying parts of the speaker's identity tied to this knowledge.

Chapter 4 presents crowd sourced social judgements of the relative social acceptability of various acts of epistemic trespassing. The patterns in responses suggest that there is a well-understood hierarchy to knowledge domains within epistemic territory. The acceptability of disagreement depends a great deal on relative expertise but is also impacted by the relationship between epistemic parties. For more peripheral domains, epistemic authority tended to be a larger factor in social acceptability while in more central domains, social relationship had a greater impact on acceptability judgements. In core domains in particular, social relationships and epistemic authority are inevitably intertwined, since close associates

are also essentially experts on one another. In peripheral domains, time and effort put into knowledge acquisition also affect the acceptability of disagreement. The consistency of participant judgements suggests that there are social norms surrounding the acceptability of disagreement that reflect both social and epistemic considerations.

The everyday conversational use of language entails a huge amount of cognitive effort and reflects nuanced social and situational considerations. In the same way that language users display knowledge of their language's grammar through utterances but may be unable to make a declarative list of the rules they follow, conversational participants display knowledge of epistemically related social norms that may oftentimes escape conscious awareness. This dissertation makes explicit several normative patterns in the ways that authority over knowledge is expressed and contested in everyday interaction.

Limitations

This dissertation attempts to balance considerations of control and ecological validity by employing multiple methods that range along the continuum of scientific methods from observation to experimentation. Nevertheless, there are many features of the phenomena investigated that were not captured by these methods or analyses.

Although some features of nonverbal interaction were considered in Chapters 1-3, most of the analysis in this dissertation is done on spoken utterances. Epistemic status can be expressed through nonverbal resources as well and such expressions are likely to have escaped the analysis presented here. This is especially true in Chapter 1, where participants' physical manipulation of the stimuli cards carried heavy epistemic significance. For instance, participants sometimes monopolized access to some of the stimuli cards by holding them in

hand or orienting them on the table so the text was upside down for their partner. They often silently suggested pairings by moving cards on the table or expressed hesitancy about a suggestion by holding a lingering finger on a positioned match. Participants also communicated through facial expression and eye gaze. Unfortunately, the camera position and resolution coupled with the position of participants and size of text on stimuli cards made detailed analysis of these sorts of epistemic negotiations infeasible to investigate in detail. Linguistic utterances are a significant source of epistemic claims, but by no means the only semiotic resource available to participants. By focusing on spoken language, the analysis within this dissertation is necessarily incomplete.

Another significant limitation of the studies presented here is that they are drawn almost exclusively from the behavior of W.E.I.R.D. participants (Western, Educated, Industrialized, Rich, and Democratic) (Heinrich et. al., 2010). The corpus of conversation between friends used for Chapters 2 and 3 was comprised exclusively of native English speakers living in Oregon. The SONA participants in Chapter 1 were all UC San Diego undergraduate students, although many were non-native English speakers with home countries outside of the United States. The Mechanical Turk participants in Chapter 4 had IP addresses in the United States but their language backgrounds and countries of origin are unknown. The data presented in this dissertation thus represents a narrow portrait of human behavior. Cultural attitudes towards ownership over knowledge likely differ, and the “epistemic bullseye” may have different or differently positioned layers for people accustomed to different sets of social norms.

This dissertation is also limited by only considering English conversation. The structural affordances of languages themselves are variable and there are different norms that

accompany uses of language-specific epistemic resources. For instance, the final particle *yo* in Japanese has been shown to be used in defense of epistemic authority (Hayano, 2011). Users of languages that have features like grammatical evidentiality or honorific must orient to felicity conditions for their use, which almost certainly interact with considerations of epistemic authority. Although the norms of knowledge expression in conversation exposed in this dissertation likely differ in other cultures and in other language groups, it seems likely that a common element of human interaction is the presence of *some* set of normative expectations regarding the expression of knowledge in conversational interaction.

A further limitation of this dissertation is that it is exclusively focused on dyadic interaction which is not representative of human interaction at large. The epistemic considerations with three or more interacting parties become even more complex for participants. Speakers have to calibrate utterances to multiple parties at once. This important component of epistemic navigation is left unstudied in the preceding chapters.

Future Directions

In addition to closing some of the gaps presented by these limitations, future directions of this work could consider implications and extensions of these findings for education and/or social justice.

Pedagogical contexts make accurate expression of epistemic status especially important, but these contexts also present unique challenges to epistemic felicity. Students may feel a pressure to know certain information and adopt a stance higher than their status to help them to save face but doing this may present a barrier to learning. Teachers may wish to combat this possibility by addressing all students as if they are in a low K- position, lowering

the social pressure to possess certain knowledge. Yet, this strategy may result in addressing some or many students with a stance much lower than their actual status, something Chapters 3 and 4 suggest can be offensive. Pedagogical contexts present an intensified version of epistemic considerations inherent in multi-party interaction, since identifying and altering epistemic status of participants is largely the point of exchanges. It may be that frequent declarations of instructor agnosticism of student knowledge states (e.g. “I’m not sure whether you’re familiar with this or not”) can mitigate the double edged sword of recipient design for teachers. Future empirical work can investigate how different epistemic gradients present in instructor utterances influence student attitudes and outcomes.

Another relevant extension of this work would be exploring how patterns of knowledge expression and negotiation interact with social injustices. Certain identity groups are able to occupy large swaths of epistemic territory without fear of intrusion while others must constantly defend smaller parcels of knowledge space against trespassers. The recent rise in terms like “mansplaining”, “whitesplaining”, “straightsplaining”, and “cissplaining” suggest that the idea of epistemic trespassing is embedded in today’s zeitgeist. These terms essentially refer to epistemic trespassing perpetrated by identity groups with privilege and power into the epistemic territories of identity groups without. In Chapter 3, the multiple narratives about epistemic trespassing related to ethnicity involved trespassing into the territory of minority groups that have historically been victims of racism and discrimination. Epistemic trespassing can certainly be a one-off incident, but it can also become a pattern and a source of injustice at a societal level (Fricker, 2007). Future work can focus specifically on certain identity groups and empirically examine how attitudes towards so-called “-splaining” differ depending on the power and privilege of both the trespasser and trespassed-upon.

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