

**Interviewing Practices, Conversational Practices, and Rapport:
Responsiveness and Engagement in the Standardized Survey Interview**

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Abstract

“Rapport” has been used to refer to a range of positive psychological features of an interaction -- including a situated sense of connection or affiliation between interactional partners, comfort, willingness to disclose or share sensitive information, motivation to please, or empathy. Rapport could potentially benefit survey participation and response quality by increasing respondents’ motivation to participate, disclose, or provide accurate information. Rapport could also harm data quality if motivation to ingratiate or affiliate caused respondents to suppress undesirable information. Some previous research suggests that motives elicited when rapport is high conflict with the goals of standardized interviewing.

We examine rapport as an interactional phenomenon, attending to both the content and structure of talk. Using questions about end-of-life planning in the 2003-2005 wave of the Wisconsin Longitudinal Study, we observe that rapport consists of behaviors that can be characterized as dimensions of responsiveness by interviewers and engagement by respondents. We identify and describe types of responsiveness and engagement in selected question-answer sequences and then devise a coding scheme to examine their analytic potential with respect to the criterion of future study participation. Our analysis suggests that responsive and engaged behaviors vary with respect to the goals of standardization—some conflict with these goals, while others complement them.

1. Introduction

Survey researchers have long invoked the concept of “rapport,” either to describe qualities of the interaction between the interviewer and sample member (e.g., Dundon and Ryan 2010) or as an intervening mechanism that influences the respondent’s decision to participate and effort during the interview (e.g., Thornton, Freedman, and Camburn 1982). Rapport has been examined in interviews (e.g., Belli, Lepkowski, and Kabeto 2001; Lavin and Maynard 2001), but the concept, its dimensions, and the features of the interaction that might indicate its qualities have not received comprehensive analysis, contributing to the concept’s “disrepute” (e.g., Schaeffer 1991; Goudy and Potter 1975). An important challenge to such an analysis is to identify what opportunities for creating and maintaining rapport are available within the constraints of a standardized survey interview, which is meant to produce high quality data by ensuring all respondents are asked the same questions in the same way to minimize interviewer variance in measurement.

This study examines rapport as an observable feature of interaction rather than focusing on its (undoubtedly related) psychological aspects. We consider the various dimensions of rapport and their interactional expressions both for interviewers and respondents in standardized interviews. In particular, we recognize that a general concept such as “rapport” needs to be adapted to the specific task environment of the survey interview and the roles and goals of the actors. Thus, we identify two actor-specific concepts to be examined: the interviewer’s responsiveness and the respondent’s engagement. We characterize sets of utterances as interactionally responsive and engaged in various ways, considering their content and sequential placement in the interaction. Rather than viewing rapport as a violation of standardization, we

examine whether the behaviors that constitute responsiveness and engagement complement or conflict with the practices of standardization to accomplish the task of obtaining codable answers to survey questions. We then translate our qualitative descriptions to a coding scheme to examine the analytic potential of the dimensions of responsiveness and engagement with respect to the criterion of future study participation.

2. Background

2.1. Standardization in Survey Interviews

Despite the potential cost savings of self-administered modes, interviewer-administered surveys continue to be central to data collection (see overview in Schaeffer, Dykema, and Maynard 2010). Interviewers can be used with area, telephone, and list sampling frames, and response rates typically are higher when an interviewer recruits participants. Use of interviewers also facilitates selection of respondents, administration of complex instruments, and collection of auxiliary measures (e.g., biomeasures, cognitive tests, linkages between survey data and sensitive external records, such as Social Security data) that are increasingly incorporated into study designs (e.g., Panel Study of Income Dynamics, Health and Retirement Study). For both panel and cross-sectional studies, the motivation of sample members to participate, work to provide accurate and honest answers, and consent to providing sensitive information is critical to data quality, and interviewers play a key role in fulfilling these requirements.

Many studies that use interviewers are standardized survey interviews. The practices of standardized interviewing aim to control interviewer variability (Hyman 1975[1954]; O’Muircheartaigh and Campanelli 1998; Schaeffer, Dykema, and Maynard 2010; Schnell and Kreuter 2005). Fowler and Mangione (1990) codified the rules of standardization: read

questions as written; probe inadequate answers non-directively; record answers without discretion; and be interpersonally nonjudgmental regarding the substance of answers.

If survey questions are clearly written and fit the target population, standardized interviews should consist of a series of “paradigmatic” question-answer sequences (Schaeffer and Maynard 1996, 2008), in which the interviewer reads the question as scripted and the respondent provides an answer to the question that is codable, that is, one of the response options that the interviewer can code (e.g., “yes” for a yes/no question); optionally, the interviewer may acknowledge the respondent’s answer before moving on to the next question. However, answers to survey questions are interactional accomplishments, and nonparadigmatic question-answer sequences arise for many reasons, including respondents’ displays of the uncertainty, understandings, accommodations, and adjustments that may occur while respondents formulate answers to survey questions (Schaeffer and Maynard 2008). Some ways interviewers respond may go beyond the rules of standardization but still be consistent with the goals of measurement, although it may be difficult to demonstrate their impact on measurement.

Variants of strict standardization address three possible ways to relax its rigidities. (1) Allow interviewers more freedom in diagnosing and attending to the respondent’s comprehension problems, with the goal of improving understanding of key concepts (Schober and Conrad 1997). (2) Allow the interviewer to improvise during event history calendar interviews in ways that are predicted to improve the respondent’s recall (Belli, Bilgen, and Al Baghal 2013). (3) Motivate the respondent with utterances that recognize or acknowledge emotions such as sadness, frustration, or irritation in a prior utterance, as in Dijkstra’s “personal style” of interviewing, which augmented standardization with restricted types of person-oriented

feedback (Dijkstra 1987). Notwithstanding these studies, much large-scale production interviewing relies on traditional standardization using large corps of interviewers of varying backgrounds, and we still know little about the implications of traditional standardization for the engagement or motivation of the respondent.

2.2. Studies of Rapport

Rapport is a concept often invoked as instrumental in motivating respondents to participate and provide complete and accurate information in the interview. However, conceptual and operational definitions of rapport vary (Weiss, 1970; Goudy and Potter, 1975). It has been described by referring to perceptions of the actors or an observer--such as a sense of affiliation, friendliness, comfort, or empathy between interactional partners; a willingness to disclose; or a motivation to please (see, e.g., Cannell and Axelrod 1956; Weiss 1968). Or rapport can be used to refer to the content of utterances, such as acts of disclosure, expressions of empathy or positive evaluations (Dijkstra 1987; Houtkoop-Steenstra 2000), or to specific verbal or non-verbal behaviors such as laughter, smiling, eye gaze, head nods, or acknowledgement (e.g., Cassell and Miller 2008; Foucault Welles 2013; Weiss 1970). Any of these – perceptions, content of utterances, or behaviors -- might be used as an indicator of a latent construct of rapport (e.g., Belli et al. 2013). Finally, rapport can be defined structurally, as a property of the interaction itself, for example as synchronization or coordination in talk, laughter, or posture (e.g., Cappella 1990; Lavin and Maynard 2001). One influential conceptualization of rapport includes several of these elements: mutual attentiveness, positivity, and coordination (Tickle-Degnen and Rosenthal 1990).

Behaviors used to indicate rapport have sometimes been operationalized as present or

absent, without attending to the context within which the behavior occurs. For example, investigations of verbal behavior during the interview have examined rapport by noting whether laughter or digressions from the interview script occurred (e.g., Belli, Lepkowski, and Kabeto 2001; Belli et al. 2013). Failing to consider the context within which behaviors such as laughter occur within and across question-answer sequences risks misunderstanding the actions performed by the behaviors. For example, previous research indicates that respondents initiate laughter more frequently than do interviewers and that whether and how interviewers reciprocate the laughter depends on how they are trained or features of the instrument (Cannell, Fowler, and Marquis 1968; Lavin and Maynard 2001). Context is likely similarly important for other behaviors, so repairing this omission in current research is critical.

Conversation analysis is a research method that examines both the content and structure of talk in interaction. The interactional work of “rapport” and related concepts such as “empathy” and “affiliation” have been investigated by conversation analysts, although only in a limited way for the survey interview. In talk outside the survey interview (for example, when sales people reciprocate a customer’s evaluation of something), the sequence of talk may create the opportunity for subsequent affiliative turns (Clark, Drew, and Pinch 2003). Lavin and Maynard (2001: 454) define rapport narrowly, as occurrence of reciprocal laughter. Or rapport may involve how accounts of personal experiences create empathic moments with which the recipient is invited to align, with alignment depending on the recipient’s experience with respect to the event in question (Heritage 2011; Ruusuvuori 2013). The related concept of “affiliation” has been invoked to describe heterogeneous interactional practices (Lindström and Sorjonen 2013): social solidarity, preference organization, affective stance, alignment, and responsiveness

among others. These conversation analytic observations can inform the study of rapport.

2.3. Interviewer-Respondent Interaction in Survey Interview

Data obtained through the survey interview are a collaborative achievement accomplished through talk: The actual interactional practices include some features of conversation but are also a series of paradigmatic question-answer sequences that serve institutionalized purposes (Drew and Heritage 1992; Schaeffer and Maynard 2008; Suchman and Jordan 1990). Thus, an additional consideration for the analysis of interaction in the survey interview is the various--and potentially conflicting--rules of talk that govern both conversation more generally and standardization in the survey interview.

In the standardized survey interview, the interviewer-respondent interaction has two interrelated dynamics (see also Clark 1996; Maynard and Marlaire 1992). The interview-management dynamic is oriented, under the leadership of the interviewer, to the task, its requirements, and the rules of standardization. The interviewer must correct the course of the interview—and sometimes train the respondent—to keep the interview within the constraints of standardization. The interviewer has more experience than the respondent, having been trained as an interviewer and about the particular set of items. Yet the respondent also affects the course of the interview: the respondents' actions and inactions determine how often the interviewer must correct the course of the interview within the confines of standardization.

The conversation-management dynamic is oriented to the maintenance and organization of the interaction. Conversational practices learned through everyday conversation and interactions may be deployed automatically, because communicating in the survey interview is similar to communicating in other talk. Yet conversational practices may conflict with the

practices of a standardized interview; for example, Suchman and Jordan (1990) went so far as to propose that the standardized survey interview suppresses conversational resources that could clarify meaning and interpretation and so undermines the validity of the data obtained (see also Schober and Conrad 1997). The interview-management and conversation-management dynamics operate in tandem over the course of the interview, and the participants' behaviors may be oriented to the goals and structure of the task, to other conversational goals, or to both.

2.4. Current Study

As noted above, a global concept such as "rapport" needs to be modified to recognize the different roles of interviewers and respondents in the task environment of the survey interview (Maynard, Freese, and Schaeffer 2010; Schaeffer, Garbarski, Freese, and Maynard 2013; Weiss 1970). In this study we focus on the interviewer's responsiveness and the respondent's engagement.

We define the interviewer's responsiveness as the interviewer fitting a response to the respondent's preceding talk. This "fit" or "alignment" can occur with respect to the survey task, rules of standardization, content of the talk, or conversational practices. This definition extends previous work which has focused on responsiveness as talk outside the practices of standardization (Dijkstra 1987; Schober and Conrad 1997) or on how interviewers respond to sample members' concerns (see, e.g., Broome 2015; Schaeffer et al. 2013). The respondent's engagement is defined as behaviors consistent with motivation to perform the task (Cannell, Miller, and Oksenberg 1981; Dijkstra 1987), that is, behaviors that display attention to the survey task, interest in the survey task, or both. Because we observe very few opportunities for ingratiating behaviors by the respondent, we focus on engagement with the survey task, although

we note possible instances in which ingratiation might occur.

We describe interviewers' responsiveness and respondents' by considering the content and placement of utterances in the interaction. This approach allows us to describe where the opportunities arise—or are missed—for interviewers to display responsiveness and respondents to display engagement. We define *behaviors* as what is said and *actions* as what the behaviors accomplish, or the “main job” the turn is performing (Levinson 2013). Thus, the dimensions of responsiveness and engagement are actions—accomplished by behaviors characterized in terms of content and placement in the interaction—and not affective states or conscious processes that interviewers and respondents engage in (which may be present, but are not directly observable).

We characterize dimensions of the interviewer's responsiveness and the respondent's engagement and examine whether responsiveness and engagement complement or conflict with the practices of standardization for obtaining a codable answer to each question. In contrast to previous work, we: 1) use actor-specific concepts (the interviewer's responsiveness and the respondent's engagement) and their subdimensions to examine “rapport” within the standardized survey interview; 2) re-conceptualize “rapport” as something that can be described in terms of displayed engagement or interest in the survey task and the responsiveness or fit of utterances with respect to the survey task, rules of standardization, content, or conversational practices; and 3) highlight ways in which dimensions of rapport may conflict with but also complement the goals of standardization.

We study questions about end-of-life planning and treatment preferences in a survey of older adults, the Wisconsin Longitudinal Study (WLS). To identify and characterize actions (that is, other than the paradigmatic question-answer sequences) as dimensions of responsiveness

or engagement, we examine a portion of a survey with questions of varying difficulty¹ and sensitivity,² in order to observe a range of behaviors.

3. Methods

3.1. Data

This study uses digitally recorded telephone interviews conducted in the 2003-2005 wave of the Wisconsin Longitudinal Study (WLS), a one-third random sample of the Wisconsin high school class of 1957 that has been interviewed periodically. The investigation presented in this manuscript is part of a larger study that uses future study participation as a criterion to assess dimensions of responsiveness and engagement. We use future participation as a criterion for the larger study from which this study is drawn because it is an outcome of interest to survey researchers and because it is probably associated with rapport, although we cannot assess whether dimensions of rapport lead to future participation or are indicators of an underlying propensity to cooperate by both engagement in the interview and participation. We use providing a saliva sample when requested as our criterion because the request is challenging enough that we expect only the most motivated respondents to comply. Only 55% percent of respondents in the graduate sample provided the saliva sample (between 2007 when the request first made and 2009 when the data were updated) compared to 81% who answered a follow-up self-administered instrument mailed a few months after their phone interview in 2004-2005. If propensity to participate is associated in varying ways with responsiveness and engagement displayed during a survey interview, then our method of selecting cases should at least ensure a range of behaviors from both respondents and interviewers.

The complete analytic sample consists of 105 matched pairs of transcribed cases (210

cases) selected from the sample of original high school graduates that was interviewed in 2003-2005.³ These cases were selected to simulate a case-control design: The cases form pairs in which one respondent provided a saliva sample and one did not. The pairs are matched exactly on past participation in the WLS and gender and on their estimated propensity to provide a saliva sample.⁴ Our sample is stratified by three levels of propensity to participate to ensure a sufficient number of pairs at each level. The sample is organized into random replicates to facilitate developing and applying coding systems independently in the larger study. The study presented here uses the first replicate of this sample, comprised of 15 pairs or 30 cases.

3.2. Analytic Strategy

We use the 30 cases (15 pairs) to conceptualize and describe dimensions of responsiveness and engagement displayed in the interaction. In our transcripts a “line” is a turn of talk, although a turn by the interviewer may be broken up into two lines if the interviewer begins the next question within the turn. We use “(F)” to denote a first name, with an F for each syllable. Our analytic strategy combines features of conversation analysis and content analysis, although we do not use either method in a strict way.

We drew on conversational analysis to uncover the practices used to accomplish social actions through talk and to characterize behaviors as interactionally responsive or engaged. Central concepts that inform the analysis include the description of an “action” (see above), as well as the sequencing of actions in adjacency pairs (Stivers 2013), the preference structure of initiating and responding actions (Pomerantz and Heritage 2013), repair (Kitzinger 2013), and overlapping talk. We employed an inductive methodology, going through multiple iterations to describe (and revise) the analysis of each turn, question-answer sequence, and case, and to

identify features that persisted across contexts. We also drew on our experience examining interviewer-respondent interaction to identify and search for keywords. These include apologetic utterances (“sorry”), mitigators (“just”), and acknowledgements (“okay”).

We examine the interviewer-respondent interaction for the 13 to 29 questions (depending on skip patterns) in each of the 30 cases. Each author listened to a set of cases and went through the transcripts to identify interactional dimensions of responsiveness and engagement, and we developed group consensus about the dimensions and their alignment with standardization. We note that although we characterize utterances based on their content and placement, nuances that were not captured in these transcripts could lead to a different interpretation, such as a “sarcastic” tone for “sorry,” smile voice, pauses within and between turns, and other forms of nonverbal communication. Thus, our descriptions are plausible but subject to measurement error. Further, these characterizations of interactional responsiveness and engagement do not imply a psychological assessment of the actors’ interpretation of the interaction.

In the Results section, we present conceptual descriptions of the interviewer’s responsiveness and the respondent’s engagement, then illustrate these dimensions and how they complement or conflict with the rules of standardization with selected question-answer sequences. These descriptions are selected to describe how responsiveness and engagement are displayed in the interaction and to highlight their complexity rather than summarize the frequency with which these behaviors occur. Finally, we present an analysis using a coding scheme based on the qualitative descriptions and applied to the set of 30 cases. We do this to explore the analytic potential of our concepts and their operationalizations.

4. Results

4.1. The Interviewer's Responsiveness

As noted above, our definition of the interviewer's responsiveness is the interviewer fitting a response to the respondent's talk in a way that considers the survey task, rules of standardization, content, or conversational practices. We identified various dimensions of the interviewer's responsiveness: (1) In its most basic form, responsiveness is displayed when the interviewer's acknowledgments display *listening*, such as saying "okay" after the respondent answers the survey question.

(2) Another set of responsive practices displays how the interviewer *understands* what the respondent has said and how she will treat that content in formulating an answer; these recapitulations by the interviewer also *allow for choice or correction* by the respondent, underscoring the collaboration involved in answering survey questions. For example, by repeating the respondent's utterance, the interviewer displays attentiveness similar to the simplest form of "reflective listening" in motivational interviewing: showing an interest in and understanding of what the participant has to say by repeating or rephrasing what has been said (Miller and Rollnick 2002); an example of this is the interviewer saying "your children" after the respondent answers "my children." Another practice that displays understanding and allows for choice or correction is when the interviewer appends a "verification" to her initial reading of the survey question. Verifications occur in situations in which the respondent has provided the answer to the current question before the interviewer finishes reading the question or while answering a preceding question, such as, "who is that first person, and you said your husband?" A related practice that often attends these practices is an explicit request for confirmation using

the phrase “Is that correct?” or its variants.

(3) Another dimension of the interviewer’s responsiveness is *apologetic* utterances, such as “sorry,” which acknowledge and align with potential interactional troubles, such as interruptions or expressions of irritation or frustration. (4) Behaviors that *address the respondent’s uncertainty, difficulties, or other problems* in answering the survey questions respond to the substantive content of the respondent’s answer and manage troubles, for example, by following up markers of uncertainty, mismatch, or difficulty. Although interviewer follow-up actions are responsive in terms of addressing the respondent’s uncertainty, they are so to varying degrees and with varying implications for standardization. (5) Behaviors that *facilitate efficient progress through the interview* include reading questions exactly as scripted or offering to turn the respondent’s utterance into an answer, for example, by “coding” an uncodable answer with a directive follow-up like, “Is that a ‘no’ then?”

(6) Behaviors that reinforce the structure of the task are responsive by *aiding the respondent’s cognitive processing* within the task, for example by linking the current question to the previous line of questioning with a preface like “and” or by naming a person the respondent previously mentioned “now for Mary...” (7) Behaviors that *downgrade* the force of the task or the request include phrases such as “would you say” and its variants. (8) Finally, interviewers are responsive when they provide reasons for behaviors that deviate from the task or conversational practices in order to *address potential misunderstandings* of the interviewer’s prior, current, or subsequent behavior. Examples of this include, “I have to read all the response options” when the respondent provides an answer before the interviewer finishes question reading, or “we’ll ask some more questions about those,” which validates the ancillary

information offered by the respondent as being relevant for future questions before returning to the interview script.

Clearly, responsive behaviors vary in consistency with the practices of standardization. Some behaviors are responsive in several ways at once, but a behavior might also be responsive in one way and unresponsive in another. In addition, one action could be accomplished by several different behaviors, and one behavior can perform several actions simultaneously. We attend to these possibilities in our descriptions of excerpts below, organized by the type of respondent talk that occasions these behaviors.

4.1.1. When the respondent's answer anticipates a subsequent question

Interviewers have an opportunity to display responsiveness when the respondent's answer anticipates a subsequent question. In Excerpt 1, the respondent answers Question 2, a yes/no question (see online Appendix A), by specifying the "anyone." This excerpt illustrates the influence of the question and the intrusion of conversational practices: the respondent's answer correctly predicts that a "yes" answer will be followed by a request to specify the person (this "filter + follow-up question" structure is common in surveys and other interactional contexts), and by providing that information he implies that his answer to the first question would be "yes." If the interviewer simply read Question 3 as scripted, she could be perceived by the respondent as having not heard him. After the interviewer reads Question 3, however, she appends the information the respondent just provided in a "verification." Applying our analysis of the types of responsiveness, we propose that a verification displays that the respondent has been heard and understood and offers the interviewer's understanding for correction by the respondent. Verifications also facilitate efficient progress through the interview by incorporating information

previously provided to suggest a codable answer at the current question. Although verification prevents the awkwardness that might result from ignoring this information (Schaeffer and Maynard 2008), this practice conflicts with strict standardization, because the interviewer does not read the question exactly as worded and instead offers a candidate answer in a way that might be considered directive.^{5,6}

Excerpt 1, female interviewer, male respondent, Case ID 30

Line	Question	Actor	Text
4	2	I	mkay have you discussed your health care plans and preferences with anyone?
5	2	R	with my brother
6	3	I	ok and let's see the first person would be your brother you said?
7	3	R	mhmm
8	3	I	ok

In Excerpt 2, the interviewer formulates a verification at line 485 using information provided at line 463. The interviewer uses the daughter's name ("FF" at line 485) in her verification coupled with a request for confirmation "correct?" and then announces the relationship that she is coding, "and she's your child" (line 487); "and" connects the current action to the discussion of (FF) at line 485 (Heritage and Sorjonen 1994). Although the verification and request for confirmation at lines 485 and 487 display listening by repeating information, they might also suggest that the respondent's earlier elaboration (at line 463) was not clear. The interviewer appears to orient to this possibility, addressing potential misunderstanding by providing a reason for her behavior (i.e., "just making sure double checking" online 489). The mitigator "just" reduces the force of the action -- the interviewer is only "making sure" and not doing something else, such as implying that the respondent did not provide adequate information earlier.

Excerpt 2, female interviewer, female respondent, Case ID 27

Line	Question	Actor	Text
463	5	R	because I do not want to be put on life support I do not want tube feedings and my daughter and I disagree she says what if you come out of the comatose situation I says (FF) don't put me through that
...			
485	12	I	who has that authority you said (FF) correct?
486	12	R	(FF)
487	12	I	and she's your child
488	12	R	yeah
489	12	I	just making sure double checking

In Excerpt 3, the interviewer follows up the codable answer at Question 6 by asking for the son's name (line 180); the mitigator ("just so...") modifies the purpose of the request ("I can"), but the request ends with the respondent's answer at line 181 before the proposed use is expressed. The interviewer confirms her hearing of the name (line 182). At line 183, the interviewer prefaces Question 7 with "and," emphasizing the structure of the task by linking the current question to the previous question-answer pair (Heritage and Sorjonen 1994). This application of conversational practices within standardized interviews supports the respondent's cognitive processing by displaying connections between questions. Yet referring to the son as "this person" ignores information in the common ground (Clark and Brennan 1991). In particular, using "this person" violates "lexical entrainment," or referring to the same object with the same phrase in conversation, subverting the establishment of a "conceptual pact" by not using the term ("FF" or "your son") established in prior talk (Brennan and Clark 1996). Because the interviewer could have incorporated information the respondent already provided, reading the question as scripted may display a lack of responsiveness.

Excerpt 3, male interviewer, female respondent, Case ID 18

Line	Question	Actor	Text
178	6	I	and who would the next person be?
179	6	R	our son
180	6	I	ok and what is his name just so that I can
181	6	R	(FF)
182	6	I	(FF)?
183	7	I	and how well does this person understand your preferences and plans for future medical treatment?

The interviewer can also be responsive in following up a codable answer. In Excerpt 4, the interviewer repeats (in line 1087) the respondent's answer (given in line 1086) before providing an acknowledgment ("ok" in line 1087). Such repetitions are distinct from verifications in that they do not occur in the question-asking slot and do not use information the respondent provided in response to a previous question; like verifications, they display the interviewer's understanding and allow for possible correction by the respondent. This follow-up of a codable answer is unnecessary from the point of view of strict standardization, although this practice may be useful with answers that are codable but complex, like that in Excerpt 4 in which the respondent answers with multiple people (note that for this question, interviewers are supposed to record all persons mentioned by the respondent).

Excerpt 4, male interviewer, male respondent, Case ID 9

Line	Question	Actor	Text
1085	15	I	who if anyone have you given these written instructions to?
1086	15	R	ah my wife and daughter
1087	15	I	your wife and daughter? ok
1088	15	R	yeah

4.1.2. When the respondent provides an uncodable answer

Interviewers can also display responsiveness after uncodable answers, particularly when the respondent displays a problem in mapping their experience onto the response options or

marks an answer as uncertain. The interviewer then determines whether and how to pursue a codable answer; the interviewer's next turn can vary both in responsiveness and in its conformity with standardization.

A "report" is an utterance that provides information relevant to the question but is not formatted as an answer to the survey question (terminology adapted from Drew (1984)). When there is a lack of fit between the question and the respondent's situation (Schaeffer and Maynard 2008), a report by the respondent displays a problem for possible repair by the interviewer. In Excerpt 5, the respondent's report (line 1487) notes that they "did" have arrangements "a few years ago," but indicates that they "don't know if that would" [count] because "things have changed over the years." This report functions to delay a dispreferred action--the "no" answer offered at line 1489 (see, e.g., Pomerantz and Heritage 2013). The interviewer's "mhmm" (line 1488) allows the respondent's story to continue to an upshot, "so probably na it's not up to date" -- a candidate answer of "no" preceded by a marker of uncertainty ("probably") and followed by a summary of the account for that answer (line 1489). The respondent's narrative identifies an ambiguity in the question: has the respondent has ever made such arrangements, are arrangements are currently in effect, or are arrangements in effect that express the respondent's current wishes? In the absence of specific instructions, the interviewer may not clarify which of these interpretations is intended. So the interviewer directs the respondent to map their report onto one of the response options ("would you say yes or no then," line 1490). This follow-up is consistent with standardization's requirement that follow-up actions be nondirective (Fowler and Mangione 1990). Yet the follow-up formulates the respondent's choice as a conclusion from their story, allowing the respondent to code herself (the "so" and "then" formulation).

Moreover, in the face of the displayed ambiguity, the interviewer uses “would you say,” a distancing phrase that downgrades the request; it suggests that a “best match” is sufficient and the answer need not perfectly describe their experience (Horgan 2005; Garbarski, Schaeffer, and Dykema 2011). Thus, the interviewer simplifies the task within the constraints of standardization, addressing the problem the respondent displays by downgrading the request while maintaining the respondent’s role in confirming her answer. Standardization does not require this follow-up, but it may be useful with complex answers, such as when respondents display uncertainty or mapping difficulties along with their codable answer.

Excerpt 5, female interviewer, female respondent, Case ID 2

Line	Question	Actor	Text
1486	11	I	have you made any legal arrangements for someone to make decisions about your medical care if you become unable to make those decisions yourself?
1487	11	R	uh you know I did a few years ago but I don't know if that would it it you know things have changed
1488	11	I	mhmm
1489	11	R	over the years so probably na it's not up to date
1490	11	I	so would you say yes or no then
1491	11	R	um no
1492	11	I	ok

Like the report in Excerpt 5, those in Excerpts 6 and 7 display uncertainty about how the respondent’s experience fits the question. In contrast to Excerpt 5, however, the interviewers in Excerpts 6 and 7 address this uncertainty with directive follow-up actions. Directive follow-up actions such as these often occur when the respondent’s utterance implicates one of the response categories (Moore and Maynard 2002), and the action is similar to the “coding” that interviewers do when they treat an answer like “probably” as a synonym for “yes” (Hak 2002).

In Excerpt 6, the interviewer’s follow-up at line 826 is similar to the interviewer’s

follow-up in Excerpt 5, except that the interviewer in Excerpt 6 proposes just one response option as a candidate answer; it is not clear that the candidate answer is appropriate, but the respondent accepts it. In Excerpt 7, the interviewer proposes a candidate answer at lines 6 and 8 in a follow-up that formulates for the respondent one definition of the scope of the question, “with someone at some point;” this interpretation in turn suggests that the respondent’s information at line 5 implies “yes.” The formulation displays the interviewer’s understanding of the respondent’s talk and allows for possible correction by the respondent, yet these excerpts show that the interviewer’s follow-up to a report may display varying degrees of listening and understanding—although Excerpt 6 can be heard as “don’t know,” the interviewer’s action selects an understanding that favors the codable answer “no.” Although directive follow-up actions manage the respondent’s uncertainty and facilitate efficient progress through the interview, they violate common rules of standardization and may lead to misrepresentations of the respondent’s true answer.

Excerpt 6, male interviewer, male respondent, Case ID 12

Line	Question	Actor	Text
824	20	I	do you have assets or property that will go to someone through a joint ownership or beneficiary designation?
825	20	R	just those mentioned in the will but I don't think I can answer your question
826	20	I	ok so then would you say no then to that?
827	20	R	yeah
828	20	I	ok

Excerpt 7, male interviewer, male respondent, Case ID 10

Line	Question	Actor	Text
4	2	I	all right so all right we'll ask some more questions about those um have you discussed your healthcare plans and preferences with anyone?
5	2	R	well I I put my wife that died we had that old you

know but I haven't discussed with my new wife so but
 uh
 6 2 I oh ok so you have at some point though
 7 2 R Mm
 8 2 I you have discussed it with someone at some point?
 9 2 R yeah with my wife my uh first wife the one that died
 you know
 10 2 I yup ok I'll write that down

The respondent's report may volunteer a hypothetical response option that falls along the continuum offered by the response dimension but is not included in the question (Garbarski, Schaeffer, and Dykema 2011), making a potential uncertainty or difficulty available for possible repair by the interviewer. The WLS investigators made reading the response options optional when the "how well" questions were repeated the second and third time (see online Appendix A), but omitting the response categories may lead to nonparadigmatic question-answer sequences. In Excerpt 8, the interviewer reads Question 7, and the respondent answers with a hypothetical response option at line 184: "very well" lies on the response dimension ("how well"), but the response options are "extremely well, somewhat well, not very well, or not at all." The respondent's answer implicates one region of the response scale but does not differentiate between the two options on that side ("extremely" or "somewhat"). The interviewer follows up with these implicated categories in a practice that has been called "tuning" (van der Zouwen and Dijkstra 2002); although tuning was not standard practice where the data were collected, the investigators authorized interviewers to use it in the WLS to reduce burden on the respondent. The interviewer's tuning follow-up displays listening and understanding in that it attends to the information the respondent provided initially and allows the respondent to choose an answer from a reduced set of choices. This procedure is efficient in that the interviewer is being concise, reading only the response options implied by the respondent's hypothetical answer. However,

tuning may conflict with the rules of standardization to follow-up nondirectively, given that the meaning of any response category depends on the entire set of categories being considered (Fowler and Mangione 1990; Schaeffer and Charng 1991; Smit, Dijkstra, and van der Zouwen 1997).

Excerpt 8, male interviewer, male respondent, Case ID 18

Line	Question	Actor	Text
183	7	I	and how well does this person understand your preferences and plans for future medical treatment?
184	7	R	very well
185	7	I	mkay so would you say extremely well or somewhat well?
186	7	R	extremely well he has a copy

By attending to both the content and the structure of the interaction, we can also locate missed opportunities for interviewers to address the respondent's uncertainty. In Excerpt 9, the respondent repeats the question topic at line 287, says "don't know," and then announces he "forgot" in a way that could be heard as a request for clarification. Rather than following up with the optional definition of revocable trust that appears on the interviewer's computer screen, the interviewer acknowledges the respondent's "don't know" answer and moves on to the next question. Moving to the next question rather than following up is unresponsive in that it leaves the respondent's uncertainty unaddressed and may reduce the respondent's motivation to display these ambiguities or uncertainties later in the interview. Yet moving on also facilitates efficient progress through the interview—as a procedural compromise, it is a "good" reason for "bad" records (Garfinkel 1967; Heath and Luff 1996). However, moving on in this instance also conflicts with standardization. Fowler and Mangione (1990) note that interviewers should follow up a "don't know" response unless it is clear that the respondent is offering "don't know"

as an answer. Since a potential request for clarification follows the “don’t know,” the interviewer should have responded to the request.

Excerpt 9, male interviewer, male respondent, Case ID 14

Line	Question	Actor	Text
286	19	I	and do you have a revocable trust?
287	19	R	um revocable trust oh I I I don't um I don't know I forgot what that was
288	19	I	ok

4.1.3. When the respondent interrupts

Respondents may talk at various points during the reading of the question – for example, after something that can be heard as a complete statement or question, or after the first relevant response category. This speech may not constitute an “interruption” from the respondent’s point of view, but it poses challenges for the interviewer. The interviewer’s action in resuming the reading of the question may imply that she is correcting the respondent’s proffered answer, and so the interviewer must do this in a way that preserves the respondent’s engagement.

For example, the respondent in Excerpt 10, who has just heard a question similar to the current question that also has the same response options, says “strictly” at a point that can be heard as a complete question but before the response options are repeated. The interviewer then explains that he “has” to read the rest of the question, thus providing a reason for not accepting the answer. He prefaces his resumed reading with an apologetic utterance (“I’m sorry”) (line 886), a practice that interviewers sometimes use when managing interactional troubles. The interviewer’s verification incorporates the answer proffered by the respondent and appends a request for confirmation (line 886), thus acknowledging and displaying understanding of the proffered answer and allowing for possible correction. Although the rules of standardized

interviewing require this interviewer to continue reading the question after the respondent provides an answer, which could appear unresponsive, the combination of an apologetic utterance, reason, verification, and request for confirmation manage the interactional troubles that could ensue from the interviewer's repair.

Excerpt 10, male interviewer, male respondent, Case ID 12

Line	Question	Actor	Text
882	29	I	and how strictly would your spouse want you to follow her wishes?
883	29	R	Strictly
884	29	I	ok I I have to read the rest of the question
885	29	R	ok
886	29	I	I'm sorry um would she like you to strictly follow her wishes or do what you think is best even if your preferences are different from her own? and you said strictly follow is that correct?
887	29	R	mhmm

4.1.4. When the respondent laughs or jokes

The context for and features of laughter and joking in the survey interview are distinctive. Given the constraints placed on the standardized interviewer, laughter and joking are more commonly initiated by the respondent than the interviewer (Cannell et al. 1968; Lavin and Maynard 2001). Furthermore, the interactional force behind the respondents' joking or laughter may be ambiguous: in addition to affiliating and inviting reciprocation (Lavin and Maynard 2001), laughter or jokes may display a "troubles resistance" that indicates uncertainty or difficulty with the question or the answer (Jefferson 1984), or they may mark a question or answer as sensitive. Indeed, the jokes by respondents that we see in our data are either self-deprecating with respect to the task or jokes about death. These issues thus complicate interpretation of the interviewer's responsiveness to the respondent's laughter and jokes.

Although reciprocating laughter signals a momentary alignment between parties laughing with one another, the topic matter and potential question difficulty in this particular study may require that interviewers not reciprocate laughter so as not to imply laughing at the difficulty or sensitivity of the question and thus the respondent. The upshot from the point of view of standardization is similarly complicated: laughter sometimes invites digression, and survey centers vary in their training of interviewers (Viterna and Maynard 2002).

The survey question in Excerpt 11 is conceptually complicated, because where one spends the last few weeks of life probably depends on unknown future circumstances. The respondent displays rumination or hesitation about the question with a token (“huh”) followed by laughter, which the interviewer reciprocates (lines 296-297). The respondent’s laughter is “question-oriented” (Lavin and Maynard 2001)--it follows the survey question and occurs where the answer would usually appear. The location of the laughter after the token (“huh”) could mark the topic as sensitive, the question as difficult, or both, rather than serving as a humorous comment about the question. The interviewer’s reciprocation of the respondent’s laughter is responsive with respect to the dimension of listening, showing that she has heard the laughter and is responding in kind. However, if the respondent’s laughter marks sensitivity or difficulty, the interviewer’s laughter could take the place of potentially more responsive actions, such as an apologetic utterance that would acknowledge the sensitivity for the respondent.

Excerpt 11, male interviewer, male respondent, Case ID 14

Line	Question	Actor	Text
295	23	I	and when you think about the last few days or weeks of your life do you hope to spend these days in your home at an hospital with hospice care or in a nursing home?
296	23	R	huh {L}
297	23	I	{L}

298	23	R	home
299	23	I	ok

In Excerpt 12, the respondent offers a report at line 51 and the interviewer initiates a repair in a way that might be characterized as “delicate” in that it does not confront the respondent’s mis-characterization of the question directly: the question refers to “very low chances of survival,” but the respondent refers to “no chance.” The interviewer acknowledges the respondent’s report with “okay” and then initiates a correction at line 52, not by repeating the problematic part of the respondent’s utterance but by repeating the portion of the question that presents the correction. (The positive valence of this and most other acknowledgment tokens suggests a role for acknowledgments in mitigating subsequent repairs.) Further, the “embedded correction” (Jefferson 1987) does not “expose” the respondent’s mistake by turning the matter into an explicit error correction sequence but allows the correction to be accomplished in the course of other interactional business. The respondent answers at line 53, and he expands the answer with a humorous comment (line 55). In contrast to the laughter in Excerpt 11, the humorous comment is not placed to express difficulty or sensitivity, and thus can be affiliative and invite reciprocation. (However, given the topic, any joke by a respondent could be a way to manage the sensitivity of the topic in this relatively impersonal setting.) The interviewer’s laughter at line 56 is responsive by displaying listening, although again, the laughter could impede progress through the interview if laughter is itself a digression or invites that possibility.

Excerpt 12, male interviewer, male respondent, Case ID 10

Line	Question	Actor	Text
50	24	I	um now I am going to ask two questions about your end of life treatment preferences suppose you had a serious illness today with very low chances of survival uh first what if you were mentally intact but in severe and constant

physical pain? would you want to continue all medical treatments or stop all life prolonging treatments?

51 24 R well if I didn't have no chance I wanna stop everything yeah

52 24 I uh ok just says a very low chances of survival?

53 24 R yeah man

54 24 I so

55 24 R I always say throw me in the river you know

56 24 I {L}

57 24 R {L}

58 24 I so for with very low chances you've wanna stop too is that correct?

59 24 R yeah

60 24 I ok

4.2. The Respondent's Engagement

The discussion of the interviewer's responsiveness highlights the interdependence of actors: it is impossible to discuss the interviewer's responsiveness without examining the respondent's behavior. With the preceding examples in mind, we now characterize the dimensions of the respondent's engagement – attention to or interest in the survey task. Expressions of engagement vary in the challenges they pose for interviewers trying to maintain standardization. Behaviors that display the respondent's engagement include the following: (1) Like interviewers, respondents display *listening* with acknowledgments. There are several different sub-topics within the end-of-life planning section; when a new topic is announced, the end of the preamble that introduces the topic before the target question provides a site that some respondents use to display that they are listening, often with “mhmm” or “okay.”

(2) The section about end-of-life planning comes at the end of a telephone interview that lasts just under 75 minutes on average. At this point in the interview, many respondents appear to be “well-trained”; that is, they wait for interviewers to finish reading the question before

answering, and choose one of the offered or implied response options in their first answer turn. Such *training* or cooperation with the practices of the interview may display a kind of engagement with the survey task, because such respondents must have attended to the procedures of standardized survey interviews; thus, a series of question-answer sequences with complete codable answers (e.g., “yes” for a yes/no question) may display evidence of this training.

(3) Two variations of codable answers -- double answers and restatements -- may signal engagement with the task by *emphasizing* the respondent’s answer. Double answers include repeating the answer (e.g., “yes yes”) or expanding on the answer provided with a synonym (e.g., “nope no”). Restatements use part of the question wording to formulate an answer to the question (e.g., “no plans” or “yes I have” as answers to Question 1). Although these emphasizing answers do not challenge the interviewer’s ability to maintain standardization, another type of emphasizing answer, the anticipatory answer, does. In Excerpt 1, the respondent’s answer provides additional information that is directly relevant to the topic of the item and implies and emphasizes “yes” by answering who “anyone” is. However, as discussed, this additional information makes it difficult for the interviewer to simultaneously display that the respondent’s answer has been heard and maintain standardization.

(4) Respondents can also show that they have *learned* the pattern of questions. For example, in Excerpt 10 above, the respondent displayed having learned the pattern of repetition in Questions 28 and 29 and gave a codable answer before the question reading was completed. Such learning is interactionally cooperative and facilitates progress through the task. As seen in Excerpt 10, however, these behaviors also challenge the interviewer’s ability to be simultaneously responsive and standardized.

(5) Some of the behaviors by respondents that we described earlier – such as reports that display uncertainty, mapping difficulties, or providing potentially relevant information, as in Excerpts 5 through 9 – may also display engagement and be interactionally cooperative. Such behaviors display that the respondent is *grappling with the topic and question*; in Excerpts 5 through 9, the respondents display a potential lack of fit between what the question is asking and their situation. Similarly, the beginning of the module is a site at which respondents who have experience with the topic may elaborate on their thoughts and experiences when the topic is first introduced. As discussed earlier, such displays are consistent with conversational practices but challenge the interviewer’s ability to maintain standardization.

5. Coding the Dimensions of Responsiveness and Engagement

Although generating a description of interactional responsiveness and engagement contributes to our understanding of rapport in the survey interview, even more compelling would be a demonstration that the dimensions of responsiveness and engagement have analytic and predictive potential, especially because prior research offers conflicting results about the influence of “rapport” (variably defined) on survey outcomes. Thus, we developed a coding scheme to quantify these dimensions. This coding highlights the tensions and tradeoffs of moving from a qualitative description of particular interactions to applying a coding scheme—with rules for inclusion and exclusion—to quantify the dimensions of responsiveness and engagement. These findings are located in online Appendix B. We applied this coding scheme to the 30 cases and used this small data set to analyze differences in the behavioral expressions of responsiveness and engagement between the matched pairs of future participants and nonparticipants in a case-control design.

To illustrate the analytic potential of these codes with the larger set of data (105 pairs), we consider the interviewer's exact reading of the question, which is key to standardization and responsive in at least one way—it facilitates progress through the interview. Because it is efficient and professional, exact question reading could motivate the respondent to continue through a pleasant scientific experience that they later recall when asked to provide a saliva sample. The direction of causality is ambiguous, however: the respondent allows the interviewer to be standardized when they answer immediately after the interviewer completes the question, and so the interviewer's exact reading could reflect the respondent's engagement. Although we cannot sort out these explanations, we are able to establish whether question reading is associated with future participation.

We coded whether the interviewer read all the questions exactly as scripted for five of the questions asked of all respondents (Questions 1, 2, 11, 24, 25 in Appendix A). We find that reading these questions exactly (compared to reading at least one of the questions with any changes) is associated with increased odds of future participation (conditional logistic regression: $OR=2.20, p<.05$). Several alternative operationalizations for question reading exist, and criteria other than future participation are also important, yet this analysis illustrates the analytic potential of the dimensions of responsiveness and engagement within the standardized survey interview.

6. Discussion

This study makes several contributions to studies of survey interviewing. First, drawing on previous theory and our observations, we propose actor-specific concepts to describe what rapport might look like within standardized survey interviews: responsiveness by the interviewer

and engagement of the respondent. Second, we describe specific behaviors of each actor, their sequential structure, and some actions these behaviors might accomplish as dimensions of responsiveness and engagement. By refining “rapport” in this way and considering the variable dimensions and expressions of responsiveness and engagement with respect to the survey task, standardization, or conversational practices, we see that responsiveness and engagement consist of behaviors that have varying implications for standardization. Finally, we illustrate how these qualitative observations can be the basis for a coding system--although some important nuances are lost in that transformation--and show how the behaviors of respondents and interviewers might predict subsequent participation in a longitudinal study (online Appendix B).

Maintaining the respondent’s engagement is one goal of survey researchers; respondents who are motivated to complete the task are potentially more likely to provide accurate answers, as illustrated by Dijkstra’s (1987) experiment about a personal style of interviewing; such motivation may also be an indicator of their underlying propensity to participate in future surveys. Respondents display engagement with the survey task in a variety of ways that show that they are listening, that they have absorbed training about how the interview works, and that they have learned the patterns within the questions; respondents may also exert more than minimal effort by emphasizing answers and displaying that they are grappling with the topic. However, these displays of engagement vary in the extent to which they provide the interviewer with challenges in maintaining standardization.

Opportunities for interviewers to display responsiveness are constrained in standardized survey interviews, yet we identify several dimensions of responsive behavior by the interviewer: displays of listening, understanding and allowing for choice or correction; apologetic utterances

that acknowledge troubles; addressing uncertainty, difficulty, or other problems in answering questions; facilitating efficient progress through the interview; aiding the respondent's cognitive processing; downgrading the force of the task or the request; or addressing potential misunderstandings. Although some of these dimensions of responsiveness have been described previously, our approach further characterizes types of responsiveness from the interviewer that orient to task goals. Such behaviors may be motivated by the reciprocity that underlies the interview: the respondent has agreed to do this long interview, and the interviewer has the tools and training to simplify the task, albeit with varying implications for standardization.

The various dimensions of responsiveness outlined above, with their behavioral expressions, fall under at least three categories with respect to standardization: they may conflict with standardization, are neutral from the point of view of standardization, or align with the rules of standardization. Responsive practices that may conflict with standardization include verifications, linkages across questions (that modify question reading), and directive or tuning follow-up actions for uncodable answers. Acknowledgments that display listening may also conflict with standardization to the extent that acknowledgments such as "okay" or "right" are interpreted by respondents as a positive comment on the content of the answer; thus, some survey organizations train their interviewers not to provide such acknowledgments. Responsive practices that are probably neutral under the rules of standardization include repeating or paraphrasing (by re-expressing the answer, such as "sure," in terms of the response categories, "yes") the respondent's codable answer; following up codable answers that are complex or express uncertainty or difficulty; providing reasons for their (the interviewer's) behavior; and apologetic utterances and mitigators embedded in other talk (although these would conflict with

the rules of standardization if incorporated within question reading). One responsive practice that is part of standardization is a nondirective follow-up after an uncodable answer. Overall, by broadening our consideration of the interviewer's responsiveness, we see that the responsive behaviors by the interviewer do not always conflict with the rules of standardization and may even enhance the goals of standardization when employed skillfully.

We have also shown the importance of considering sequencing in the interaction because the interviewer's opportunities for responsiveness are occasioned by the respondent's preceding behavior. In addition, examining the sequential nature of the interaction allows us to locate opportunities for responsiveness that were missed, for example, by failing to incorporate into question reading information that is in the common ground or failing to address the respondent's uncertainty, difficulties, or other problems in answering survey questions.

Intensive study of the dimensions of responsiveness and engagement during the survey interview is an integral first step in identifying practices that support reliable and valid measurement as well as motivation and willingness to continue participating in a study. Thus, the implications of the dimensions of responsiveness and engagement for data quality and future study participation will need to be addressed in future research. Important next steps include using the Total Survey Error perspective (reviewed in Groves and Lyberg [2010]) or the Comprehension-Retrieval-Judgment-Response model of respondents' cognitive processing (reviewed in Tourangeau, Rips, and Rasinski [2000]) to guide future research on whether and when the dimensions of responsiveness and engagement contribute to data quality and survey participation. In addition, understanding how rapport can be developed in ways that do not conflict with the practices and thus the goals of standardization is increasingly important as new

interviewing techniques must be developed to accompany new technologies and varied and demanding types of data collection, such as anthropometrics and biomarkers.

The current study highlights the multifaceted and context-specific nature of a seemingly straightforward sequence of question-answer-acknowledge by describing situations in which interviewers must deal with the tension between practices of conversation and standardized interviewing, and our study has some implications for question design and the training of interviewers. First, this study indirectly illustrates the important role of question design, because features of questions may elicit nonparadigmatic sequences that might be avoided with changes to the design of questions (Dykema, Schaeffer, and Garbarski 2012, 2013; Schaeffer and Dykema 2011a, 2011b; van der Zouwen and Dijkstra 2002). For example, researchers should minimize optional or conditional phrases in questions by integrating them into a single standard question (for example, Dykema et al. 2013) or at least specify on the screen exactly when to read optional phrases so that this information is given to respondents in a standardized way.

Second, a contribution of our qualitative analysis is to identify situations that interviewers encounter during the interview for which training and monitoring should provide guidance – but for which current research may not yet specify which behaviors by interviewers will have a negative effect on the quality of data or future participation. Needs of interviewers that may not be dealt with comprehensively in current standardized training regimes include:

- How to recognize a codable answer. For example, the design of the question needs to project for the respondent what detail is required to adequately answer a question about “who”: a name, a relationship, or both, and whether multiple names or relationships should be recorded as “other” or dealt with individually. Although this requirement

seems obvious, what constitutes a codable answer varies by the type of question, or the codable answers that an interviewer hears may be embedded in conversational practice (e.g., mitigating words such as “probably”); in any case, the interviewer must respond instantaneously.

- Whether and when to follow up codable answers that are complex, possibly internally inconsistent, or hedged in uncertainty or difficulty.
- How to identify and respond to a variety of nonparadigmatic sequences.
- Methods to manage interactional troubles such as interruptions or silences. These include, for example, giving reasons that acknowledge the respondent’s action and explain the practices of standardization (e.g., “I know you have given an answer, but I have to read all the categories so that you hear all your choices.”) or explain a silence (e.g., “Just one moment while I write that down.”)
- How to acknowledge or respond to apologetic utterances or laughter by the respondent.
- Which micro-adjustments that are common in conversation align with the goal of responsiveness without deviating from standardization in ways that affect the data. These may include acknowledgments (or “feedback”) such as “okay”, requests for confirmation, repeating codable answers, making linkages across questions (e.g., “and,” “next,”), some forms of mitigating talk (e.g., “just”), and apologetic utterances.
- Whether, when, and how to use verifications. This issue is particularly vexing for standardization, because it is both useful and conflicts with strict standardization. As yet there is no research about the boundaries within which this practice must stay in order to maintain data quality.

Future experimental research using the criteria of data quality and future study participation is needed before deciding whether and how particular practices proposed to deal with these interactional challenges should be incorporated into interviewer training.

One difficulty in any study of interaction is the heterogeneity in actions performed by particular behaviors—or by their absence. Conversational practices are learned through everyday interaction and may vary across people. Although a practice such as “mhmm” may indicate engagement when it shows listening, it may also simulate attention, and an absence of such utterances does not necessarily indicate a lack of engagement. Similarly, unreciprocated laughter may mean a variety of things, including poor conversational skills or a desire to keep the interview moving along. Although we examine interactional behaviors turn by turn, it is plausible that, in order to say something conclusive about the consequences of these behaviors, the entire interview must be analyzed and baseline standards of talk within interviewers and respondents developed. This is particularly important given that the mutual influence of the interviewer’s responsiveness and the respondent’s engagement complicates their study. For example, the interviewer’s responsiveness may increase the motivation of respondents to work hard and display uncertainties or misunderstandings—leading to more nonparadigmatic interactions and thus more sites for interviewers to display further their responsiveness.

This study describes behaviors that might constitute rapport and resulting challenges for the interviewer in maintaining the practices of standardization. Despite the potential limitations noted above, the ability to identify responsive behaviors by the interviewer and engaged behaviors by the respondent has potential applications in future studies, for example, to focus field efforts in longitudinal studies, so that recruitment specialists could focus on respondents

who displayed little engagement in the prior interview. Markers of respondent engagement could also be used to analyze concurrent data, possibly providing an adjustment for data quality depending on the results future studies with validation data that allow for examining the association between respondents' engagement and measurement error. Finally, understanding how interviewers import conversational practices into standardized interview is critical for designing interviewing methods and training interviewers in them. More studies are needed to examine which small accommodations and adjustments in interviewers' behaviors might be both compatible with practices of standardization and interactionally responsive, thus meeting measurement goals while maintaining the respondent's engagement and motivation.

Notes

1. The module includes questions that are difficult because they cover abstract topics, use varying reference periods and question structures, have long response options, and occur at the end of a lengthy interview (Schaeffer and Dykema 2011a).
2. Questions about end-of-life planning may be sensitive if respondents have not done any planning and perceive that the questions imply that they should have done so. Questions may also be perceived as intrusive or raise painful or stressful feelings for the respondent (Schaeffer 2000; Tourangeau and Yan 2007). Furthermore, the end-of-life planning module comes at the end of a lengthy interview in which the respondent has revealed considerable information about themselves to an interviewer who is usually much younger than the respondent. These asymmetries in disclosure and age may exacerbate the sensitivity of the topic.
3. Of 240 cases that were selected initially, we dropped 15 cases--and their pair member—due to missing audio. In the 210 cases selected there are 97 interviewers.

4. To construct the propensity score, we estimated a logistic regression model of providing a saliva sample (vs. not) using a variety of predictors of participation, including sex, participation in past waves, high school test scores and class rank, educational attainment, self-rated health, religious attendance, household income and net worth, and number of contact attempts by survey staff in the 2004 wave of data collection (Hauser 2005; McFadden pseudo $R^2 = .08$).
5. Although verification conflicts with some established versions of standardization, many survey organizations train their interviewers in this practice, having noted its usefulness (e.g., Kovar and Royston 1990, who use the term “confirm”). The WLS investigators authorized verification so that respondents would know they had been heard and to reduce burden on respondents. When verifying, interviewers were to read the entire question, state the respondent’s candidate answer, and then request confirmation (Wisconsin Longitudinal Study, Phone Booth, undated).
6. In the 24 instances of verification we observed in these data, the respondent repaired the interviewer’s proffered answer only once but ended up agreeing with the interviewer’s verification after further follow-up. This may indicate that interviewers are efficiently obtaining codable answers by attending to what the respondent said previously, that the verifications are worded to prefer agreement regardless of substance (Pomerantz and Heritage 2013), or both. The validation data that would be required to sort this out do not exist.

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Appendix A. End of Life Plans and Preferences Questions and Skip Patterns

Question Number	Scripted Question from WLS Script	Skip Pattern	Notes from WLS script ¹
1	Now I am going to ask some questions about the later years in life. Have you made plans about the types of medical treatment you want or don't want if you become seriously ill in the future?	All answers go to 2	
2	Have you discussed your health care plans and preferences with anyone?	If "yes" go to 3 If "no," DK, ² REF, ³ go to 11	
3	Who would the first person be?	If answer is provided go to 4 If DK or REF go to 11	
4	How well does this person understand your preferences and plans for future medical treatment? Extremely well, somewhat well, not very well, or not at all?	All answers go to 5	
5	Is there anyone else (with whom you've discussed these preferences and plans)?	If "yes" go to 6 If "no," DK, REF, go to 11	
6	Who would the next person be?	If answer is provided go to 7 If DK or REF go to 11	
7	How well does this person understand your preferences and plans for future medical treatment? (Extremely well, somewhat well, not very well, or not at all?)	All answers go to 8	

8	Is there anyone else (with whom you've discussed these preferences and plans)?	If "yes" go to 9 If "no," DK, REF, go to 11	
9	Who would the next person be?	If answer is provided go to 10 If DK or REF go to 11	
10	How well does this person understand your preferences and plans for future medical treatment? (Extremely well, somewhat well, not very well, or not at all?)	All answers go to 11	
11	Have you made any legal arrangements for someone to make decisions about your medical care if you become unable to make those decisions yourself? (This is sometimes called a Durable Power of Attorney for Health Care.)	If "yes" go to 12 If "no," DK, REF, go to 13	
12	Who has that authority?	All answers go to 14	
13	If you were going to pick a person to make medical decisions for you who would you choose?	All answers go to 14	
14	Do you have a living will or an advance directive? (This is written instructions about the type of medical treatment you would want to receive if you were unconscious or somehow unable to communicate.)	If "yes" go to 15 If "no," DK, REF, go to 16	
15	Who if anyone have you given these written instructions to?	All answers go to 16	If INT ⁴ asks "anyone else?" and R ⁵ answers, transcribe as part of this question.

16	Next I have some questions about the kind of arrangements you have made for your property or assets in the event of your death. Please think about all your assets including your home savings life insurance and the like. If you were to die tomorrow who would get these assets?	If R reports "spouse" go to 17 If R does not report "spouse" go to 18	If INT asks "all children or some children?" and R answers, transcribe as part of this question. If INT asks "who would benefit from this trust?" and R answers, transcribe as part of this question.
17	If you outlived your spouse who would your assets go to?	All answers go to 18	If INT asks "all children or some children?" and R answers, transcribe as part of this question.
18	Do you have a signed and witnessed will?	All answers go to 19	
19	Do you have a revocable trust? (Revocable trusts designate who will get property in that trust after their death.)	All answers go to 20	
20	Do you have assets or property that will go to someone through a joint ownership or beneficiary designation? (For example, a joint bank account or a beneficiary designation on a life insurance policy or pension.)	If R reports "spouse" go to 21 If R does not report "spouse" go to 22	
21	If your spouse were to die tomorrow how would most of his/her assets be distributed? (Would they go entirely to you to your children or to someone else?)	All answers go to 22	If INT asks "all children or some children?" and R answers, transcribe as part of this question. Pick "his" or "her".

22	Who is designated as the executor of your estate or would be responsible for the distribution of your estate?	All answers go to 23	If INT asks "who is most important" and R answers, transcribe as part of this question.
23	When you think about THE LAST FEW DAYS OR WEEKS of your life do you hope to spend these days in your home, at a hospital, with hospice care, or in a nursing home?	All answers go to 24	
24	Now I am going to ask two questions about your end of life treatment preferences. Suppose you had a serious illness TODAY with very low chances of survival. First, what if you were mentally intact but in severe and constant physical pain? Would you want to continue all medical treatments or stop all life prolonging treatments?	All answers go to 25	
25	Second, suppose you had no physical pain but would not be able to speak, walk, or recognize others with very low chances of survival. Would you want to continue all medical treatments or stop all life prolonging treatments?	If R is currently married go to 26 If R is not currently married go to 28	
26	Suppose your SPOUSE had a serious illness TODAY with very low chances of survival. First, what if he/she were mentally intact but in severe and constant physical pain? Would he/she want to	All answers go to 27	Pick "he" or "she".

	continue all medical treatments or stop all life prolonging treatments?		
27	Second, suppose he/she had no physical pain but would not be able to speak, walk, or recognize others with very low chances of survival. Would he/she want to continue all medical treatments or stop all life prolonging treatments?	All answers go to 28	Pick "he" or "she".
28	How strictly do you want your family or care provider to follow your wishes for end of life medical care? Would you like them to strictly follow your wishes or do what they think is best -- even if their preferences are different from your own?	If R is currently married go to 29 If R is not currently married end module	
29	How strictly would your spouse want you to follow his/her wishes? Would he/she like you to strictly follow his/her wishes or do what you think is best, even if your preferences are different from his/her own?	End module	Pick "he" or "she" and "his" or "her."

¹ These notes appear on the interviewer's screen

² Don't Know

³ Refuse

⁴ Interviewer

⁵ Respondent

Appendix B. Coding the Dimensions of Responsiveness and Engagement

Based on the description of the dimensions of responsiveness and engagement in the manuscript, we developed codes to quantify these dimensions. We applied this coding scheme to the 30 cases and used this small data set to analyze differences in the behavioral expressions of responsiveness and engagement between the matched pairs of future participants and nonparticipants in a case-control design. This exercise serves to illustrate the analytic potential of these dimensions of responsiveness and engagement, at least with respect to future participation as a criterion.

Table 1 displays the results from the coding of behavioral expressions of responsiveness and engagement for the 15 matched pairs of participants and nonparticipants in the subsequent request for a saliva sample. We first present the mean number of these behaviors to provide a sense of how often these behaviors occur in these data, although these are not generalizable outside this set of 30 cases given the case-control design. For similar reasons, we then present the data as rates of events (i.e., number of events divided by the number of questions asked) to account for the varying number of questions that respondents are asked. We then conduct matched pairs t-tests of mean differences in rates (and note that the Wilcoxon sign-rank test gives similar p-values to those reported here). The matched pairs t-test is the most accurate way to display these data because it accounts for the paired structure of the data. Given the small sample size of 15 pairs, we do not over-interpret these suggestive results, but only point out a few findings of interest.

For features of question reading, we see that a particular type of verification that includes an explicit request for confirmation (e.g., “you said your husband is that correct?”)—which WLS

interviewers were trained to use if necessary—occurs more frequently with respondents that end up as future participants versus nonparticipants, as does exact question reading (reading the question exactly as worded; this is discussed in more detail in the manuscript). However, prefacing the reading of the question with a particle such as “and,” “then,” or “so” occurs more frequently with future nonparticipants. Although we had characterized such linkages as dimensions of responsiveness, it is plausible that such linkages are occasioned by properties of the interaction that signal a lack of engagement, for example, by requiring interviewers to keep the floor so as not to be cut off. Our results also highlight the importance of considering the sequential placement of utterances; requests for confirmations and particles (e.g., “and,” “then,” or “so”) show varying associations with future participation depending on whether they occur with question reading or as part of a follow-up action.

We note that this analysis cannot determine whether it is the behavior of the interviewer-- or the behavior of the respondent that occasions the interviewer's behavior-- that is associated with future participation (or nonparticipation). For example, the analysis shows that interviewers use mitigating utterances or reciprocate the respondent's invitations for laughter more frequently with future nonparticipants than participants. We speculate that this may be due to behavior by the respondent (e.g., utterances signaling impatience, speaking quickly, flat affect or tone) that occasions these responsive interviewer practices. Related to this, it is interesting to note that one behavior that occasions responsive behavior from the interviewer—a respondent's apologetic utterance—occurs slightly more frequently with future nonparticipants compared to participants. Overall, some of the responsive behaviors observed here may be due to resistance from respondents that interviewers cannot overcome, no matter how the interviewer responds.

We further note that we cannot say anything definitive about the frequency with which these behaviors occur with different types of questions given the structure of these data and the small sample size. However, we have noted trends that we observed in our description of the interactions. For example, respondent's anticipatory answers (e.g., "my husband") tend to occur with yes/no filter questions that govern a follow-up action asking for a specification (e.g., "is there anyone else with whom you have discussed these preferences and plans?"), and verifications from the interviewer tend to occur in the question following these anticipatory answers. A systematic analysis of which types of questions these and other behaviors align with is an important next step for future research with more cases and a broader set of questions.

Table 1. Results from coding of behavioral expressions of responsiveness and engagement, 15 matched pairs of participants and nonparticipants in the subsequent request for saliva sample

Behavior	Mean # Among Future Participants	Mean # Among Future Nonparticipants	Mean Rate Among Future Participants	Mean Rate Among Future Nonparticipants	T-test (P- Value) ^a
<u>Interviewer events in question reading</u>					
Verification and confirmation request (e.g., "you said your husband is that correct?")	0.33	0.07	0.01	0.00	0.046
Question reading prefaces: "and" "then" "so"	7.80	11.53	0.34	0.56	0.039
Exact question reading	16.80	14.13	0.79	0.71	0.113
<u>Interviewer events in follow-up</u>					
Repeat or paraphrase R's codable answer	2.87	1.67	0.13	0.08	0.348
"Would you say" and variants	1.13	0.87	0.05	0.04	0.465
Follow-up prefaces or suffixes "and," "then," "so"	2.13	1.27	0.09	0.06	0.304
Directive probe following uncodable answer	0.73	0.93	0.03	0.04	0.612
<u>Interviewer events anywhere in interaction</u>					
Acknowledgments	16.60	15.47	0.75	0.76	0.934
Apologetic utterances ("sorry")	0.27	0.53	0.01	0.02	0.450
Other mitigating talk (e.g., "just," "I guess," "maybe")	0.93	1.73	0.04	0.08	0.100
Reason for INT deviating from survey task or conversational practices	0.40	0.53	0.02	0.02	0.632
<u>Interviewer & respondent events anywhere in interaction</u>					
Any overlapping talk	5.60	4.80	0.25	0.22	0.778
<u>Respondent events immediately after question reading</u>					
Contains complete or implicitly codable answer in first answer turn	16.27	15.73	0.77	0.79	0.649
Double answer (e.g., "yes yes")	0.13	0.20	0.01	0.01	0.536
Restating part of question in answer (e.g., "I haven't discussed it")	2.27	1.33	0.10	0.06	0.280

Anticipatory answer	0.87	0.53	0.04	0.02	0.369
Any interruption in INT question reading	1.00	1.13	0.04	0.05	0.772
Interrupting INT question reading of repeat questions with codable answer	0.20	0.20	0.03	0.03	0.809
<u>Respondent events anywhere in interaction</u>					
Acknowledgments	0.40	0.07	0.02	0.00	0.253
Continuer token	1.07	0.87	0.05	0.04	0.857
Apologetic utterances (“sorry”)	0.00	0.33	0.00	0.01	0.020
Any question or request	0.13	0.27	0.01	0.01	0.406
Grappling with topic or question (any report or marker of uncertainty)	4.60	3.53	0.21	0.18	0.598
R laughter, laugh token, or joke followed by INT laughter or laugh token in next turn	0.13	0.40	0.01	0.02	0.088
R laughter, laugh token, or joke NOT followed by INT laughter or laugh token in next turn	0.73	0.93	0.03	0.04	0.646

^a Matched pairs t-test of mean differences in rates

Our coding scheme complements those developed by others in terms of describing the content of utterances and, to a certain extent, the placement of utterances (see, e.g., Conrad et al. 2013; Dijkstra 1999; Dijkstra and Ongena 2006; Dykema, Lepkowski, and Blixt, 1997; Dykema and Schaeffer 2004; Garbarski, Schaeffer, and Dykema 2011; Schaeffer and Dykema 2011; Schaeffer et al. 2008; Schaeffer et al. 2013; Schober et al. 2012; Schober and Bloom 2004; Schober, Conrad, and Fricker 2004). These coding schemes and ours have in common attending to content of utterances—even the most micro utterances such as what have been called “fillers” or “disfluency tokens”, e.g., “um,” “uh”—as well as the placement of utterances such as whether there is overlapping speech and whether the content of a given utterance responds to a prior utterance. However, our coding scheme differs from these others in its focus on the dimensions of responsiveness and engagement identified in the qualitative, descriptive analysis. Thus, like several of the coding schemes noted above, we coded a more narrow set of behaviors than would a study focused on describing all facets of the interaction during question-answers sequences across a variety of types of survey questions.

Table 1 highlights the tradeoffs of moving from a qualitative description to applying a coding scheme that quantifies dimensions of responsiveness and engagement. For example, our description of question-answer sequences in the preceding sections discusses responsiveness and engagement simultaneously; the codes are mainly actor- and utterance-specific, although it is possible to combine these codes into sets of codes or patterns. Earlier we described the multiple actions that a given behavior can perform (as illustrated by verifications) or the multiple types of behaviors that can perform a given action; similarly, some sets of behaviors might be responsive in some contexts and unresponsive in others. However, coding is most reliable when behaviors are identified by clear rules and uniquely associated with concepts. Coding requires decisions

about the categories or dimensions into which a behavior or set of behaviors should be coded, and our coding scheme is based on behaviors that are observed, rather than the forces that underlie them. We consider sequential organization in our descriptive analysis, and like prior coding schemes, we developed various codes that encompass the sequential nature of utterance (e.g., coding an utterance as a response to the prior utterance, coding “and” as preceding or following a specific utterance, etc.). However, specifying how actions depend on context (that is, rules to specify when an utterance is responsive or engaged) quickly becomes complex, in order to deal with the many exigencies and peculiarities arising in talk. (A coding manual that describes the coding scheme is available upon request.)

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