

AN INTERACTIONAL MODEL OF THE CALL FOR SURVEY PARTICIPATION ACTIONS AND REACTIONS IN THE SURVEY RECRUITMENT CALL

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Abstract Previous research has proposed that the actions of sample members may provide encouraging, discouraging, or ambiguous interactional environments for interviewers soliciting participation in surveys. In our interactional model of the recruitment call that brings together the actions of interviewers and sample members, we examine features of actions that may contribute to an encouraging or discouraging environment in the opening moments of the call. Using audio recordings from the 2004 wave of the Wisconsin Longitudinal Study and an innovative design that controls for sample members' estimated propensity to participate in the survey, we analyze an extensive set of interviewers' and sample members' actions, the characteristics of those actions, and their sequential location in the interaction. We also analyze whether a sample member's subsequent actions (e.g., a question about the length of the interview or a "wh-type" question) constitute an encouraging, discouraging, or ambiguous environment within which the interviewer must produce her next action. Our case-control design allows us to analyze the consequences of actions for the outcome of the call.

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Introduction

For the past two decades, a series of conceptual frameworks or models of the survey interview have proven very productive in guiding a substantial body of research about the role of interviewers in recruiting sample members to participate in interviews. In experiments using face-to-face studies, the interviewer has been shown to contribute more to variance in response rates than does geographic area (O'Muircheartaigh and Campanelli 1999; Schnell and Kreuter 2005). When there is interviewer variance in survey reports, that variance may be due to nonresponse as well as to measurement (Biemer 2001; West and Olson 2010; see also Couper [1997]). The direct evidence that interviewers' actions influence participation is sparse and does not indicate which specific actions might be effective (Campanelli, Sturgis, and Purdon 1997; Schaeffer, Dykema, and Maynard 2010). Nevertheless, researchers attempt to increase participation by training interviewers to tailor responses to fit sample members' concerns (Groves and McGonagle 2001) or by changing interviewers (and thereby changing approaches) if the first interviewer is unsuccessful in obtaining an interview (Groves et al. 2004, p. 194).

One of the earliest conceptual models of recruitment (Groves, Cialdini, and Couper 1992) had a social psychological flavor: "We contend that an understanding of the interaction between respondent and interviewer, and of the behaviors, attitudes, and expectations each brings to the interaction, are critical elements in the development of a theory of survey participation" (p. 479). A social psychological perspective is also apparent in subsequent models of a sample member's decision to participate (e.g., Couper and Groves 1992; Groves and Couper 1996) and of the interviewer's attempts to persuade (e.g., Groves and Couper 1996, 1998). Leverage-saliency theory, a variant of rational

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actor theory, is a more recent formulation of the sample member's decision to participate that considers, for example, how features of survey design such as incentives might interact with predispositions of the sample member in the decision (Groves, Singer, and Corning 2000).

Empirical studies of the initial interaction between interviewer and sample member have been based on reports from interviewers about the interaction (Groves and Couper 1996; Snijkers, Hox, and de Leeuw 1999; Bates, Dahlhammer, and Singer 2008), audio recordings that capture the talk between interviewer and sample member (Morton-Williams 1993; Maynard and Schaeffer 1997, 2002a, 2002b; Dijkstra and Smit 2002), or both (Campanelli, Sturgis, and Purdon 1997). Researchers study interaction to understand how to improve interviewers' recruiting methods. There is also the hope that the interaction might provide more information about both respondents and non-respondents to use in post-survey response-propensity adjustments (as implied by Groves and Couper [1996]) than the relatively limited information in most sample frames (e.g., Lin, Schaeffer, and Seltzer 1999).

The role of the response propensity that the sample member brings to the contact with the interviewer, and how that propensity might be modified (or not) over the course of the encounter, has been largely implicit (e.g., it presumably affects the leverage that a feature of the survey design has with a sample member, but see Abraham, Helms, and Presser [2009]). In part this is probably because it is difficult to devise ways to incorporate these propensities into practical study designs or analysis, and research has not yet described how these propensities are enacted by sample members. In a previous study, we applied conversation analytic methods to a small sample of 108 telephone calls made to recruit participation in telephone interviews conducted in the 2004 wave of the Wisconsin Longitudinal Study (WLS) (Maynard, Freese, and Schaeffer 2010). We proposed that the sequence of actions by a sample member—some of which respond to actions of the interviewer—constitutes an interactional environment. This interactional environment can be “encouraging,” “discouraging,” or “ambiguous”—where these terms refer to features of the interaction rather than to psychological states. A sample member's actions can be encouraging (e.g., volunteering to be interviewed before the interviewer can ask, as do two sample members in the analytic subsample we describe later); discouraging (e.g., resisting even before the interviewer makes a request); or ambiguous—that is, not obviously encouraging or discouraging (presumably to the interviewer as well as to the analyst). Our analysis described declinations that occur before the interviewer explicitly requests participation as “blocking declinations” (Maynard and Schaeffer 1997; Maynard, Freese, and Schaeffer 2010; see also “premature objections” discussed by Dijkstra and Smit [2002], p. 133). The identification of a blocking declination requires attending to the sequential placement of the sample member's declination with respect to the interviewer's request and thus grows directly out of an interactional analysis.

In this paper, we develop an interactional model of the recruitment call that incorporates actions of both interviewer and sample member. Our design selects a subset of cases from a large longitudinal study. To replicate features of a case-control study, we match cases that have a similar estimated prior propensity of participating when we estimate the consequences of actions for participation. Our conversation analysis of the recruitment call informs both our model and our coding system. Thus, our study combines qualitative and quantitative methods with an unusual study design.

An Interactional Model of the Recruitment Call

Figure 1 illustrates the principal phases of the call (opening, study description, the request to participate) when the sample member answers the telephone and the actions that make up those phases.¹ Our model is interactional in two ways: It includes both interviewers (INT) and sample members (SM), and it focuses on actions that both parties can observe. We identified these actions and their sequence using a conversation analysis of a small sample of calls (described below) and previous research (e.g., Groves and Couper 1996; Campanelli, Sturgis, and Purdon 1997; Dijkstra and Smit 2002). Actions within a box often occur together, and participants appear to orient to them as a coherent sequence. The arrows show paths to the three resolutions: blocking declination, acceptance, or declination. In actual calls, the order of actions varies, and some actions are omitted or occur multiple times. Sample members may say nothing until after the interviewer requests participation, interject with questions at one or more points in any phase of the call, or produce a blocking declination, which ends the call.

Figure 1 suggests that there are sites at which the trajectory of the call may change—for example, because of a blocking declination. Because of the structure and limitations of our data, we focus on actions before a specific point in the call's actual trajectory, that is, before either the sample member produces a blocking declination or the interviewer delivers the request for participation (after which the sample member may decline or not), which we label the turning point. Before this point, sample members' opportunities to express their underlying propensities to participate and interviewers' opportunities to deploy their skills are as comparable as possible. After this point, it becomes even more difficult to compare cases that end in blocking declinations with those that proceed to the request because there are no data for sample members who produce blocking declinations, and the remaining sample that receives the request is both greatly reduced and highly selected.

Our hypotheses are about how the characteristics and placement of actions are associated with survey participation. First, we predict that formal or polite actions

1. Appendix A contains information about advance letters and the interviewer script for the call.

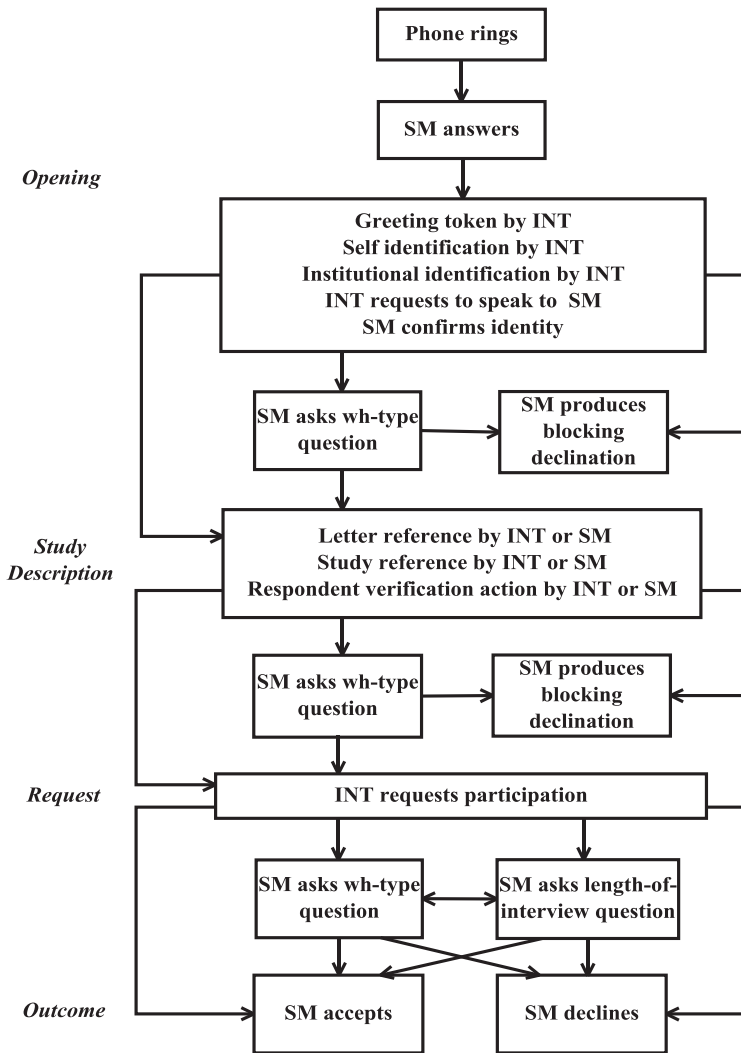


Figure 1. Actions by Interviewer and Sample Member in the Call for Participation When the Sample Member Answers the Telephone.

by interviewers and encouraging actions by sample members will be associated with acceptance. We recognize that an encouraging environment may express the sample member’s underlying propensity to participate and provide the interviewer more opportunities for actions (Maynard, Freese, and Schaeffer 2010). For example, if a sample member hangs up while the interviewer is identifying herself, that action expresses a very low propensity to participate and allows the interviewer little chance to be polite. Thus, beginning with the interviewer’s

opening sequence, we predict that a more formal greeting token (“Hello”) and self-identification (“My name is Sarah Smith”) and a polite request to speak to the sample member (“May I please speak to Mary Donovan?”)² will all be associated with acceptance. Furthermore, additional conversation analytic studies (Maynard and Hollander 2012) indicate that the placement of the interviewer’s identification before the request to speak to the sample member is important in crafting a polite opening. Based on these results and Maynard, Freese, and Schaeffer (2010, pp. 809–10), we predict that when the interviewer self-identifies before asking to speak to the sample member (“Hello. My name is Sarah Smith, and I’m calling from the University of Wisconsin Survey Center. May I please speak to Mary Donovan?”), there will be an increased chance of acceptance.

If the call continues, we predict that the following actions are associated with the sample member’s propensity to participate and therefore with acceptance: (1) the sample member initiates a reference to the advance letter that was sent to sample members explaining the study, (2) the interviewer is able to complete a description of the advance letter that corresponds to the script on the screen, and (3) there is talk by either party that is oriented toward the interviewer’s projected request.

A question by a sample member is specifically identified by previous investigators as associated with increased likelihood of participation (Groves and Couper 1996, pp. 78, 82). However, our conversation analysis distinguished two kinds of questions: (1) wh-type questions, and (2) queries about the length of the interview. These two types of questions are actions with different likely sequelae—“who” or “what” questions may be followed by attempts to explain the study in persuasive ways, but inquiries about the length of interview may evoke “optimistic” attempts to mitigate its burden (Maynard and Schaeffer 2002a). Therefore, we first examine whether sample members’ questions are associated with acceptance of the request, then consider the difference between the two types of questions we identified.

Finally, elements of utterances may themselves function as actions. Laughter, for example, can both offer and reciprocate affiliation (Lavin and Maynard 2001), so we coded both stand-alone laughter and laugh tokens in other actions. “Mitigators” are words or phrases (such as “maybe,” “I guess,” “sort of”) that act to temper some element of an utterance (Garbarski, Schaeffer, and Dykema 2011). We expect that interviewers use mitigators to minimize intrusiveness or burden or increase the politeness of their actions (e.g., “We’re just calling to ask if you might be able...”), and sample members to express caution about participating (e.g., “I just don’t know if I want to”).

We distinguished three other types of tokens: continuers such as “uh-huh,” which can indicate co-presence and allow a speaker to continue (Schegloff 1981); acknowledgments such as “okay” (Beach 1993), which mark topic or

2. Names and other potentially identifying information in transcripts and examples have been changed.

other transition; and disfluencies such as “uh” or “um” (Bortfeld et al. 2001). Disfluencies may display processing by the speaker, perhaps searching for the right word or for a polite way to refuse, or may serve to delay a dispreferred element such as a refusal (Pomerantz 1984). We counted mitigators, continuers, and disfluencies that occurred between or within actions that occurred before the first turning point.³ We expect each of these elements to be associated with acceptance both because of their content (as just described) and because their presence shows that the interaction continues.

Data and Methods

We analyze calls from the 2004 round of the Wisconsin Longitudinal Study (WLS). WLS began with a one-third sample of 1957 Wisconsin high school graduates and followed up in 1964 (mail to parents), 1975 (telephone), 1992 (telephone and mail), and 2004 (telephone and mail). WLS collects a wide range of economic, familial, health, and other information (Hauser 2005).⁴ Because we have considerable information about all sample members fielded in 2004, WLS provides an exceptional opportunity for our investigation.

As in some previous work (for example, Garbarski, Schaeffer, and Dykema 2011), we used conversation analysis of a sample of approximately 100 cases to develop our coding system. Our codes incorporate an analysis of the behavior and utterances of the participants as a set of actions (see Schaeffer and Maynard 2008), and identified features of actions that might affect subsequent interaction and the outcome. Figure 1 shows the principal actions of the 41 actions we coded. We also coded characteristics of most actions, such as the form of address used in the request to speak to the sample member. The number of actions coded per call ranged from 6 to 110 (mean = 31.9, median = 30). The average number of actions per interviewer (24.6) was about twice that for sample members (12.6). Details about intercoder reliability are in appendix B.

This study is part of a larger project using both conversation analytic and quantitative methods in order to estimate the effects of interaction between interviewers and sample persons on survey participation. Because the transcription and coding are very detailed, our analytic subsample is necessarily modest in size. Therefore, we selected successful and unsuccessful calls to be as comparable as possible before the call. To achieve this, we use a case-control approach in which acceptances may be considered “cases” and declinations “controls.” Pairs of calls, one declination and one acceptance,

3. Some specific actions are shown in figure 1; all but a few rare actions are listed in more detail later in table 3.

4. The 1964 data collection had an 87-percent response rate; the 2004–2005 round of interviews with graduates interviewed 80 percent of the living members of the original sample (http://www.ssc.wisc.edu/wlsresearch/documentation/retention/cor1004_retention.pdf). All interviews were conducted in English at whatever telephone number (usually a landline) the respondent provided.

were matched on pre-call characteristics. Although propensity-score matching is usually associated with estimating the propensity of exposure to a treatment variable, here, matching on propensity of the outcome based on pre-call characteristics is used to achieve case-control groups that are balanced in expectation on these characteristics. Doing so is also consistent with the interest of survey methodologists in the influence of sample members' predispositions. Thus, our analytic subsample cannot be used to estimate the effect of these pre-call characteristics on participation, as by design in our analytic subsample these characteristics and the outcome are uncorrelated.

Because WLS is longitudinal, we have considerable information to use in matching acceptances and declinations (see appendix C for details). We first estimated a logistic regression model of acceptance of the request. Predictions from this model were treated as an estimate of the propensity of individuals to participate in the survey. The logistic regression model had a McFadden pseudo R^2 of .17. We divided the sample into groups based on sex and past record of WLS participation, so that pairs matched exactly on these variables. Within these groups, we matched each declination with the acceptance with the closest estimated propensity (proceeding in random order and breaking ties randomly). The analytic subsample for the main project thus consists of 257 pairs (514 calls). The resulting set of cases simulates features of a case-control design in which the outcome is acceptance of the request.

For our analysis, we examine how certain features of the interaction during the recruitment call affect the odds of accepting the request to participate. We perform bivariate conditional logistic regressions of acceptance on each interviewer or sample member action of interest because our data are case-control matched pairs. A conditional logistic regression estimates the association between the within-pair action of interest and acceptance and "conditions" out of the analysis the intercept for each pair. The sample size may vary for each bivariate odds ratio because a conditional logistic regression will be estimated for cases only where both interactions in a pair contain information about the presence or absence of the action of interest (e.g., any versus no wh-type question is analyzed for all pairs, but analyses of features of the interviewers' requests to participate are restricted to the pairs where both interactions include an interviewer's request to participate). If an action of the sample member or interviewer is not associated with acceptance, then the number of acceptances and declinations will be equal, that is, the odds ratio will be one. Because of our small sample size and because we want to identify avenues for future investigation, we report specific p -values, and we discuss relationships that are significant with the relatively generous $\alpha = .10$. In addition, although we describe our analytic subsample at various points, these descriptions cannot be applied to the WLS sample as a whole (for which acceptances far outnumber declinations) or to the population from which the WLS was drawn.

Results

We use the sequence of actions in [figure 1](#) to organize the presentation of results.

PROGRESS THROUGH THE CALL OPENING

[Table 1](#) shows how our analytic subsample progresses through the call by the outcome of the call. The table cannot retain the pair structure of the analytic subsample. Although the message of the table is somewhat tautological, it conveys some of the challenges of studying the impact of the interviewer’s actions. Of the 57 cases in our analytic subsample who started the opening sequence but went no further, all, obviously, declined; of the 99 who started the study description but went no further, 95 declined; but of the 358 who got to the request for participation, 253 accepted. Clearly, as noted by [Sturgis and Campanelli \(1998\)](#), in many cases there are only limited opportunities for the interviewer to influence the outcome. This would appear to be the case for the 57 early blocking declinations and perhaps also for the 95 blocking declinations in which the study description (which indicates the purpose of the call) was started or completed.

[Table 1](#) emphasizes the impact of the sample member’s propensity to participate and how that propensity might limit opportunities for interaction and thus affect the number of actions that occur. This impact of the sample member’s inclinations on the selectivity of the sample affects all research in this area, regardless of the study design. Given our attention to the sequence of actions in our transcription and coding of the cases as well as our analytic strategy, we can describe in some detail where this selection occurs and how. Even though our analysis focuses on the interaction before many with the lowest propensity to participate exit, the sample member’s propensity influences the quantity and character of the actions of the interviewer as well as those of the sample member.

THE INTERVIEWER’S OPENING SEQUENCE

Even in the first moments of the call, more formal or polite actions are associated with increased odds of acceptance as predicted ([table 2](#)). In the initial

Table 1. Sample Members’ Progress through the Call: Number of Cases That End Call Relative to a Given Point

Declination or acceptance occurs...	Outcome	
	Declination	Acceptance
During opening	57	0
During study description	95	4
After request for participation	105	253

Table 2. Bivariate Logistic Regressions of Acceptance on Features of Interviewer's Actions in the Call Opening

Action	Feature of action	<i>N</i> ^a	Odds ratio	<i>p</i> (2-tailed)	95% CI	
					Lower	Upper
Greeting token	Hello (vs. hi)	504	1.44	0.06	0.99	2.11
Self-identification	First and last name (vs. first name only)	432	1.25	0.27	0.84	1.86
Institutional identification	Mentions UW Survey Center (vs. not)	508	1.26	0.19	0.89	1.79
	Mentions University of Wisconsin (vs. not)	508	0.90	0.54	0.64	1.27
	Mentions Wisconsin Longitudinal Study (vs. not)	508	0.91	0.59	0.64	1.29
Request to speak to sample member	Very polite (vs. not)	270 ^b	1.60	0.07	0.97	2.64
Order of interviewer identification and request to speak	Interviewer identification first (vs. second)	270 ^b	1.80	0.04	1.04	3.11

^aIn analyses of features of actions, pairs where one or both of the interactions do not include the action of interest are omitted.

^bPairs in which a third party answered the telephone for either pair member are omitted.

greeting and introduction, when the interviewer uses “hello” (rather than “hi” or some other token), the odds of acceptance are higher ($p = .06$); introducing herself with both first and last name (rather than just first) is in the expected direction but below the level of statistical significance ($p = .27$). Very formal or polite requests to speak to the sample member—those that include “may I,” “please,” and the sample member’s first and last name or title plus last name (e.g., “May I please speak with Mary Donovan?”)—have increased odds of acceptance ($p = .07$) compared to requests that have zero, one, or two of these elements. The placement of elements in the opening is also important. The largest estimated effect is that for the interviewer providing her institutional or self-identification before asking to speak to the sample member ($p = .04$).⁵ Overall, it appears that being more “formal” in the call opening is more effective than being more “casual” (Maynard and Hollander 2012).

5. All but three cases in our analytic subsample had an institutional identification, and none of the three forms that interviewers use (UW Survey Center, University of Wisconsin, or Wisconsin Longitudinal Study) has a clear advantage over the other two.

SPECIFIC ACTIONS AND FEATURES OF ACTIONS

In [table 3](#), we consider first the specific actions of the interviewer and sample member before the first blocking declination from the sample member or the first request to participate by the interviewer. We show results for both the number of actions and whether the event occurred at all, as appropriate. The former carries more information, and the latter is more comparable across interactions of varying lengths. The first action shown, referring to the advance letter, can be examined only for interactions in which the reference appears, and the same is true for descriptions of the study. For the interviewer, an action referring to the letter is usually a question about whether the sample member received the letter, and for the sample member, it is usually a comment about receiving the letter. An interviewer can refer to the advance letter early in the call to claim the call's legitimacy as part of a scientific inquiry and explain the inquiry. Wording to use in describing the letter and the study appeared on the relevant screens, but interviewers were not required to use the wording verbatim (see [Houtkoop-Steenstra and van den Bergh \[2002\]](#)). Nevertheless, when they did, that wording was significantly more effective than a more improvised version for references to both the letter and the study description ($p < .01$). For the sample member, the odds of acceptance are higher if there was any mention of the letter that was not prompted by the interviewer (e.g., "Oh, I got the letter"), though the association is not statistically significant ($p = .18$).

There are a few other actions that occur in the brief opening. The presence of other talk during the introduction (e.g., "Can you hear me?") on the part of either the interviewer or the sample member is not associated with acceptance of the request to participate at even permissive levels of statistical significance. A full turn of laughter by sample members that could be coded as a separate action is too rare to be analyzed (13 instances), and all occurred with acceptances. When sample members embed laugh tokens in other actions, the odds of acceptance are higher, although not significantly so ($p = .15$). However, when interviewers laugh ($p < .01$) or embed laugh tokens in other actions ($p = .02$), it is in interactional environments in which the odds of acceptance of the request are substantially and significantly higher.

We also identified other features of actions that might foreshadow the outcome of the call by displaying the ambivalence or involvement of the sample member or the interactional skills or responsiveness of the interviewer. We included as "mitigators" phrases such as "just" or "might" that reduce the demanding quality of an interviewer's request or the strength of a sample person's complaint. For example, the interviewer might say, "We're just calling to see if you might be able..." or the sample member might say, "I just don't know what the reason is to do this." Similarly, when sample members utter "continuer tokens" such as "mm-hmm," they

Table 3. Bivariate Logistic Regressions of Acceptance on Features of Actions by Sample Member and Interviewer, Actions before Turning Point

Actor	Action	Feature of action	N ^a	Odds ratio	p (2-tailed)	95% CI	
						Lower	Upper
Interviewer	Letter reference	Scripted (vs. not)	276	2.05	0.01	1.22	3.45
	Study reference	Scripted (vs. not)	202	3.58	0.00	1.89	6.80
	Ancillary talk	Any hearing checks, breaks, requesting repetition, or correcting sample member's information	514	1.50	0.28	0.72	3.11
Sample member	Laughter	Any (vs. none)	514	4.17	0.00	1.71	10.16
		Laugh tokens	514	2.71	0.02	1.14	6.46
	Mitigators	Any (vs. none)	514	3.21	0.00	2.10	4.91
		Number of mitigators ^b	514	1.41	0.00	1.20	1.67
	Continuer tokens	Any continuers (vs. none)	514	5.68	0.00	3.49	9.26
		Number of continuers	514	1.90	0.00	1.59	2.27
	Disfluencies	Any disfluencies (vs. none)	514	2.00	0.00	1.29	3.10
		Number of disfluencies ^b	514	1.14	0.00	1.05	1.23
	Letter reference	Unprompted (vs. prompted)	146	3.00	0.18	0.61	14.86
	Ancillary talk	Any hearing checks, breaks, requesting repetition, or correcting sample member's information	514	1.29	0.35	0.76	2.20

Continued

Table 3. Continued

Actor	Action	Feature of action	N ^a	Odds ratio	p (2-tailed)	95% CI	
						Lower	Upper
	Laughter	Any (vs. none)	514	All 13 instances of SM's laughter occurred with acceptances.	0.15	0.71	10.05
	Laugh tokens	Any (vs. none)	514	2.67	0.21	0.84	2.29
	Mitigators	Any (vs. none)	514	1.39	0.26	0.85	1.80
		Number of mitigators ^c	514	1.24	0.00	2.89	6.77
	Continuer tokens	Any continuers (vs. none)	514	4.42	0.00	1.63	2.56
		Number of continuers	514	2.04	0.67	0.72	1.66
	Disfluencies	Any disfluencies (vs. none)	514	1.10	0.11	0.96	1.58
		Number of disfluencies ^e	514	1.23	0.11	0.96	1.58

^aIn analyses of features of actions, pairs where one or both of the interactions do not include the action of interest are omitted.

^bThe number of mitigators is top coded at 4, and the number of disfluencies at 8.

^cThe number of mitigators is top coded at 2, and the number of disfluencies at 3.

pass an opportunity to refuse and allow the interviewer to continue toward the request; interviewers who deploy continuer tokens display attentiveness to the sample member. We find strong support for our prediction that the use of mitigators by interviewers is associated with increased odds of acceptance ($p < .01$). Results are also in the predicted direction for sample member's use of mitigators, but the effect is not statistically significant ($p = .21$ or $p = .26$). Our prediction that continuers would be associated with acceptance for both interviewers and sample members is strongly supported ($p < .01$ for both parties, regardless of specification). The disruptions in speech that we label as disfluencies (e.g., "And, um, we'd like to speak with you again. Um, do you have time today to maybe do a little bit of it?") are associated with acceptance for interviewers ($p < .01$ for both specifications). The relationship is in the same direction for sample members, with borderline significance for the number of disfluencies ($p = .11$) but not for the presence of any disfluencies ($p = .67$).⁶

ASKING QUESTIONS

Only a minority of sample members in the analytic subsample asked questions: 25 percent asked about length of interview, and 20 percent asked a wh-type question. (Appendix D shows the distribution of questions and examples of the different types of utterances that we considered questions.) Sample members may ask few questions because they are familiar with the study from previous contacts, the advance letter or interviewer gave them the information they might have wanted, or they do not want to prolong the interaction. Queries about the length of interview can be direct or indirect requests, with the latter characterizing statements that interviewers can respond to as requests (e.g., "Just so it isn't too long"). We labeled inquiries from sample members that were not about the length of the interview as wh-type, such as "Who's calling?" or "What is this about?" Our original class of wh-type questions was dominated by "who" and "what" questions, and we combine the small number of "other" (for example, "why") questions with them.

In the analysis in [table 4](#), we begin with the overall odds of acceptance when the sample member asks a question of any sort (the first row). Like other researchers (e.g., [Groves and Couper 1996](#)), we see that the odds of acceptance are higher when the sample member asks any question. Refining the analysis, we see that the predicted outcome depends on the type of question: The odds of acceptance are substantially and significantly higher if the

6. [Benki et al. \(2011\)](#) analyzed behaviors per turn, and our number of cases is much smaller. When we group our cases to reduce small cell sizes, we do not find evidence of a clear relationship between the number of disfluencies and the odds of participating (details not shown), and interpretation is complicated by the fact that disfluencies can both be a response to the interaction and influence its subsequent progress.

Table 4. Bivariate Logistic Regressions of Acceptance on Features of Questions from Sample Members

Feature	N	Odds ratio	p (2-tailed)	95% CI	
				Lower	Upper
Sample member asks at least one question	514	2.07	0.00	1.43	3.01
Sample member initiates statement or question about the length of the interview	514	5.44	0.00	3.19	9.27
Sample member asks at least one wh-type question	514	0.59	0.02	0.38	0.92
Sample member asks at least one wh-type question <i>before</i> the request to participate	514	0.35	0.00	0.20	0.61
Sample member asks at least one wh-type question <i>after</i> the request to participate	514	1.64	0.14	0.85	3.19

sample member asks about the length of the interview. But the odds are also substantially and significantly lower if the sample member asks at least one wh-type question.

The placement of questions may also foreshadow the outcome. In our analytic subsample, all questions about the length of interview follow the request for participation, so we cannot examine the impact of their placement. However, we have seen that some sample members who remain on the telephone long enough to hear the request are vulnerable to eventual persuasion. Thus, the pattern we see suggests that questions about the length of the interview are more often about scheduling the interview than about deciding to participate. The results for wh-type questions present a different picture, as shown in the last two rows of [table 4](#). Wh-type questions from the sample member that occur before the interviewer can deliver a request to participate are associated with substantially and significantly reduced odds of acceptance (that is, they foreshadow a blocking declination). In contrast, the odds of acceptance increase, though not significantly ($p = .14$), if the sample member asks a wh-type question after the request for participation. Thus, wh-type questions that appear before the request may be challenging, whereas those that come after may signal an opportunity for persuasion.

THE REQUEST TO PARTICIPATE

Studies of acquiescence suggest that a request generates some pressure for its acceptance (e.g., [Schuman and Presser 1981](#); [Schaeffer 1991](#)). Speakers

may increase the likelihood of acceptance by the way they formulate a request (Lindström 2005; Vinkhuyzen and Szymanski 2005; Heinemann 2006; Curl and Drew 2008). Yet the request for participation in a survey must solve several, somewhat conflicting, interactional tasks: claiming or demonstrating the right or entitlement of the interviewer to make the request; acknowledging that a favor is being requested by being polite or responsive; reducing the burden of the request so that it appears easier to fulfill; and making it more difficult to refuse (for example, by presuming the sample member will comply by making an assertion rather than asking a “yes/no” question). In addition, how the request is received by the sample member may depend on whether it occurs in an encouraging or discouraging interactional environment (Maynard, Freese, and Schaeffer 2010).

In table 5, we first examine how features of the request are associated with acceptance. The preface to the request can be low in entitlement (“I wonder if...”), moderate (“We would like...” or “We would love...”), or high (“Would...” or “Is...,” as in “Would now be a good time?”).⁷ As Nolen and Maynard (2013) show, the interviewer can attempt to reduce the burden of the request by adding the option of making an appointment to do the interview at a convenient time, rather than suggesting “now” as the only option. The interviewer can also reduce burden by offering to conduct the interview in multiple sessions. The script provided to interviewers—“We would like to interview you now for this important study”—is moderate in entitlement, offers only one option, and does not offer to partition the interview; it also presumes that the sample member is agreeable and presently available. The results in table 5 suggest that compared to a “wondering if” preface, both of the more strongly worded prefaces are associated with success, but the relationship is significant only for the strongest wording ($p = .33$ and $p = .05$). Keeping the level of burden high by offering only “now” and not offering to break the interview up both decrease the odds of success, but the relationship is not significant for the number of options ($p = .37$) and is of borderline significance for partitioning the task ($p = .09$).

The analyses in tables 3 and 4 together suggested that the interviewer’s request occurs in varied interactional environments. Behaviors of the sample member can be thought of as observable evidence of the evolving propensity to participate. As an indicator of an encouraging environment, we summed information about the events that we examined in tables 3 and 4 for sample members who received the request to participate: laughter or laugh tokens; unprompted references to the letter or study; use of continuers or mitigators. From this sum, we subtracted the number of wh-type questions and dichotomized the index into discouraging (negative or zero) and encouraging (1 or greater). The results in table 5 suggest that the overall configuration of an

7. Requests that are moderate in entitlement use “would” in an indirect request, which we interpret as more polite (Brown and Levinson 1987) than more entitled forms; those that are high in entitlement use “would” or “is” in a direct request.

Table 5. Bivariate Logistic Regressions of Acceptance on Features of the Request to Participate by the Interviewer and Features of the Environment Shaped by the Sample Member, Actions before First Turning Point

Actor	Action	Feature of action	N	Odds ratio	p (2-tailed)	95% CI	
						Lower	Upper
Interviewer	Request to participate	Request preface					
		We would like (vs. wondering if)	206 ^a	1.41	0.33	0.71	2.81
		Would/is (vs. wondering if)	206 ^a	2.33	0.05	1.01	5.38
		One option (vs. two)	206 ^a	0.76	0.37	0.42	1.38
		No task partitioning (vs. any)	206 ^a	0.61	0.09	0.35	1.09
Sample member	Environment	Encouraging (vs. discouraging)	514	4.04	0.00	2.67	6.10

^aIn analyses of features of the request to participate, pairs where one or both of the interactions do not include the request to participate are omitted.

encouraging or discouraging environment provides a very strong prediction of the odds of success ($p < .01$).

Our investigation of whether the outcome of the request varies depending on the environment in which it occurs is hampered by our small number of cases. We describe how the proportion of acceptances varies by the characteristics of the environment and features of the request to participate in table 6, but we test the relationships to the extent that we are able, using the odds ratios, as before. Turning to the panel that examines the impact of the interviewer’s formulation of the request, we see that the odds of acceptance in an encouraging environment are similar regardless of the preface. In a discouraging environment, on the other hand, the odds of acceptance increase as the entitlement in the request increases. It is possible that the more tentative formulation the interviewers use in some cases (e.g., “We were wondering if...”) responds to indicators of discouragement that we have not yet identified, so that the preface is an attempt by the interviewer to respond to the sample member’s discouragement. Looking at panels in table 6 that examine the effect of reducing burden, it appears that the offers have little impact in an encouraging environment but may be effective in a discouraging environment. Not surprisingly, given the sample size, tests for the interactions are not significant, with the exception of the contrast between “wondering if” and “would/is...,” which is greater in a discouraging environment ($p = .10$).

Table 6. Proportion (and Number of Cases) Accepting the Request to Participate by Type of Environment and Features of the Request to Participate^a

Environment	Preface of the request			Number of options offered		Task partitioning		Total
	Wondering if	We would like	Would/is	Two	One	Any	No	
	Discouraging	0.24 (34)	0.38 (37)	0.56 (18)	0.45 (31)	0.31 (58)	0.44 (41)	
Encouraging	0.56 (64)	0.65 (31)	0.68 (22)	0.61 (43)	0.61 (74)	0.63 (65)	0.58 (52)	0.61 (117)
Total	0.45 (98)	0.50 (68)	0.63 (40)	0.54 (74)	0.48 (132)	0.56 (106)	0.44 (100)	0.50 (206)

^aAnalysis includes matched pairs in which both members received the request to participate.

Discussion

Our approach makes several contributions. By using longitudinal data to control for the estimated propensity to accept, we estimate how features of the interaction may affect participation, taking into account prior characteristics of sample members that influence the outcome. We develop an explicit model of the interaction between the interviewer and sample member during the first few moments of the recruitment call (which reflects the contributions of prior researchers in addition to our own qualitative research), and we elaborate on this model by adding features of the call that have been overlooked. We use this model to refine our understanding of some actions (e.g., wh-type questions versus questions about the length of the interview) and to examine the impact of both the presence and sequential placement of specific actions (e.g., the placement of self-identification and of the wh-type questions) on the outcome of the call. We consider the influence of the actions of the interviewer within an interactional environment that is largely the creation of the sample member's actions.

These advantages come with limitations: Our sample size is small, and our sample members have substantial experience with our survey and our requests for participation. Thus, our sample and study design differ from others, such as a random-digit-dialing study of the general population, and the implications of these differences for our conclusions are unknown. Furthermore, because they are all 1957 high school graduates from Wisconsin, our sample is more homogeneous in various social characteristics than a national sample.

Despite our attempts to control propensity to participate before the contact, we cannot monitor how that propensity evolves during the contact with any precision. Thus, when we observe that in a discouraging environment the odds of participating are lower when the interviewer begins the request with “I was wondering if...,” we are still unable to say whether such a preface is ineffective or is the product of an interaction that is beyond repair.

Our findings reinforce and extend those of previous research. Dijkstra and Smit also found that reducing the burden of the request increased the likelihood of acceptance (2002, p. 125–27, 133). We refined findings from earlier studies (e.g., Groves and Couper 1996) about the predictive function of questions from sample members to take into account the content and placement of those questions. Questions about the length of the interview, particularly those that come after the request, are more likely to foreshadow acceptance. Wh-type questions, particularly those that come before the request, require high levels of skill from the interviewer. Some substantive findings have immediate practical implications that could be examined in experiments: The analysis clearly indicates that interviewers should begin the call by introducing themselves (as they are trained to do). Similarly, interviewers may be advised to make an offer like partitioning the task (Nolen and Maynard forthcoming), which may carry an increased risk of a partial interview, only if the environment is discouraging.

Overall, our analysis suggests that we should pay more attention to how actions of the sample member shape the interactional environment. A sample member’s propensity to accept may be a principal engine of the interactional environment that an interviewer encounters and may render the interviewer’s finest skills or occasional lapses irrelevant. A focus away from interviewers’ practices and toward sample members’ vocalizations of their turns of talk extends notions of tailoring to incorporate ways of expressing as well as the substance of sample members’ concerns, and renders the analysis as truly interactional rather than one-sided (see Couper and Groves [2002]). Findings from such analysis potentially help identify a range of skills to which training has not yet attended. Our observations lead us to two proposals.

First, it may be possible to train interviewers to recognize that a blocking declination is imminent—for example, when a sample member produces a wh-type question before a request to participate or does not produce continuers or encouraging actions at appropriate points in the interviewer’s talk. In contrast to the “premium that interviewers place on avoiding termination of contact” and on reducing the likelihood of “no” (Groves and Couper 1996, p. 67), an impending blocking declination might require a “graceful-exit” strategy. An example of a situation that might call for a graceful exit is shown in the following excerpt. The female sample member (FSM) interjects that she is “not interested”—an objection that is rarely followed by acceptance in the same contact—before the female interviewer (FI) can explicitly request participation:

Excerpt 1

- (ring)(ring)(ring)(ring)(ring)(ring)
- FSM: Hello
- FI: Hi. Is Janet Weiss available?
- FSM: Yes, speaking.
- FI: Hi. My name's Mandy, and I'm calling back about the Wisconsin Longitudinal Study. Last time we talked with you you didn't get our letter. Did you get our letter in the mail?
- FSM: Yeah. I'm not interested.
- FI: Okay, may I ask why not?
- FSM: Eh, eh, no reason...
- FI: Um, it's a really important study, and we really don't wanna lose you, mm, mm...
-

“Not interested” and “no reason” give the interviewer few resources with which to tailor a persuasive response. The interviewer's response, “why not,” displays a challenging stance and can exhibit disaffiliation (Robinson and Bolden 2010). Furthermore, asking why may “[press] the householder into a decision prematurely” (Groves and Couper 1996, p. 69). In such situations, a graceful exit, particularly one that responds to the affect or content of the sample member's statement, may facilitate later refusal conversion efforts better than dogged pursuit in the current call. Of course, the effectiveness of such a procedure would require determining what skills interviewers need and experimentally testing the approach.

By responding with “why not,” this interviewer also neglects an opportunity to display tailoring or responsiveness of a different sort. Our second proposal is to consider the role of a particular sort of tailoring, which we label empathic responsiveness. (See Ruusuvuori [2005] and Heritage [2011] for examinations of empathy in doctor-patient interactions; see Broome [2012] for a related discussion.) This can be seen at work in excerpt 2:

Excerpt 2

- MSM: I don't know if I wanna continue in this or not. I don't know what's the point of continuing.
- MI: Oh. I'm sorry you feel that way, sir. Is there any particular reason you don't want to c-continue?
- MSM: Well, I don't know what's pertinent about it.
- MI: What's pertinent?
- MSM: Yeah. What do I get out of it? I mean what's t-good for me about it? You're just getting a lot of my information and stuff like that, and I don't know.
- MI: That's true. I mean, um, there is no direct compensation for it.
- MSM: Yeah.
- MI: Um, but it is a rather important study. The government thinks so. They're putting some money into it.
-

Even before providing substantive responses to the male sample member's (MSM) concerns, this male interviewer (MI) uses techniques similar to [Dijkstra's \(1987\)](#) "personal" style of interviewing, which motivated respondents to provide better-quality data, and to those employed in motivational interviewing ([Miller and Rollnick 2002](#); [Miller and Rose 2009](#))—affirming the other's position, using open questions, reflective listening, expressing empathy, discussing pros and cons of participating, avoiding argumentation when faced with resistance, and maintaining optimism about the desired outcome. The expressions of empathy and displays of taking the sample member's point of view place the request for participation within a developing system of interactional exchange and reciprocity. These techniques for responsiveness and interactional tailoring are interactional skills that can be taught.

We note additional areas for inquiry. One is the interactional environment that either leads to an initial blocking declination or permits the request to participate ([Maynard, Freese, and Schaeffer 2010](#)). The sample member's predispositions, the way those dispositions are expressed, and the responsiveness and strategies of the interviewer are likely to play important roles in influencing progress to the request to participate. Other topics suggested by our analysis are whether the wh-type questions that are followed by blocking declinations differ from wh-type questions that are followed by a request to participate—that is, do these questions constitute different interactional environments, one of which allows progress to the request to participate—and what strategies of interviewers are effective in each of these situations. Finally, the predispositions of the sample member and the actions of the interviewer in this initial contact with the sample member may have consequences for the success of refusal conversion in subsequent calls.

Appendix A. Interviewer Script for Recruitment Call in the 2004 Wave of the Wisconsin Longitudinal Study

WLS has maintained its relationship with sample members over the years both with survey requests (1957, 1964, 1975, and 1992) and by communications between waves of the study (in the form of reports sent in 1977 and 1995). For the 2004 round, sample members were mailed an advance letter that interviewers were able to refer to in their introduction.⁸ The study used a "flexible" introduction, which allowed interviewers to cover the elements of the introduction in an order that seemed appropriate to them ([Morton-Williams and Young 1987](#); [Morton-Williams 1993](#); [Houtkoop-Steenstra and van den Bergh 2002](#)). Interviewers were provided with a sample script as a model; the script included basic elements from which the interviewer could tailor or adapt an

8. The text of the advance letter is available as supplementary material for [Maynard, Freese, and Schaeffer \(2010\)](#) at the following website: <http://asr.sagepub.com/content/75/5/791/suppl/DC1>.

appropriate beginning depending on whether someone who was likely to be the sample member answered the phone. The labeling of the actions embedded in the script below corresponds to the labels used in [figure 1](#).

Hello [greeting token by INT], my name is INTERVIEWER'S NAME [self-identification by INT]. I'm calling from the University of Wisconsin Survey Center at the University of Wisconsin–Madison [institutional identification by INT].

May I please speak to SAMPLE MEMBER'S FIRST AND LAST NAMES [INT requests to speak to SM]? IF NEEDED IF SAMPLE MEMBER IS CALLED TO THE TELEPHONE: Hello [greeting token by INT]. My name is INTERVIEWER'S NAME [self-identification by INT]. I'm calling from the University of Wisconsin Survey Center [institutional identification by INT].

Is this the SAMPLE MEMBER'S FIRST AND LAST NAMES who was enrolled at NAME OF HIGH SCHOOL in 1957 [respondent verification action by INT]?

As you probably recall from our recent letter [letter reference by INT], we are doing a follow-up study of our sample of people who were Wisconsin high school seniors in 1957 [study reference by INT]. We'd like to interview you now for this important study [INT requests participation].

Appendix B. Coding System and Intercoder Reliability

To assess intercoder reliability, a random sample of 44 cases (comprising 1,351 actions) was independently coded by several coders and measures of inter-rater agreement were produced. Five project staff employed at the UW Survey Center served as coders, but because of turnover, most of the double coding was done by three coders. Using Sequence Viewer ([Dijkstra \[2009\]](#), <http://www.sequenceviewer.nl/>), Cohen's kappa over all actions and features of the actions that we coded is estimated as .838. According to [Fleiss, Levin, and Paik \(2003, p. 604, citing Landis and Koch \[1977\]\)](#), values of kappa greater than .75 indicate excellent agreement beyond chance; values between .40 and .75 indicate fair to good agreement; and values below .40 indicate poor agreement. This estimate of Cohen's kappa is probably conservative because Sequence Viewer calculates reliability at the level of the event, and the entire coded event (the set of code variables used to describe actions) and the order of actions are accounted for in the kappa statistic. Specific actions may have slightly different estimated values of kappa, but the number of cases can become small. As an example of the reliability of specific actions, the kappa for wh-type questions by the sample member is .833, whereas the kappa for length-of-interview questions initiated by the sample member is .922.

The level of reliability for the initial coding of mitigators was relatively low (.567). For the current paper, we recoded occurrences of mitigators before the turning point using an automatic coding system developed after this project was completed and using the specifications in the coding manual for this project (see [Dykema, Schaeffer, and Garbarski \[2012\]](#)). Because that coding is done by computer, it is perfectly reliable but will have less sensitivity to context or nuance than the work of human coders.

Detailed documentation of the coding system and details about the reliability analyses are available from the authors upon request (e.g., [Garbarski et al. 2009](#)).

Appendix C. Selection of the Analytic Subsample

In 2004, calls to WLS sample persons were digitally recorded, and there were 8,261 WLS sample persons for whom field efforts were made that did not result in the sample person being classified either as a noncontact or as incapable of participating. To ensure that the cases in our analysis had comparable histories of contacts with interviewing staff, we drew our project sample only from the 4,627 sample persons for whom the initial telephone contact with the sample person resulted in either a declination (some of which may have been converted to acceptances in a subsequent call) or an acceptance (some of which may have resulted only in partial interviews). Our analytic subsample thus underrepresents calls in which refusal “conversions” take place, because refusal conversions usually involve multiple calls and multiple interviewers. The percentage of acceptances among the total of acceptances and declinations among these 4,627 sample persons was 88.7 percent, which is similar to the cooperation rate for the WLS as a whole.

To draw the analytic subsample, we first estimated a logistic regression model of accepting the request to participate in the survey. Following previous work on survey participation in the WLS ([Hauser 2005](#)), the predictors in this model were sex, past record of participation (in the 1975 phone survey and the 1992 phone and mail surveys), education (high school only, some college, or college graduate), cognitive test scores from high school, high school class rank, and self-reported health status in the most recent wave (1992; coded as excellent, good, or fair/poor/very poor). Of these, all were significant predictors of acceptance as defined here except for gender, high school rank, and whether the sample member was not contacted for interview for the 1975 survey. See [Rubin and Thomas \(1996\)](#) for a discussion of including theoretically appropriate predictors that do not have statistically significant effects. The relatively long timespan between WLS waves means that a predictor like health status, although a significant predictor of participation, was probably not as closely linked to true propensity as if it had been measured more recently. Predictions from this model were treated as an estimate

of the propensity of individuals to participate in the survey. The resulting set of cases simulates features of a case-control design in which the outcome is acceptance of the request to participate in the interview. Among the limitations of the design is that we can match only on estimated propensity rather than true propensity, which is unknown. The logistic regression model had a McFadden pseudo R^2 of .17.

We used these propensities to match one call in which a sample person agreed to participate with one call in which a sample person declined. We divided the sample into groups based on sex and past record of WLS participation, so that pairs matched exactly on these variables. Within these groups, we matched each refusal with the acceptance with the closest estimated propensity (proceeding in random order and breaking ties randomly). Some re-matching needed to be done if the recording was missing or inaudible. All refusals with suitable recordings could be matched without exceeding a caliper corresponding to a change in the predicted probability of participating of .025. After we divided pairs into approximate tertiles based on their estimated propensity, we selected 100 pairs from the lowest third (with an estimated propensity corresponding to a probability of refusal of $<.2$), 100 pairs from the highest third (estimated probability of $>.35$), and 57 pairs of calls from the middle third. The analytic subsample for the main project thus consists of 257 pairs (514 calls).

We examined the effects of actions among all our cases as well as within each propensity "stratum." We also examined whether the influence of an action such as questioning interacts with propensity, that is, whether the odds of acceptance given the action of interest vary by propensity stratum. The effect of the action differed significantly across stratum for only one action, wh-type questions, and that effect was of borderline statistical significance. We find the possibility of this effect intriguing, but given the absence of other significant interaction effects and the number of tests conducted, we do not interpret it further.

Appendix D
Distributions of Number of Questioning Actions Initiated by Sample Members and Illustrative Examples of Each

Action initiated by sample member	Number of actions per sample member				Examples
	0	1	2	3 or more	
Length of interview—total ^a	389	112	11	2	as long as it doesn't take too long, depending how long it's gonna be, if it's more than 5 minutes I'm not gonna do it,
Length of interview statement	495	16	2	1	
Length-of-interview question	403	104	7	0	I don't know if can commit an hour I'll let you know how long does it take, is it lengthy, how many questions are in this thing, how long is this gonna take I'm right in the middle of my meal at the moment
Wh-type question—total ^{a,b}	411	77	15	11	who is this, who's calling, from who, who are you calling what is this about, what do you want, about what, what the heck is that, what kinda questions you gonna ask me
“Who” question	482	30	2	0	
“What” question	454	47	8	5	

Continued

Appendix D. Continued

Action initiated by sample member	Number of actions per sample member				Examples
	0	1	2	3 or more	
Other question	486	24	4	0	when you wanna do it, you don't do a survey in writing, may I ask how did you get my number, now can I refuse to answer some of the questions, how many of these did you send out

^aEach sample member appears only once in the "total" row for a type of question. But a sample member can appear in more than one of the rows that provide detail about the type of question. For example, a sample member may make one length-of-interview statement and one length-of-interview question, and would then be listed as having one action in each of these rows and as having two actions in the "Length of interview—total" row. Rows add to 514.

^bOne sample member asked "who" and "what" in the same action; this is part of the "what" panel in the above table. Only 7 sample members asked "why" questions; of these, 5 were classified as "other." Two sample members combined "why" and "what" questions in the same action, and these were classified as "what" questions in the above table.

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