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2019 Workshop: Interviewers and Their Effects
from a Total Survey Error Perspective

Sociology, Department of

2020

Chapter 13: Interacting with interviewers in text and voice interviews on smartphones. Appendix 13

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Appendix 13

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Full book reference:

Olson, K., J. D. Smyth, J. Dykema, A. L. Holbrook, F. Kreuter, B. T. West. 2020.

Interviewer Effects from a Total Survey Error Perspective. Boca Raton: CRC Press.

Appendix A

Example human text and voice interchange that includes clarification. Capital letters represent spoken emphasis; asterisks represented overlapping speech.

HUMAN TEXT	HUMAN VOICE
I: During the last month how many movies did you watch in any medium?	I: *During the last*
R: Medium?	R: Huh?
I: Here's more information. Please count movies you watched in theaters or any device including computers, tablets such as an iPad, smart phones such as an iPhone, handhelds such as iPods, as well as on TV through broadcast, cable, DVD, or pay-per-view.	I: Oh, sorry. Um, during the last month, how many movies did you watch in ANY medium.
R: Three	I: Oh! Let's see, what did I watch. Um, should I say how many movies I watched or how many movies watched me? [laughs] All right let's- let me think about that. I think yesterday I watched u:m, not in its entirety but you know, coming and going. My kids are watching in. Um, I don't know maybe two or three times a week maybe?
	I: Uh, so what would be your best estimate on how many, um, you saw in the whole month.
	R: [pause] Um, I don't know I'd say maybe three movies if that many.
	I: Three?
	R: Is that going to the movies or watching the movies on TV. Like you said *any medium* right?
	I: That's *any movies.* Yep.
	R: Maybe one or two a month I'd say.
	I: One or two a month? [breath] Uh, so what would be *closer*
	R: *Yeah, because* I uh, um, occasionally I take the kids on a Tuesday to see a movie, depending on what's playing. So I'd maybe

once or twice a month

I: Which would be closer, once or twice.

R: I would say twice.

I: Twice?

R: Mm-hm. Because it runs four Tuesdays which is cheaper to go

I: Right.

R: so I'd say twice, yah. Because I do take them twice. Not last month but the month before

Appendix B: Coding Manual

Code Variables

Code Variable 1: Actor

- I. Interviewer
- R. Respondent

Code Variable 2: Move

Respondent moves:

Answer current question in acceptable format (response fits one of the answer categories, see table with examples at the end of this section) or when R confirms an answer in response to Interviewer codes “p”, “u” and “x” where the Interviewer paraphrases, narrows or misrecognizes the options:

1. Exact match, in grammar of medium (which is IVR grammar for voice interviews, autoSMS grammar for text interviews): Surface feature matches with target, e.g., in voice a spoken number and nothing else (e.g., “ten”) and in text a single numeric expression such as “10” – not “10.” or “ten”); or in categorical questions, for voice, precise wording of response options and in text, the response option code, i.e., a letter, and nothing else.
2. Exact match, not in grammar of medium: “ten” for “10” in text, “A.” for “A” , or “1 im married” in sms modes because “1” is an exact match but the full string is not in grammar of medium; rare (possibly non-existent) in voice modes.
3. Synonym of a response option, in grammar of medium: “Daily” for “every day” in voice, “none” for “zero” (in voice)
4. Synonym, not in grammar of medium: “one or two” for “one or two times a week” or “neither” for “neither approve nor oppose”, “none” for “zero” (in text)

A (not used)

B Unacceptable answer. Ambiguous, partial answer (e.g., saying “favor” instead of “somewhat favor” or “strongly favor”); or answer that doesn’t fit category, including non-integers such as “4.5” or “half an hour”. Also use when R answers “5 days” when asked for number of times and conversely when R answers “5 times” when asked for number of days (even if Interviewer accepts the answer).

- other examples are:

R: 7 or 8?

R: 12 or more

R: 10+ (but 10+- is acceptable answer with a hedge)

R: 40 something

I: The next few questions are about everyday activities. How often do you attend religious services. At least once a week, almost every day, about once a month, seldom, or never.

R: U:h it’s very seldom (code as “B,” unacceptable answer)

- C Change in answer within a sequence (or earlier sequence), changed (new) answer is acceptable. For example, “For Q12, I meant 5.” In IVR mode, it also includes R confirms a misrecognized answer. For instance, R originally says “10”; system prompts as “Did you say 5, yes or no?”; then R replied says “yes”. R’s second move should be coded as “C”.
- D Change in answer within a sequence (or earlier sequence), changed (new) answer is unacceptable. For example, “For Q12, I meant 5+.”
- E Answer of "don't know" or "not sure" or variations such as "cannot remember"
- F Refuse to answer question (“skip”). In automated modes, this also includes a “No” answer to the system probe asking whether more info about the question would help (so a complete “skip” in auto modes requires two ‘F’ moves).
- G Request to end interview (“stop”)
- H Request repeat of survey question/present survey question for confirmation. Also includes when R asks about response options ("what are my options?" "could you repeat the answers")
- I Request definition or clarification (in auto-modes, say “help”). In automated modes, this includes a “Yes” answer to the system probe asking whether more info about the question would help (Note: This happened 7 times in auto-sms).
- J Report/describe circumstances which contain an implicit answer. See examples below.
 R: 24 if WalMart counts (report because interviewer is expected to determine the answer from the circumstances described)
 R: I don’t drink.
 R: I don’t read the newspaper.
- K Back channel, also known as active listening. Refers to when R uses short utterances to show they are listening to the interviewer. Back channels can look like filled pauses in the transcript, but the context reveals they are not. Common back channels are: mhm, hm, ah, uhuh, uh-huh. See Jans 2010 for more information on back channels. Also in text modes, code K is used when R says "Okay" after the Interviewer initially reads the complete question.
- L Confirm understanding in response to Interviewer providing question clarification (either giving definition or repeating question). Examples include: "Okay, got it" "Oh that's what you meant" "I see now". And this should be a standalone move/turn. Do not separate “Okay” and “Oh” into their own moves. If “Okay” is the entire turn, then code it as “Other”. Check to make sure this is not overlapping with back channel code.
- M Continuation of previous move/event after change of speaker (use, e.g., if respondent continues to give an answer after interruption by interviewer, but it isn’t a second answer but just a continuation)
- N Check connectivity (“are you still there?” “hello?”) or indicate transmission difficulty in text modes ("Question didn’t come through completely" "Still no question")
- O Other. Includes:
 • R saying or texting something that is not recognized. In text, this could include sending out-of-grammar characters, R typing a single question mark

- "?" with no other accompanying text, or blank texts; in voice this could include any utterance that the interviewer simply doesn't hear or understand
- Includes R's confirming interviewer's hearing or interpretation of what R said ("Right")
 - For Q8: In auto-text, R answering "D" or anything that maps to a 'D' answer such as "D." or "No partners" (this affects about 21 cases and 58 moves)
- P Request more time to search for answer (such as looking up number of songs or text messages on iPhone). See examples below.

R: Wow, a long time. I will need a few to calculate

I: The next few questions are about your IPHONE usage. How many songs do you CURRENTLY have on your iPhone.

R: Songs?

I: Yeah songs.

R: [pause] Would you like an exact answer I can look.

I: Yes.

R: Okay hold on. (code this as "P")

R: [long pause] 1000, 79.

- Q Critique system or interviewer ("Why can't you understand me?", "Why won't you answer?", swearing at system)
- R Critique or request for more information about the survey (as opposed to actual questions). Includes questions or comments about survey length, survey content (including comments on question topics or skip logic such as "Stupid question given previous response"), and survey purpose.
- S For Q31 and Q32: present same and acceptable answer as on prior asking (for Q31, Q2 [smoking]; for Q32, Q22 [newspaper]) (Note: If R changes answer within Q31 and Q32, still use just codes S, T, U, and V and not codes C and D)
- T For Q31 and Q32: present different but acceptable answer than on prior asking (for Q31, Q2 [smoking]; for Q32, Q22 [newspaper]) (Note: If R changes answer within Q31 and Q32, still use just codes S, T, U, and V and not codes C and D)
- U For Q31 and Q32: present same and unacceptable answer as on prior asking (for Q31, Q2 [smoking]; for Q32, Q22 [newspaper]) (Note: If R changes answer within Q31 and Q32, still use just codes S, T, U, and V and not codes C and D)
- V For Q31 and Q32: present different and unacceptable answer than on prior asking (for Q31, Q2 [smoking]; for Q32, Q22 [newspaper]) (Note: If R changes answer within Q31 and Q32, still use just codes S, T, U, and V and not codes C and D)
- W For Q12 acceptable answer: answer is one of the letter options (A, B, or C)
- X For Q12 acceptable answer: answer uses labeled response option (heterosexual or straight; homosexual, gay, or lesbian; bisexual)
- Y Q/A mismatch in SMS. Acceptable answer to a different (not current) adjacent question. For example, when R texts "5" twice and the second time its treated as another answer by the system.
- Z Q/A mismatch. Unacceptable answer to a different (not current) adjacent question.

5. For Q12 acceptable answer: answer uses the letter option in conjunction with the labeled response option (A. Heterosexual or straight)

Interviewer/system moves:

- a ask question exactly as worded
- include interviewer spoken utterances that include corrected disfluencies
 - include whether first time or repeat of full question. In IVR mode, re-ask question follows no-match prompt (Sorry I didn't hear you), no-input (Sorry I didn't get that), and definition.
 - in HV mode, for Q10 and Q11, interviewer must read parenthetical text
 - Include interviewer response to a request for help when there is no definition available and Interviewer reads the entire question again.
- b ask question with wording change or paraphrase
- includes asking only part of question
 - includes re-presenting questions or parts of questions
 - includes Interviewer confirmation of question when R asks about question wording, see example:
R: In the last month? (code as "H")
I: Yes. (code as "b").
 - include whether first time or repeat
 - includes paraphrase the question incorrectly (2 cases in human voice)
 - includes not inserting name in Q1 of human sms, for example: "{first name last name}"
- c ask question exactly as worded but does not read parenthetical text (applies only in HV mode for Q10 and Q11)
- d accept the answer ("okay," "got it," "thanks," "mm-hm" in response to an answer). Also includes when Interviewer repeats R's answer and it is clear that the Interviewer heard the answer correctly and isn't trying to confirm what they heard (that would be coded as "i").
- e state response alternatives, when this is the only thing in the turn or when presented as part of the question but was not scripted as such.
- f neutral probe ("whatever it means to you", "we need your interpretation", "let me repeat the question"—be aware of full set that SRO interviewers use). The only exception is a probe asking for best estimate, which should be coded as "w."
- g present **accurate** definition (full definition, scripted)
- h present **accurate** definition (partial or unscripted). Include interviewer confirmation in response to a question from the respondent about the survey question where the Interviewer references the definition (and not the question). See example below.
- I: How many apps do you currently have on your iPhone.
R: Do I count the ones programmed on there when I got it?
I: Yes. CODE AS "h"
- i present no match prompt. Including 1) global match prompt, "I didn't get that" without repetition; 2) global match prompt with repetition; 3) ask for

confirmation like “did you say three?” (For human interviewers, couldn’t understand what they heard – “what was that?” or “did you say three. Focus of this code for HV mode is on audio/difficulty hearing, see exchange below.)

R: Ah sel

I: Seldom? (code as "i")

- j request other information from R (that is NOT a standard Interviewer probe).
- includes when the Interviewer asks a question to see if R understands the question/needs a repeat
I: Do you understand the question?
I: Would you like me to read the options over?
 - includes when Interviewer asks R for more information about their response (watch for overlap with neutral probes)
I: In the last month, how many times did you eat spicy food.
R: Every day.
I: So for, numerical number that would be? (code as j)
 - Includes the automated skip probe: “...would it help if I gave you more information about the question?”
- k back channel not in response to an answer. If in response to an answer, code as "d" accepts answer. Interviewer may back channel to show they are listening when R gives a lengthy answer. Back channels can look like filled pauses in the transcript, but the context reveals they are not. Common back channels are: mhm, hm, ah, uhhuh, uh-huh. See Jans 2010 for more information on back channels.
- l encouragement about interview completion: “we’re more than halfway there”
- m continuation of previous move/event after change of speakers
- n present no input prompt (for human interviewers, check connectivity/didn’t hear anything—“are you still there?” "hello?")
- o other
- p paraphrase something respondent says and map a corresponding option for respondent. See examples below.
- R: U:h [pause] [xxx] probably 3 or 4 times a week.
I: [pause] So a few times a week. (code as "p")
R: Yeah.
- R: So maybe once or twice a year I go.
I: Uh, so you would say seldom? (code as "p")
R: Yeah, I seldom go but I do go.
- q move on prompt (for human interviewers, saying “let’s go on to the next question”)
- r Respond to survey related questions. For instance,
R: What's the point of this?
I: It's a study looking at how iPhones can be used in surveys.
- s Present **inaccurate** definition.
- t Ask previous question within a sequence. (e.g. in Q4, Interviewer went back to Q3 at the end of the sequence.)
- u narrowing of response options based on something R says (use when Interviewer does not read the entire set of answer options but instead chooses two or three to

- fit something R has said). Do not use when the Interviewer reads only the first few answer options but then is obviously interrupted by R.
- v provides clarification about something not covered in definition. For example, when Interviewer provides information about whether or not to count take-out as eating in a restaurant or about whether to include TV shows watched on the computer/phone for the how many hours of TV watched question.
 - w presents probe asking for "best estimate"
 - x no match prompt with a misrecognized answer. For instance, R says "10", system prompts as "I think you said 5, is that right?"
 - y question is assumed asked as worded; use when question text is missing from data set but can reasonably be assumed to have been asked given that a response is present

Examples of Acceptable Answers

1 Exact match	2 Exact match not in grammar
Exact answer options as worded in question text Just males/females Strongly favored Nope Yeah Yep In HV, there may be extra words surrounding the exact answer and this would be coded as code 1 with commentary, filler, or hedge ("I guess 5", "I like to eat spicy food so 20")	2 times 4 hours 3 days Note: Only applies to questions that ask for a number (so "3 times for exercise question is coded as 4 since it is a partial/synonym of the answer option) In HV, there may be extra words surrounding the exact answer not in grammar and this would be coded as code 2 with commentary, filler, or hedge ("Maybe 3 hours", "I saw Iron Man the other day so 1 movie")
3 Synonym in grammar	4 Synonym not in grammar and partial, non-ambiguous answers
None Once Twice Daily Never (unless an answer option as in Q21, Q22, and Q32) Both (to Q8)	Neither Neutral One or/to two (times) None (for Q8) Variations of somewhat such as mildly, moderately, slightly Strongly/somewhat in favor Neither favor or unfavor Strongly agree/approve The middle one

	1 or 2 (for Q6) Four or more female only (for Q8)
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Code Variable 3: Repairs and Restarts

0. No repairs or restarts present in move
- 1 One or more repairs and/or restarts present in move

Repairs were transcribed with a hyphen "-" and restarts were transcribed with a tilde "~". When autocoding for this variable, coders need to be aware that:

- Hyphenated words will be autocoded as repairs so any autocoding for repairs needs to be reviewed manually.
- There was some inconsistency in the transcription of repairs and restarts in the HV transcripts where repairs and restarts were sometimes transcribed using a comma. Coders need to be on the lookout for additional repairs and restarts that were not autocoded.

A restart is when the speaker begins a word or statement, but then begins again. A repair is when the speaker begins a word or statement, but then corrects a part of the phrase.

Code Variable 4: Fillers

0. No fillers present in move
- 1 One or more fillers present in move

Fillers, also known as filled pauses, include *uh*, *ah*, *um*, *er*, *mm*, *mmm*, *hm*, and can be autocoded.

Code Variable 5: Pauses

0. No pauses present in move
- 1 One or more pauses present in move

In HV mode, pauses can be autocoded because they were transcribed as [pause] or [long pause].

A pause is an interruption in the flow of speech. A pause counts if it is subjectively judged to be longer than one second. A long pause is when one conversant must temporarily leave the phone. (Note: not sure if this definition was applied consistently in transcription.) Schober and Bloom (2004) talk about midclause and preutterance pauses and provide the time of one second or more as a defining feature.

Code Variable 6: Laughter

0. No laughter present in move
- 1 One or more instances of laughter present in move

Laughter can be autocoded. In HV mode, laughter was transcribed as [laughs] or [laugh]. In text modes, look for "haha" "LoL" "lol" "LOL". (May need to add more examples once we code text modes.) Check to see if emoticons were used.

Code Variable 7: Commentary

Respondent Commentary

0. No commentary present in move
- 1 Commentary present in move

Respondent commentary refers to "add-on" or "extra" words that relate in some way to the core text of a move such as an answer or a question/comment about the survey or survey question. Examples include words that describe circumstances (Example A), indicate the respondent is thinking out loud (Example B), or demonstrate emotion such as shock or surprise (Example C).

Examples A: "I im married" "D, I am a Christian"

Example B: "U:h let's see, about 5."

Example C: "Oh gosh, in the last month?" "Omg! 2"

Interviewer Commentary

0. No commentary present in move
- 1 Non-standard, original commentary (no examples found yet)
- 2 Standard commentary such as scripted feedback ("That's important for our research", in IVR, system might provide additional info while repeating "Think specifically about the past 30 days"). This includes when a phrase is added to "Thanks" such as "Thanks that's helpful". It also includes general commentary: "Thanks for your answers so far".
- 3 Communicating confidentiality: "Remember your answers are confidential and only used in statistical reports." This includes when Interviewer implies that questions are sensitive: "I have to ask the questions as they appear on my screen."

Interviewer commentary is likely to be less frequent than respondent commentary and is defined as "add-on" or "extra" words that the interviewer adds to a core move. In the example below, the "thank you" is the core move of code "d" accepts answer. The underlined statement that follows is standardized commentary.

Example: "Thank you, that's important for our research."

Non-example: "Uh, wait a minute. [long pause] This-This computer lost my questions. Okay. " (Would be coded as "other" with a filler, pause, and restart.

Code Variable 8: Hedges

- 0. No hedges present in move
- 1 One or more hedges present in move

A hedge is a word or phrase whose job is to make things fuzzier. (See Schober and Bloom 2004 and Prince, Fader, and Bosk 1982. See also Lakoff 1973.

Common hedges are *about, I think, probably, I guess, possibly, maybe, I believe, approximately.*

R: Um, strongly favor, I guess.

R: [pause] U:m, probably 8.

R: U:m [long pause] I think every, every day.

Other less common examples are:

R: Uh, I can't remember. I would say 15.

R: Let's, let's go 18.

In text modes, hedges might be "?" or "+-"

R: 10(+)

R: 25?

Note: Only code words as hedges if they are connected to an answer/response (acceptable or unacceptable). In the example below, a respondent uses a hedge but it should not be coded as such because it does not apply to an answer but rather a request for more time.

R: Uh, hold on, maybe I can check.

Common hedges can be autocoded but require coders to manually review each case since hedges should only apply to answers. Also there may be additional hedges not listed here that should be coded. Coders must be vigilant as they code!