STIMULATED RECALL

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OUTLINE

- Researching miscommunication: The case for Stimulated Recall (SR)
- Characteristics of SR
- Outline of the present study
- Discussion of methodological issues
- Implications of key findings
Each method has substantial limitations:

- Self-reporting (e.g. miscommunication diaries) (e.g. Milroy, 1986)
- Close analysis of recordings and transcripts (e.g. Schegloff, 1987)
- Task completion (e.g. Brown, 1995)

Mixed methods are often used (e.g. Tzanne, 2000)
DEFINING SR

- SR is a type of retrospective report
  - Involving the retrospective verbalization of cognition
    - Contrasts with Think Aloud: concurrent verbal reporting

- Contrasts with other types of retrospective report
  - Through the use of a recall stimulus
    - Focuses on cognition at the time of the event (not informed by subsequent events)
STIMULATED RECALL: BASIC PROCEDURES

- An event is observed and recorded
- Participants are interviewed
- A stimulus is used to prompt recall of the event
- Participants verbalize the thoughts they had during the event (not reflections on the event)
DOES IT PRODUCE USEFUL DATA?

- At its best, SR enables participants “to relive an original situation with vividness and accuracy” (Bloom, 1953, p. 161)

- However, for much of the 20th century, researchers treated verbal reports with suspicion

- Undoubtedly, SR data is easily compromised and a great deal of caution is required when collecting and interpreting it
Ericsson & Simon (1984) provided a theoretical justification for accepting certain types of verbal report as ‘hard’ data:

- In completing a task, “a durable (if partial) memory trace is laid down” of the information that informed the behaviour.
- “This trace can be accessed from [short-term memory], at least in part, or retrieved from [long-term memory] and verbalized.”
- Both “are direct verbalisations of specific cognitive processes.”
- However, the latter “will require an additional process of retrieval” and may display errors and incompleteness.” (p. 16)
AREAS OF PREVIOUS ENQUIRY

Most often used to explore the cognition behind participants’ actions, e.g.
- teacher cognition (Polio, et al., 2006)
- learner cognition (Lam, 2008)
- language processing in translation (Dechert, 1987)
- learner reflection and self-evaluation (Murray, 2010)

Less frequently used to explore hearer responses to discourse:
- Tyler’s (1995): the perceptions of conversational interactants
- Bloom’s (1953): students’ thoughts during lectures and tutorials

“The great majority of such studies treat the procedures involved as unproblematic and few studies report the SR protocol in critical detail” (Lyle, 2003, p. 861)
THE PRESENT STUDY

- Acts of reference: where speakers identify for the hearer a specific individual (e.g. by saying *that man* or *Charlie* or *he*)

- Referential miscommunication: when the hearer misidentifies who the speaker means

- Research Question: What linguistic factors are implicated in referential miscommunication in L1-L1 and L2-L1 narrative discourse?
PARTICIPANTS

- 60 participants in 30 dyads
  - 10 L2 speakers + L1 hearers
  - 10 L2 speakers + ESL teachers
  - 10 L1 speakers + L1 hearers
PROCEDURES

- Speaker & hearer watch Pt. 1 *Modern Times*
- Speaker watches Pt. 2 *Modern Times*
- Speaker tells hearer what happened
- Stimulated recall interview with hearer
- SR interview with hearer viewing Pt. 2
EXAMPLES FROM THE STUDY

Narrative retelling

- A – Charlie falls on the fat woman, like two times and she’s all like like this (GESTURE)
- B – [LAUGHS]
- A – and then um she like gets up and looks real mad?, like her face?, and then suddenly like she pushes the policeman or something,

SR interview

- **Part 1**
- Res – who got up and looked mad?
- B – the fat woman

- **Part 2**
- B – ah, it WAS her [[the banana girl]], [LAUGHS] I thought the fat angry woman got angry
EXAMPLES FROM THE STUDY

Narrative retelling

- S – so, you know at the last part, we see together, when they brought the machine?

SR interview

- A – when she said the machine, I thought of two machines obviously . . . . there was the conveyor belt,
- Res – ah, and that other one
- A – and the other big machine where the guy talked to him and he changed the speeds
S – I noticed he was um, . like . his English definitely wasn’t perfect, but . . like . he he did make quite a few mistakes, I noticed one that I can sort of just remember off the top of my head [okay] he said ‘him’ instead of ‘her’ . um, a couple of times I think

R – Oh, okay, . and was that confusing?

S – Well it wasn’t confusing because I knew what he was talking about, and that’s the other thing I was going to get to, I mean, even though he made quite a few mistakes, . I still figured out what he was on about, [some comments omitted] yeah, I mean . . I picked up on it straight away, pretty much [yep, okay] and knew exactly who he was talking about
However, the SR interview revealed that the hearer had a radically different interpretation of the narrative (see Ryan & Barnard, 2009)

The miscommunications largely hinged on a small number of mispronounced words:

- Shake – choke
- Spilled – spit
- ‘Lunch machine’ (feeding machine) – (cleaning up machine)
- Corn – comb
USING STIMULATED RECALL
PITFALLS

- There are multiple pitfalls in implementing SR procedures (see Gass & Mackey, 2000:84-99), and so it is of some concern to Lyle that few studies “treat the procedures involved as unproblematic and few studies report the SR protocol in critical detail” (2003:861).

- Lyle (2003) warns that care is required to minimize the risk of SR data not accurately representing cognitive processes from the time of the original event, particularly in relation to processes such as re-ordering, reasoning, and ‘sanitization’.
BEST PRACTICE PROCEDURES

Lyle (2003, pp. 865-866)

- “It is necessary to reduce anxiety;
- limit the perception of judgemental probing;
- reduce the intrusion into the action;
- stimulate rather than present a novel perspective/insight;
- make the retrospection as immediate as possible;
- allow the subject a relatively unstructured response;
- and employ an 'indirect' route to the focus of the research.”
Video is generally regarded as providing the strongest recall stimulus. It is the most widely used stimulus in current research. However, “it is possible that using videotapes for stimulated recall produce a much more foreign stimulus than audiotapes” (Yinger, 1986:271).

Most people are not accustomed to seeing themselves on video. The participants often appeared distracted by their own image. My response: train cameras on the speakers.
RECALL QUESTIONS

Participants are to comment on memories rather than on a present interpretation

- Questions posed in the past tense

- Placement of adverbial time markers:
  - What did you think she think she meant when she first said that?
  - When she said first said that, what did you think she meant?
  - at the beginning of an utterance rather than at the end
TIME ELAPSE

- The delay between the event and the interview is critical
  - Time elapse leads to memory decay

- But analysis of recordings is useful for identifying troublespots

- The dilemma:
  - Analyze the recordings first?
  - Or commence the SR immediately?
TIMING OF THE RECALL PROMPT

Where do you pause the recording?

they all stopped and had lunch and he ...

they all stopped and had lunch and he still had twitches

Suggestion: pause recordings only at natural discourse boundaries
THE FOCUS OF RECALL QUESTIONS

- When she said ‘that big guy’, who did you think she meant?
- Who stole the bread?

- What was your understanding of the film at this point?
- What was your mental picture of what was happening here?
DECLARATIVE AND PROCEDURAL KNOWLEDGE
M – so um the girl runs out of the car, Charlie Chapman follows, the cop follows, and they all fall down, . . . the cop’s somehow still on the ground?, unconscious or something?,

R – okay

M – he must have donked his head, but I – I'm just filling in a gap,

R – yeah, okay

M – and then she explains something about Charlie Chapman hits him on the head again,

R – hits the policeman?

M – hits the policeman with a stick, and then they managed to get away

R – okay
M – he must have donked his head, but I – I’m just filling in a gap,
R – yeah, okay
M – and then she explains something about Charlie Chapman hits him on the head again,
R – hits who?

There is a need to ask confirming questions

There is sometimes a tension between not leading the participant and needing to present yourself as a cooperative listener

Suggestion: Use leading questions to confirm an interpretation you are fairly confident of (see also Kvale, 1996, p. 158)
FACE THREATS

Miscommunication is face threatening (Tzanne, 2000)

- Speakers wish to be viewed as competent communicators
  - Hearer’s may wish to protect the speaker’s face
- Hearer’s wish to appear intelligent and cooperative but are “at risk of appearing slow-witted” (Smith et al., 2005, p. 1871)

Highlights need to minimize participant anxiety (cf. Bloom, 1953)
REFERENCES