

The challenge of listening: Selective attention in clinical interviews

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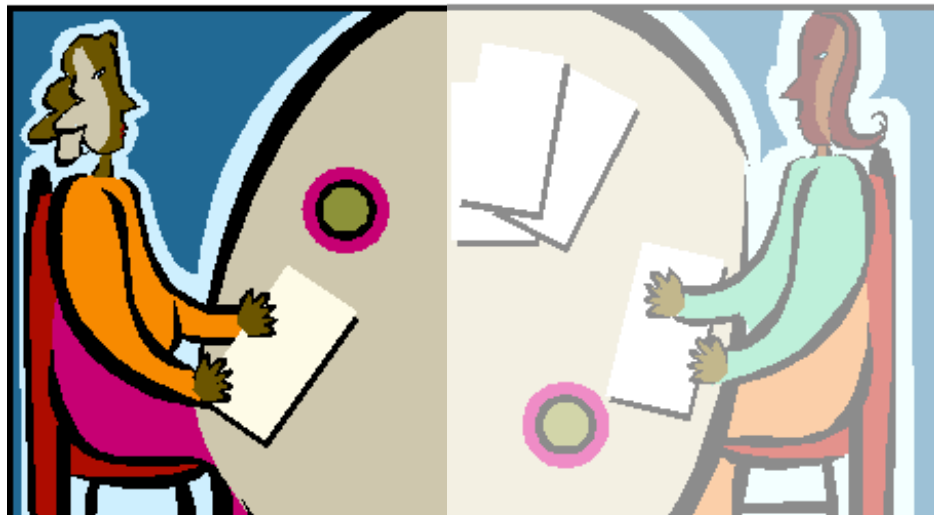


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Selective attention in clinical interviews



The researcher



The interviewer

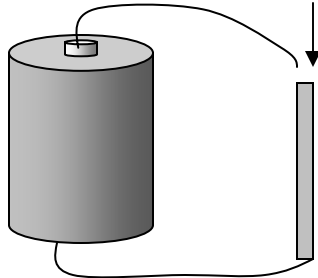
(NOT the student)

Outline

- **Researcher agenda and data interpretation:**
Selective attention by researchers analyzing an interview
 - Conceptual knowledge
- **Widening the scope of our research attention**
 - Interactive frames, epistemology, relevance
- **Interviewer agenda and data collection:**
Selective attention by the interviewer during the interview
- **Widening the scope of our interview attention**
- **Summary and introduction to subsequent talks**

Sample interview task

Designed to explore student reasoning about the conducting properties of materials.



The diagram shows a cylindrical battery on the left with two terminals. A wire connects the positive terminal to the top of a vertical steel rod on the right. Another wire connects the negative terminal to the bottom of the same steel rod. An arrow points to the rod with the label "Steel rod".

“What happens in the steel rod when you connect it to the leads of the battery?”

Answers consistent with accepted physics:

★ **CLASSICAL**

“Free electrons” in the metal are pushed by the electric field created by the battery.

★ **QUANTUM**

Delocalized electrons move within or between “conduction bands.”

Interview excerpt

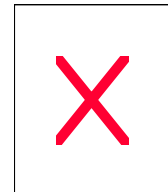
(1.5 min)



“Sarah”

Questions to consider:

What is there of interest to researchers?



What is the interviewer paying attention to?



Interview excerpt

(1.5 min)

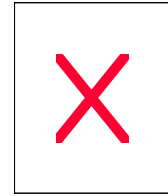


Interview excerpt

(1.5 min)



Possible researcher interests



- **Conceptual knowledge of physical mechanism**

Does the student know the correct physics?

Does she have a particular alternative model?



Resistors slow current

Conduction is determined by a chemical property

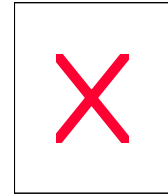
Electrons move around

Electrons oscillate

...more slowly in a resistor

...either perpendicular or parallel to the wire

Possible researcher interests



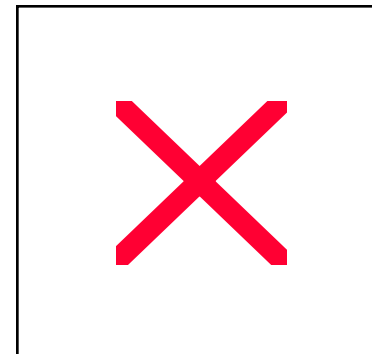
- **Conceptual knowledge of physical mechanism**

Does the student know the correct physics?

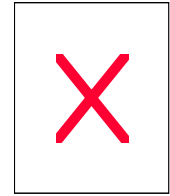
Does she have a particular alternative model?

✦ ***Little or no data is shown in the excerpt.***

*This led at least one researcher
to initially dismiss the excerpt
as uninteresting.*



Possible researcher interests



- **Conceptual knowledge of physical mechanism**

Does the student know the correct physics?

Does she have a particular alternative model?

 **Interactive frames**

What kind of interaction is this? Is the interview an occasion for sense-making or assessment?

 **Epistemology**

What is the student's stance toward her own knowledge?

 **Negotiating relevance**

How does the student know what the interviewer's questions are "really" about?

What are frames?



Tannen (1993) "Framing in discourse"

**“Structures of expectations”
that define and constrain activity types.**

Ex. Fancy restaurant frame
Lecture frame
Biker bar frame

**How does one observe “structures of expectations”
in what people say and do?**

What are frames?



Tannen (1993) "Framing in discourse"

**“Structures of expectations”
that define and constrain activity types.**

Ex. Fancy restaurant frame
Lecture frame
Biker bar frame

**How does one observe “structures of expectations”
in what people say and do?**

Linguistic evidence of frames

Tannen (1993) "What's in a frame? Surface evidence for underlying expectations"

"He never goes to bars. He should get out more. He must be kind of shy."



Negative statements are made only when an affirmative was expected.

Hedges and qualifiers suggest a mismatch with expectations.

Modals reflect the speaker's judgment according to some standard.

Linguistic evidence of frames

Tannen (1993) "What's in a frame? Surface evidence for underlying expectations"

"He never goes to bars. He should get out more. He must be kind of shy."



**Reasonable inferences
about the speaker's expectations:**

People go to bars.

People socialize regularly.

People who don't are shy.

This guy is not a textbook shy person.

A dating frame?

Sarah's frame

**What kind of activity
does Sarah think
the interview represents?**



In particular,
**is it an occasion for
*assessment or sense-making?***

Linguistic evidence of Sarah's frame

"I don't know exactly what happens in a resistor, but current is slowed down"

"I wouldn't know if [the electrons] were well- oscillating perpendicular to the flow or parallel"



"[You're] not allowed to give me any answers!"

Reasonable inferences about Sarah's expectations:

She should know what happens in a resistor (perhaps exactly).
The interviewer would normally give her the answers.

Assessment frame

Interactional evidence of Sarah's frame

Brown (2002) "Negotiating the paradox of the clinical interview," unpublished

**"I don't know,
are they oscillating at all?"**

She isn't musing to herself –
She's appealing to the interviewer.

Direct gaze


Smile

Drumming fingers



Assessment frame

Outline


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Interactive frames

Why might we want to pay attention to frames?

- Frames might help us interpret Sarah's statements. For example, if she thinks she's being tested, she might tend to be vague and conservative, hoping for "partial credit."
- We might want Sarah's frame to change. This might not be the kind of interview we're looking for; changing to a sense-making frame might make for a more useful interaction.

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Epistemology

What is Sarah's stance toward her knowledge?

Does she think her statements refer to
hard facts,
reliable theories,
invented explanations,
random guesses,
etc.?

She doesn't say.

This excerpt doesn't contain
descriptive statements
of Sarah's epistemological stance.

However, there is linguistic evidence.

Linguistic coding of epistemology

Chafe (1986) "Evidentiality in English conversation and academic writing"

"I feel something crawling up my leg."

KNOWLEDGE: Something is crawling up my leg.

SOURCE OF KNOWLEDGE: Sensory evidence (feeling).

MODE OF KNOWING: Induction.

"I think it's a spider."

KNOWLEDGE: It's a spider.

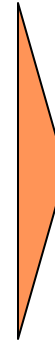
SOURCE OF KNOWLEDGE: [None stated.]

MODE OF KNOWING: Belief ("I think").

Linguistic coding of epistemology

"I think the electrons are oscillating."

"I would assume there's some kind of chemical property."



MODE OF KNOWING:
Belief

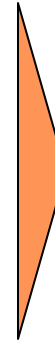


Are these just habits of speech?

Comparison with other excerpts suggests they are significant.
(Wittmann, speaking next)

Linguistic coding of epistemology

"I think the electrons are oscillating."
"I would assume there's some kind of chemical property."



MODE OF KNOWING:
Belief

~~Building conclusions
based on evidence~~

Recalling authority
statements

*Epistemological evidence supports
inferences from interaction analysis:*

Assessment frame

Summary of excerpt analysis

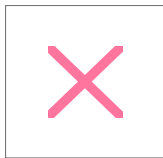
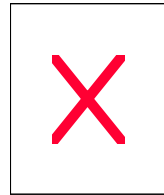
In this excerpt we found

- **linguistic evidence of assessment frame (vs. sense-making frame)**
- **interactional evidence of assessment frame**
- **linguistic evidence of epistemology**



Not bad for a one-minute excerpt.

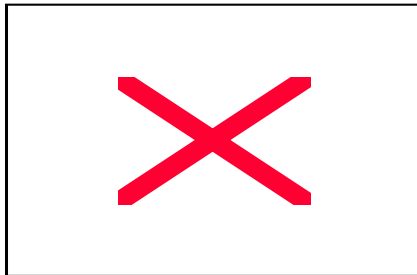
“Blinders,” or “focus”?



Perhaps my initial judgment of the excerpt was too hasty.

I missed lots of good data because I was only paying attention to conceptual knowledge.

The effect of researcher agenda on data interpretation

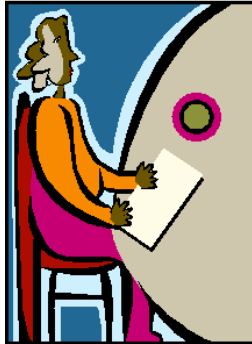


However,

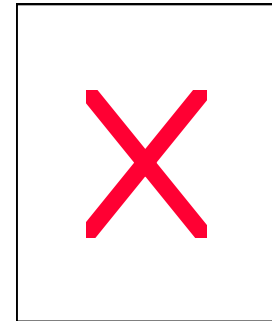
it is entirely appropriate for researchers to have a particular focus.

Is there a problem?

An issue in clinical interviewing



The researcher is often the same person as the interviewer.



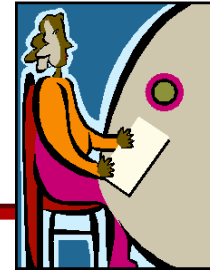
Clinical interviews (unlike “formal” interviews) are dynamically shaped by the researcher’s interests.

The effect of researcher agenda on data collection

Outline

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Interviewer selective attention



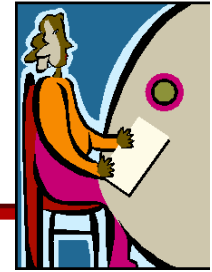
S: Uh, I don't know exactly what happens in a resistor, but current is slowed down. It slows down... well, I would assume that there's some kind of chemical property - well I don't know if it's a chemical property, but the oscillating electrons, maybe they're not oscillating as much ...

- *linguistic evidence of assessment frame*
- *linguistic evidence of epistemology*
- *More - Gillespie, speaking after next*

I: **What do you mean by oscillating electrons?**

The interviewer selectively attends to conceptual knowledge.

Interviewer selective attention



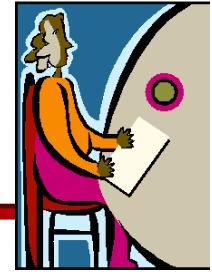
As with researcher selective attention, interviewer selective attention isn't necessarily a problem.

However, this interviewer's narrow focus may have been inadvertent.

Conceptual knowledge was not the interviewer's only STATED interest.

*Unexamined research agendas
may influence our behavior
in ways we ourselves don't want.*

Dangers of selective attention



Unconscious selective attention can lead to

- **Attribution errors**

The interviewer's agenda dynamically shapes the course of an interview. Student statements in an interview may not indicate what's "in her head."

- **Pedagogical 'errors'**

The interviewer's tactics aren't resulting in a juicy conceptual interview (and he's frustrated). Attention to epistemology, etc might have helped.

Summary and introduction

Why widen the scope of our research attention?

- **For fun:** Find something extraordinarily interesting.
- **For alchemy:** Turn leaden data to gold.
- **For self-improvement:** Grow as researcher/interviewer.
- **For the sake of core interests:**

Epistemology can affect what we see of a student's conceptual knowledge (Wittmann, speaking next).

Conceptual knowledge might belong not to the student, but to the interaction between the student and the interviewer-researcher (Gillespie, speaking after next).

Summary and introduction

Why attend to agendas other than the “default”?

- **Unfamiliar agendas might be extraordinarily interesting.**
- **Unfamiliar agendas might make lemons into lemonade.**
- **Unfamiliar agendas are opportunities for self-improvement.**
It takes effort to attend to unfamiliar agendas,
even when we know we want to
and especially “on the fly.”
- **Unfamiliar agendas might actually bear on our core interests.**
 - **Epistemology can affect what we see of a student’s conceptual knowledge (Wittmann, speaking next).**
 - **Conceptual knowledge might belong not to the student, but to the interaction between the student and the interviewer-researcher (Gillespie, speaking after next).**

Selective attention in clinical interviews

