

Contextual Inquiry

Reading Reflection

Discuss in groups

- How often have you watched others program, if at all? What contexts?
- Did you notice:
 - Surprising actions?
 - Times when you felt you knew exactly what the programmer was doing and why?
 - Moments of total confusion about what they were doing?

Why observation?

- We could miss true things.
- We could learn false things.
- We could learn true things poorly.

Why observation?

- **We could miss true things.**

As someone working in this space (and after taking this class! 😊) you know a lot about what languages, programming environments, synthesizers, and other tools can do for users!

Your participants might know all this...or they might not!

Result: problems that they see as irrelevant may seem very relevant to you.

Why observation?

- **We could learn false things.**

When we ask questions, we (often unintentionally) shape the responses we get.

We don't have a durable, reliable memory where we can just look things up, even a week later, never mind a few months. So questions even about facts will come up false sometimes.

We don't have durable, consistent preferences marked down in a mental table that we just look up. The mainstream belief in Thinking, Judgment, and Decision Making these days is that we (mostly) construct preferences when we're called on to express them.

Why observation?

- We could learn false things.

TABLE 2

DISTRIBUTION OF "YES" AND "NO" RESPONSES TO THE QUESTION, "DID YOU SEE ANY BROKEN GLASS?"

Response	Verb condition		
	Smashed	Hit	Control
Yes	16	7	6
No	34	43	44

Reconstruction of Automobile Destruction: An Example of the Interaction Between Language and Memory¹

ELIZABETH F. LOFTUS AND JOHN C. PALMER

University of Washington

Two experiments are reported in which subjects viewed films of automobile accidents and then answered questions about events occurring in the films. The question, "About how fast were the cars going when they smashed into each other?" elicited higher estimates of speed than questions which used the verbs *collided*, *bumped*, *contacted*, or *hit* in place of *smashed*. On a retest one week later, those subjects who received the verb *smashed* were more likely to say "yes" to the question, "Did you see any broken glass?", even though broken glass was not present in the film. These results are consistent with the view that the questions asked subsequent to an event can cause a reconstruction in one's memory of that event.

Why observation?

- **We could learn false things.**

Consider the now familiar conclusion frequently stated in the introduction of behavioral decision theory (BDT) articles: “There is a growing consensus that preferences are typically constructed when decisions are made, rather than retrieved from a master list of preferences stored in memory. In particular, preferences are influenced by the method of preference elicitation, the description of the options, and the choice context”. In line with this theme, researchers have raised the possibility that preferences are created when decisions are made, with stable values often playing only a very limited role. While the exact wording differs from one article to the next, this basic conclusion has been recognized as “one of the main themes that has emerged from behavioral decision research during the past three decades” (Lichtenstein & Slovic, 2006; first page of the edited volume, “The Construction of Preferences”).

Will I like a “medium” pillow? Another look at constructed and inherent preferences[☆]

Itamar Simonson

Stanford University, USA

Available online 3 June 2008

SECTION I. INTRODUCTION

1. The Construction of Preference: An Overview

Sarah Lichtenstein and Paul Slovic

Why observation?

- **We could learn true things poorly.**

We just get a lot more detail seeing something happen than hearing it retold!

Think about how much more you know about an event *you* lived relative to a similar even that a parent or friend relayed, even if they told you the story.

If you turn to the person next to you and have them describe the program they're working on *right now*, in excruciating detail...and *then* looked at it, there would almost certainly still be elements that you wouldn't have predicted or find surprising.

~~Why observation?~~

- ~~Naturalism~~

We don't get to make any extra claims about things being natural just because we're observing them instead of hearing or reading them. They're still the product of the participant's environment, constraints, prior experiences, and generally context. We may get a more detailed picture, but we *don't* get a more natural one.

The core premise of Contextual Inquiry is very simple: go where the customer works, observe the customer as he or she works, and talk to the customer about the work. Do that, and you can't help but gain a better understanding of your customer.

Contextual Design, Beyer and Holtzblatt

You →

Yoda
(your user/participant) ←

Highly recommend the expert-apprentice relationship model for contextual inquiry.
Don't typically recommend offering piggyback rides as part of it.

You →

Yoda
(your user/participant) ←

And this green one is his
teacher

For reference, in Star Wars,
this guy is an apprentice

Video—look for...

- Details of participant's process that you notice but which they never express aloud
- Instances in which participant mentions something because of doing the task, or prompted by context

However, let's also watch this with our ✨friendly but critical✨ hats on:

- Do you spot instances where it's an interview that happens to be taking place in the context, rather than emphasizing the observation?
- Instances where the apprentice takes more of an expert approach to questions and less of an apprentice approach?
- This was a CI session run by students in a course, and it's totally natural for it to take some time to get adjusted to this apprentice role!

Grocery shopping habits of college students
Contextual Inquiry by Annie Tao



0:07 / 7:08



<https://www.youtube.com/watch?v=JV6br-npgfw>

As the apprentice you...

- ~~Ask abstract questions?~~
- Focus on the ongoing work



Context

Context

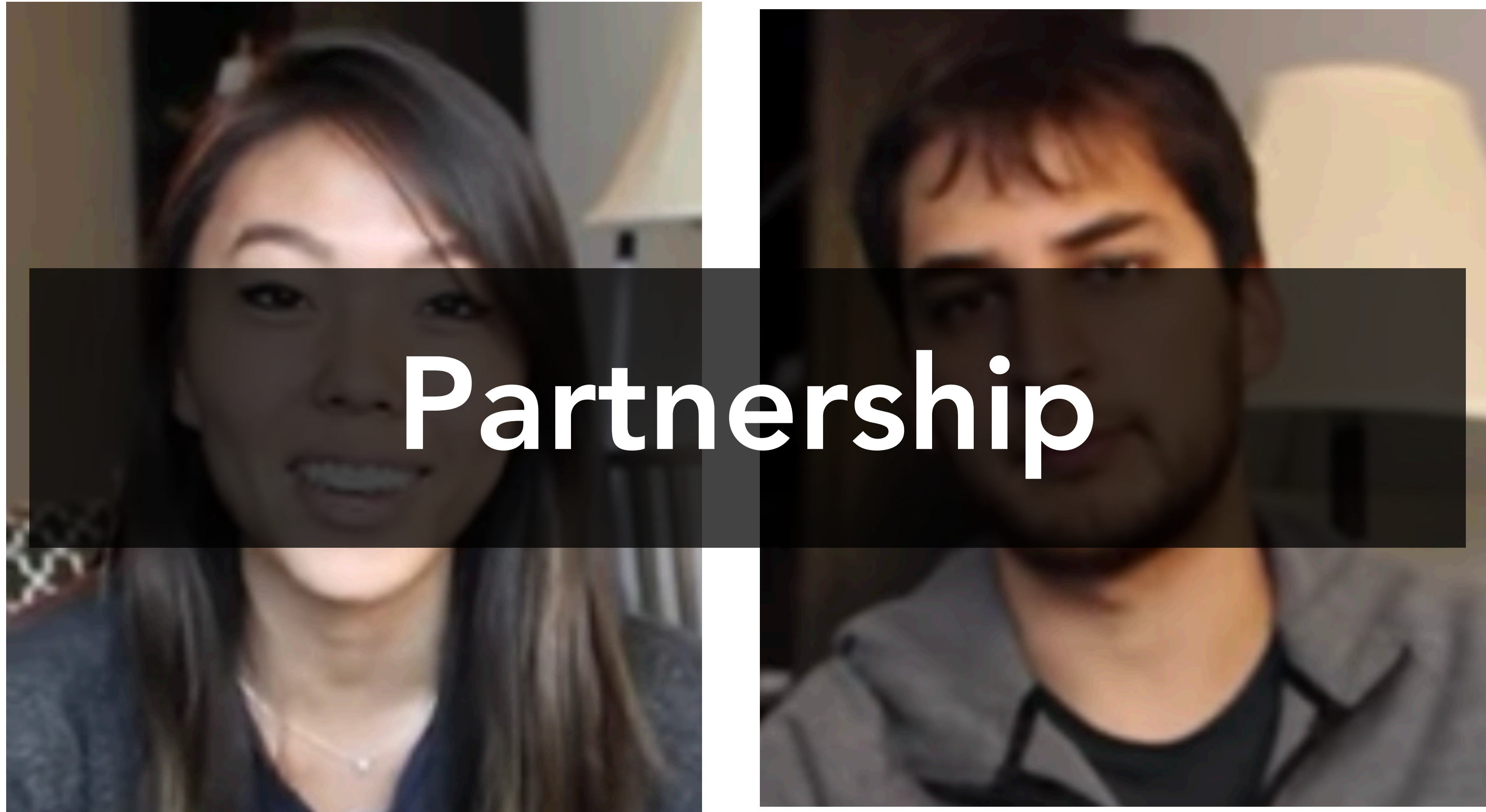
- During the design process, we thrive on detail, so we don't want the participant to give us summaries!

how was your day

fine

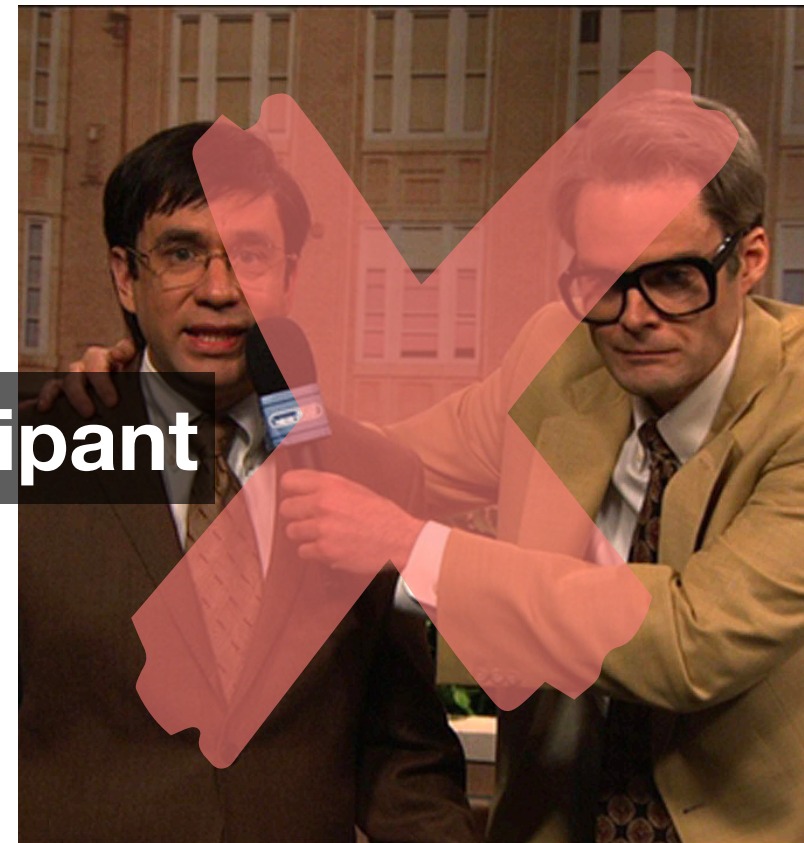
- We also want concrete stories/experiences, not generalizations

of what he is talking about. Words indicating the customer is generalizing are another signal. If the customer says, "generally," "we usually," "in our company," he is presenting an abstraction. Any statement in the present tense is usually an abstraction. "In our group we do . . ." introduces an abstraction; "that time we did . . ." introduces real experience.



You

Participant



**Interviewer/
Interviewee**

You

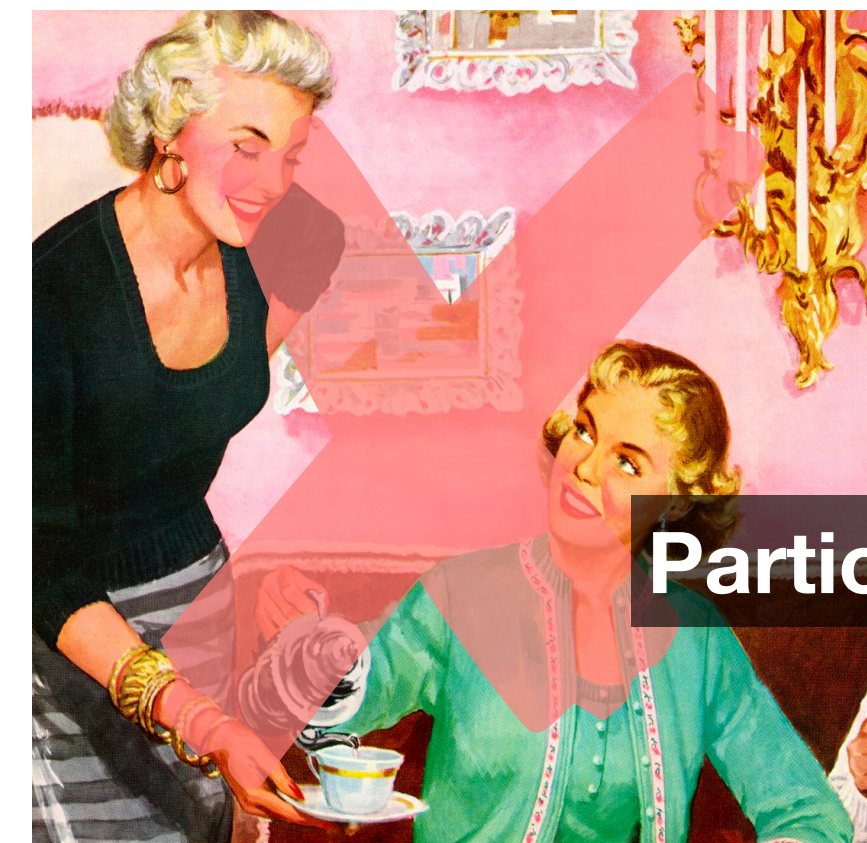
Participant



**Expert/
Novice**

You

Participant



**Guest/
Host**

You



Participant

But it's a little different...

Expert/
Apprentice **-ish**

our goals are different from
standard apprenticeship, so we
want to direct the experience
more. So we become partners
in understanding Yoda's work.



Wants to learn how Yoda
programs uses the force so he
can use the force to save his
friends/the galaxy.



Wants to learn how Yoda
programs uses the force to make
it easier for him and others to
use the force in the future.



participant does their thing

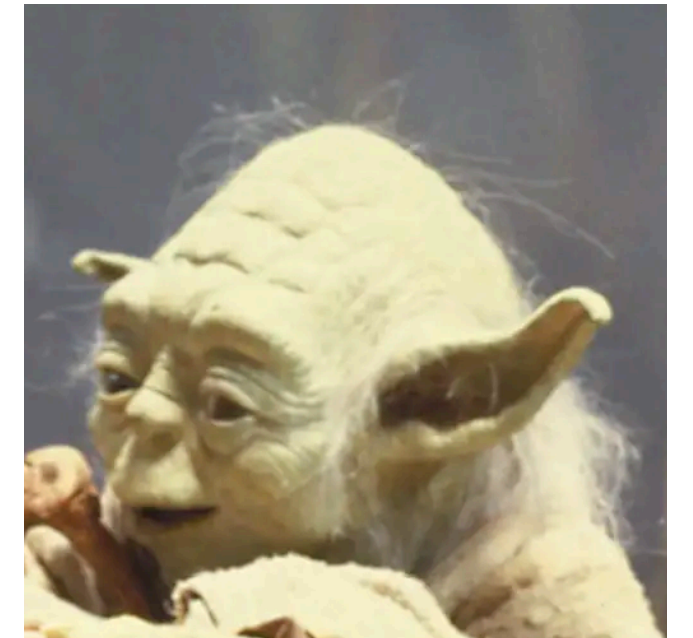
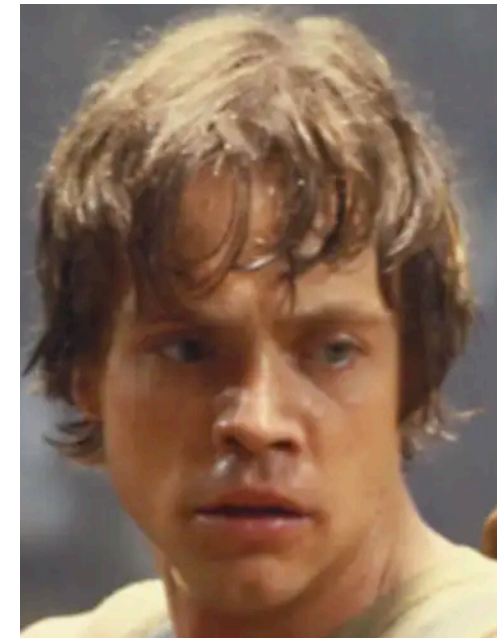
you notice something



Are hand motions required to use the Force?

Asked 5 years, 7 months ago Active 1 year, 4 months ago Viewed 8k times

- ▲
21
▼
- ★
2
🕒
- In almost every canon (that is, visual) source, Force users typically wave a hand to invoke the Force to move or manipulate objects, people and thoughts. I get out-of-universe this is a visual cue that the Force is being used, but in-universe is it strictly necessary?
- (The only exception I can think of is when Luke is training on Dagobah and is balancing rocks while standing on one hand with Yoda on his foot. He doesn't appear to be waving his hand to move the rocks.)
- Is this addressed anywhere in-universe, even in Legends?



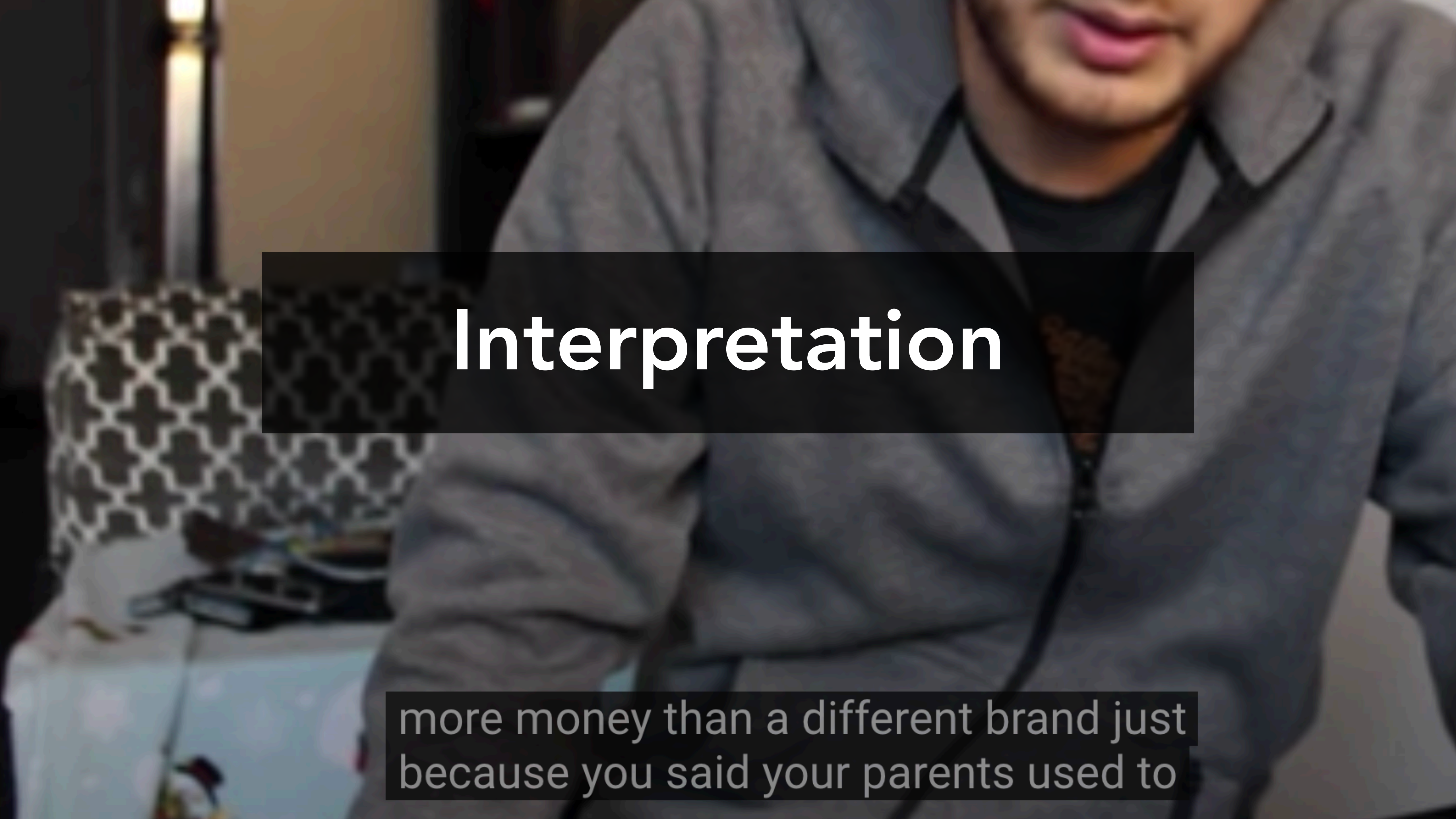
your question is
answered or your
confusion is resolved



▲
15
▼
🕒

No, they're not necessary. But they act as a focusing aide and *may* be necessary for more difficult tasks. Notice that no hand gestures were needed when Luke levitated C3PO:

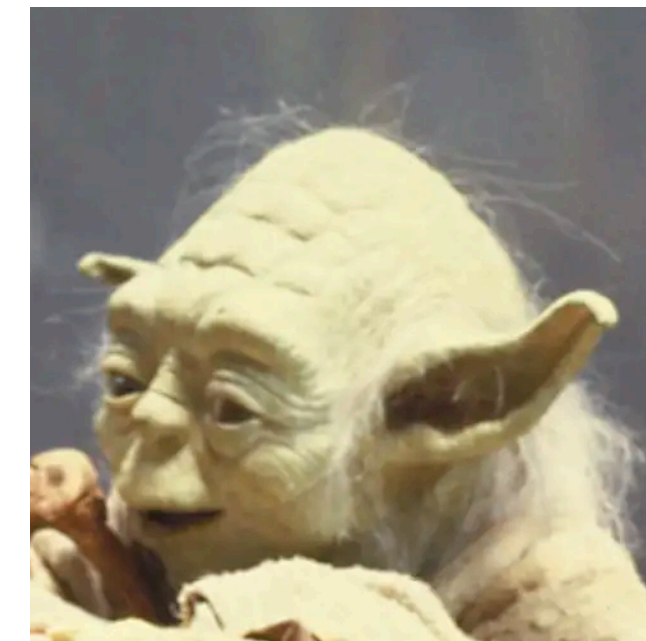
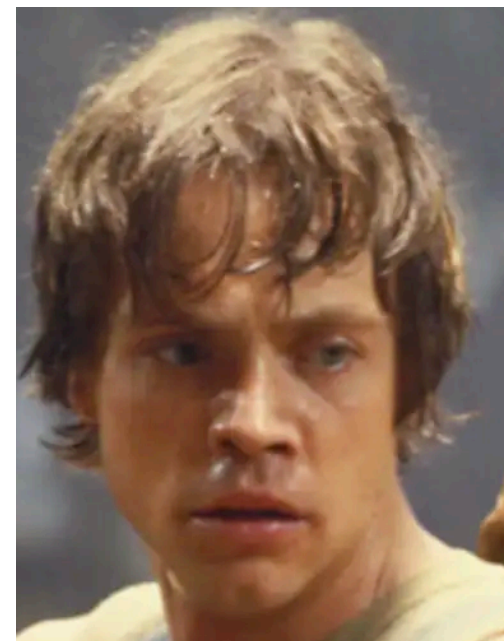


A person with a beard, wearing a grey blazer over a dark t-shirt, is sitting on a chair with a black and white geometric pattern. The background is slightly blurred, showing an indoor setting with warm lighting.

Interpretation

more money than a different brand just
because you said your parents used to

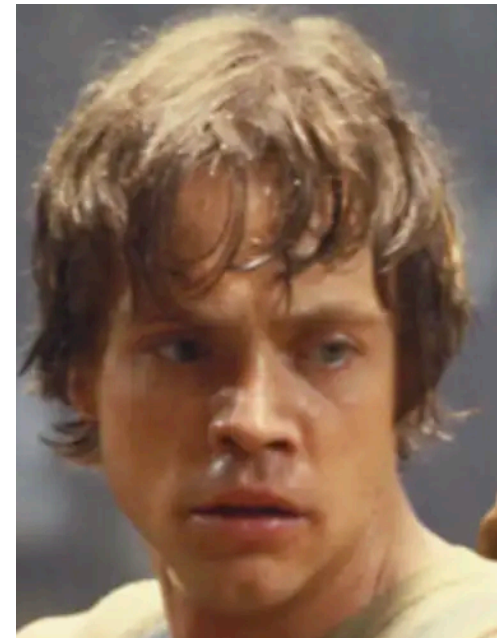
I saw you were doing the hand thing when you were frustrated with me. It's a communication device?



Huh?

Or nodding...

I saw you were doing the hand thing when you were lifting big things but not small things. It makes your force stronger?



tion. Customers say “yes” by twinkling their eyes at you as they realize your words match their experience or by elaborating on

Yep, it helps me focus the force.



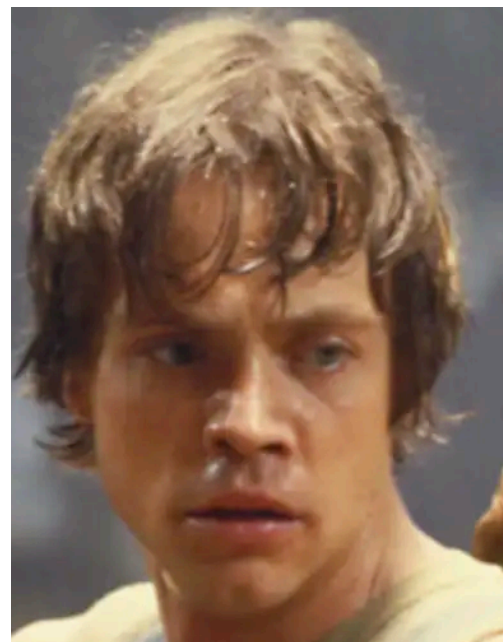
Focus

Grocery shopping habits of college students

Narrowing focus to what's relevant to your research is good, but sometimes you need to expand focus....

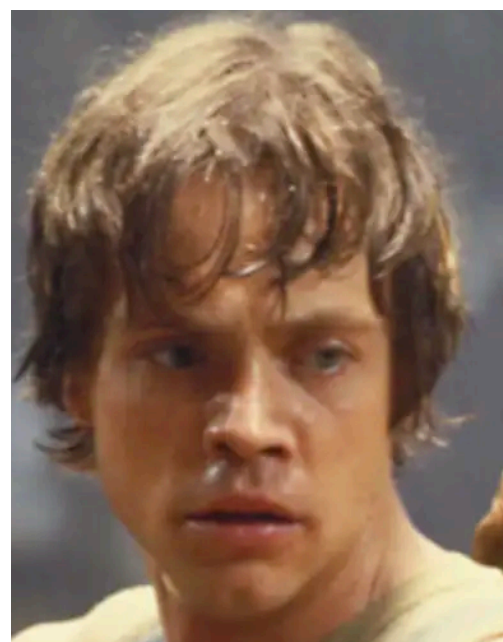
Surprises

I see you just copied 60 lines of code and pasted them to a second place in the file. Can you tell me about that?



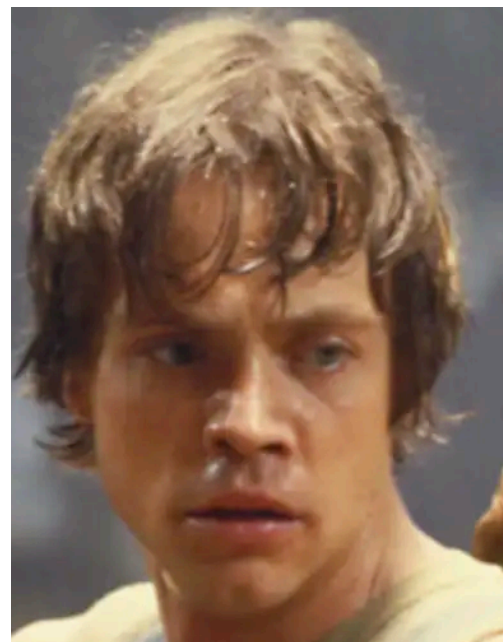
Nods

nods yes, I have written a loop before myself and
now understand you on a spiritual level



What you don't know

ok, hang on, Kan fibrations??



One of the big reasons we talk to users during design is to avoid relying on our own assumptions. These triggers point to places in the conversation where we might have a **chance to throw out a couple assumptions.**

Structure

- 2-3 hours overall
- Components
 - Introductory conventional interview
 - 10-15 minutes
 - Tell them the rules!!!
 - 30 seconds
 - CI
 - However long y'all can spare :)
 - Wrap-up
 - 15 minutes

Assignment 2

- If you've already run your call, awesome! Take this time to do the post-call reflection or your writeup.
- If you haven't already run your call:
 - Can you use any of the lessons of contextual inquiry to enrich your plan for the call?
 - Finalize your plan for the call