Not Some Random Agent: Multi-person Interaction with a Personalizing Service Robot
Samantha Reig, et al.
Human-Robot Interaction 2020
Interview Protocol

These are the questions used in the participant interviews described in the paper:

Samantha Reig, Michal Luria, Janet Z Wang, Danielle Oltman, Elizabeth Jeanne Carter, Aaron Steinfeld, Jodi Forlizzi, and John Zimmerman. Not Some Random Agent: Multi-person Interaction with a Personalizing Service Robot. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20), March 23-26, 2020, Cambridge, United Kingdom.* ACM, NY, USA, 9 pages. https://doi.org/10.1145/3319502.3374795

The interviews were semi-structured. As such, these questions were used as a guide, and were not intended to prescribe or constrain the conversation between the interviewer(s) and the participants. The order of the sets of questions (Singular Agent, Personal Service Agent, Life Agent) varied based on the order of the user enactments. The order of the questions within each set loosely followed the order in which they occur below, but sometimes deviated if the participants raised issues before the relevant question came up. Some questions were always asked before or after others to avoid biasing the participants' responses. For more information, please see the paper.

SINGULAR AGENT ("Alpha")

General questions (always ask):
- I'll start by asking you to describe the interaction you had, in your own words. What happened? How did it make you feel? *[The purpose of this question is to make sure the participants understood the agent configuration concept by encouraging them to explain it. The interviewer can explain the concept plainly if anything is unclear. It also serves to get their initial impressions of the experience.]*
- Was there anything you especially enjoyed about the way the robot behaved?
- Was there anything you especially didn't enjoy about the way the robot behaved?
- Was there anything about the robot's behavior that felt uncomfortable or unnatural?
- Was there anything about the robot's behavior that felt comfortable or natural?
- What did you think about Alpha?
- How did you feel about the agent assisting both of you?

Clinic:
- Who did you think gave you the flu shot?
- How did you feel about a robot giving you a flu shot?
- How did you feel about the robot recognizing you when you walked into the clinic? Should agents recognize people?

Store:
- What information do you think Canton Department Store has about you after you leave the store?

Hotel:
- How did you feel about Alpha making recommendations based on your previous experiences at Homestead Hotels?

PERSONAL SERVICE AGENT ("Moon" for P1 and "Saturn" for P2)

General questions (always ask):
- I'll start by asking you to describe the interaction you had, in your own words. What happened? How did it make you feel? *[The purpose of this question is to make sure the participants understood the agent configuration concept by encouraging them to explain it. The interviewer can explain the concept plainly if anything is unclear. It also serves to get their initial impressions of the experience.]*
- Was there anything you especially enjoyed about the way the robot behaved?
- Was there anything you especially didn't enjoy about the way the robot behaved?
- Was there anything about the robot's behavior that felt uncomfortable or unnatural?
- Was there anything about the robot's behavior that felt comfortable or natural?
- How did you feel about the agents? P1: what did you think about Moon? P2: what did you think about Saturn? How would you describe the relationship between the agents? Were they aware of each other?
- What did you think about the two agents talking at the same time? How did that make you feel?
- How did you feel about two individual agents from [the QuickCare Clinic/the Canton Department Store/Homestead Hotels] co-embodying the same robot and helping each of you individually?

Clinic:
- Who do you think gave you the flu shot? How did you feel about a robot giving you a flu shot?
- How do you feel about the robot recognizing you when you walk into the clinic? Should agents recognize people?

Store:
- At the end of the scenario, the agents said they would use the payment information they had on file for you. What did you think about that? (Do you think the other person's agent was able to access your payment information? Should they be able to?) *[If it doesn't come up naturally, ask how they think it has their stored payment information.]*
- What information do you think Canton Department Store has about you after you leave the store?

Hotel:
- How did you feel about Moon and Saturn making recommendations based on your previous experiences with Homestead Hotels?

General questions (always ask):

- I'll start by asking you to describe the interaction you had in your own words What happened? How did it make you feel? *[The purpose of this question is to make sure the participants understood the agent configuration concept by encouraging them to explain it. The interviewer can explain the concept plainly if anything is unclear. It also serves to get their initial impressions of the experience.]*

- Was there anything you especially enjoyed about the way the robot behaved?

- Was there anything you especially didn't enjoy about the way the robot behaved?

- Was there anything about the robot's behavior that felt uncomfortable or unnatural?

- Was there anything about the robot's behavior that felt comfortable or natural?

- How did you feel about the agents? P1: what did you think about Basil? P2: what did you think about Sunflower? How would you describe the relationship between the agents? Were they aware of each other?

- How did you feel about having your own agent follow you to the [clinic/store/hotel] and help you there?

- How did you feel about having your own agent share a body with another person's agent?

- If you had a personal agent that moved from device to device, helped you with daily activities, and generally accompanied you throughout your day, what kind of voice and personality should your agent have?

Clinic:

- Who did you think gave you the flu shot? How did you feel about a robot giving you a flu shot?

- How did you feel about the robot recognizing you when you walked into the clinic? Should agents recognize people?

- What did you think about having the agent that helped you with day-to-day tasks also help you in a medical context?

- How did you feel about Basil and Sunflower giving you updates about your flight/telling you your package was delivered during the flu shot?

- *Store:*

- How did you feel about Basil and Sunflower pulling up your shopping lists and knowing what you were looking for?

- What information do you think Canton Department Store has about you after you leave the store?

Hotel:

- How did you feel about Basil and Sunflower trying to find you restaurants based on your dietary preferences? (Basil saying that Alex often orders Sushi, and Sunflower saying that Taylor went to Green Eatery back home?)

<u>CONCLUSION</u>

- What combination of agents and bodies did you feel most comfortable with?
- Which did you enjoy most?
- Which was most efficient?
- Which was most realistic?
- Did you like any of the agents more than the others? Why?
- When are multiple agent minds in one body a good idea (like you saw in the [personal & my agent] scenario)?
- When is a single agent mind for a single body a good idea (like you saw in the [singular] scenario)?
- Do you think robots should have different personalities for different users?
- How do you think service agents should be personalized for individual users?