

# INFO 300

## Social Responses to Computer Technology Research Findings Relevant for Voice User Interfaces

As humans we prefer to interact with personalities similar to our own.<sup>2,3</sup>

- Similar gender –People like interfaces that sound like they are the same gender as themselves.
- Similar accent –People like their interaction more when the interface has an accent similar to their own.
- Similar style –For example, dominant people like interfaces with a dominant style of communicating. More submissive people prefer submissive interfaces.

Emotion influences perception.<sup>2</sup>

- Happy voices make happy and sad content seem happier.
- People prefer that the emotion matches the content (sad content should have a sad voice).
- People find emotionally neutral voices more credible.

People respond to a computer's "gender" along stereotypical lines.<sup>2,3</sup>

- "Male" interfaces are rated more competent and persuasive
- "Female" interfaces are seen as more knowledgeable about topics such as love and relationships. "Male" interfaces are seen as more knowledgeable about technical subjects.
- ...Remember, as mentioned before people prefer (like and trust) interfaces that seem to be the same gender.

First person (i.e. using pronouns like I, me, and my) vs. passive voice (for example "it is here")<sup>1</sup>

- People enjoy interacting with first person interfaces more.
- People react differently to first person vs. passive voice in human (prerecorded) and synthesized voices.
- People are more comfortable with human voices using the first person than the passive voice.
- People are more comfortable with synthesized voices using the passive voice than the first person.

People respond to multiple voices from a single computer as though they were separate entities<sup>1</sup>

- A computer can have multiple voices and personalities and people will respond to each in different ways.

Politeness to and from computers<sup>3</sup>

- As with other humans, people are less likely to criticize a computer directly (i.e. if the computer itself asks for an evaluation) than to a third party (a different human or computer).
- Because rules of politeness seem to hold for computers, a computer interface should be designed to be polite and to be aware of problems arising from human tendencies to be polite.

People like flattery, even if it is insincere<sup>1</sup>

- People feel they have done a better job when they are praised by the computer.
- If a computer gives praise, the users like the computer better.
- *This is true even if the people are told that the computer's evaluations are randomly generated and do not pertain to the person's actual performance.*

References:

1. Nass, C. et al. Can Voice User Interfaces Say "I"? An Experiment with Recorded Speech and TTS  
<http://www.stanford.edu/~nass/comm369/pdf/IME%20vs.%20Impersonal.pdf>
2. Nass C., & Gong L. (2000). Speech interfaces from an evolutionary perspective. *Communications of the ACM*, 43: (9) 36-43
3. Reeves, B. & Nass, C. (1998). *The Media Equation. How People Treat Computers, Television, and New Media Like Real People and Places*. Cambridge: Cambridge University Press.