

## CMC — 7 Sept 2006

- **Nowak & Rauh. "The Influence of the Avatar on Online Perceptions of Anthropomorphism, Androgyny, Credibility, Homophily, and Attraction."**
  - 255 college students (136 M; 115 F)
  - 30 avatars
    - Animal
    - Object
    - Human, varying in terms of:
      - Gender
      - Rendering quality
      - Torso presence
      - Age (adult or child)
  - Things measured
    - Each participant rates 8 avatars (2 M, 2 F, 2 object, 2 animal)
    - Randomized order
    - Participants
      - Gender
      - Computer use
        - Author/researcher software
        - Math/science software
      - Computer efficacy
    - Avatars
      - Anthropomorphism
        - Looks human or not
        - Looks realistic or not
        - Looks cartoon-like or not
      - Androgyny
        - Masculinity dimension
        - Femininity dimension
        - Male/Female/Undetermined forced choice
        - Both absolute difference and multiplicative scores
      - Credibility
        - Intelligent, informed — competence dimension
        - Reliable — character dimension
      - Homophily
        - (Kind of a misuse of the term — "similarity" would be better)
        - Similarity of avatar to participant
        - How much avatar "thinks like me"
      - Attraction
        - "It would be nice to work with the character"

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- "I find the character attractive physically"
  - What about sexual orientation?
  - (And what about the animals and objects?? — yow.)
- Likelihood participant would choose
- Results
  - The meaning of "reliability" — why some items were dropped. Cronbach's alpha.
  - See slides for the extreme avatars in all dimensions
    - Why do so many individual avatars recur in the extremes?
    - What does this tell us about the equivalence of the avatars?
      - Potential problem with this study: Characteristics are not well-distributed among the avatars
      - How systematically were the avatars generated? Could systematic variation of features have mitigated this problem? (i.e., series of avatars with facial features gradually moving from masculine to feminine in small steps)
        - It seems that the authors chose to generate an assortment of visual "types" rather than systematically varying the features
  - Order effects — first image shown rated more androgynous, less anthropomorphic, lower homophily, less likely to be chosen
    - Why would this be the case? Probably having less basis for comparison.
    - Thus, first images excluded from subsequent analyses
  - Perception of avatars
    - No surprise here: human male avatars rated least feminine, human female avatars most feminine, animals and objects in between
      - Also, animals and objects rated more androgynous than humans
      - Men rated the avatars as more feminine in general than did women (small effect)
    - No surprise here either: human avatars rated more anthropomorphic than animals or objects
    - Who would you choose to represent you?
      - Men: male avatars; women: female avatars
    - Predicting attractiveness: – male avatars, – objects and animals, + child character (slight effects)
    - Credibility: – animals, – objects (slight effects)
  - Intercorrelations
    - Anthropomorphism
      - with androgyny:  $r = -.51$
      - with androgyny-mult.:  $r = -.44$
      - with attraction:  $r = .45$
      - with credibility:  $r = .46$
      - with homophily:  $r = .45$
      - with likelihood to choose:  $r = .31$
    - Attraction
      - with masc.:  $r = -.33$
      - with fem.:  $r = .10$

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- with credibility:  $r = .49$
- with homophily:  $r = .49$
- with likelihood to choose:  $r = .45$
- Credibility
  - with masc.:  $r = -.15$
  - with androgyny:  $r = -.30$
  - with homophily:  $r = .51$
- Homophily
  - with likelihood to choose:  $r = .59$
- Image with highest homophily ratings also most credible, most likely to be chosen, and second most attractive.
- Strongly gendered avatars more credible, more attractive, more anthropomorphic
- **Donath & Viégas. "The Chat Circles Series: explorations in designing abstract graphical communication interfaces."**
  - Humaniform design of circle + name representation
  - Hearing range
  - Proximity — social distance
  - Traces/movement
  - History view