Examining the perception of miscommunication in a coalition environment

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Rationale for the work

• Many (most) military operations involve nations operating in a coalition
• National differences may reduce the effectiveness of collaboration
  – This has been observed qualitatively in coalition operations involving just two members, in this case the US & UK, who share many aspects of language and culture
• Most of this evidence has been anecdotal
  – And gathered after any events
• Need a more rigorous scientific approach to study coalition issues
Study 1. Background

• Exploratory qualitative research (Poteet et al. 2008)
  – Semi-structured interviews (5 UK & 5 US)

• Identified 5 types of language use that can lead to miscommunications:
  – (1) Acronyms
  – (2) slang & colloquialisms
  – (3) jargon
  – (4) speech acts
  – (5) literal vs. applied meaning

• Medium of communication important
Research Aims & Objectives

• Address methodological issues arising from previous research (Poteet et al. 2008)
  – e.g. Small sample size
  – Validate empirically claim miscommunications are frequent & lead to negative consequences

• Quantify perceived frequency & impact of miscommunications between UK & US military personnel resulting from:
  – Typologies of language use
  – Different communication media
Study 1. Method

• Secure web-based questionnaire
  – 39 UK military participants
  – 10 questions
  – Cranfield & MoD ethical clearance
  – Defined 5 types of language use.
  – Drop-down menus & sliding scales - controlled information elicited.
Study 1. Method

• Q5. In your experience, how significant is the impact of these miscommunications on work performance?

*Please move the arrow to the position on the scale which best describes your experience.*

Highly significant

No significance
General frequency and impact of miscommunications

- Once a month
- Once a fortnight
- Once a week
- More than once a week
- Once every other day
- Once a day
- More than once a day
Results

The graph illustrates the perceived frequency and impact of different types of media: Face to face, Audio, Video, and Text.

- **Face to face** shows a moderate perceived frequency and impact.
- **Audio** has a high perceived frequency and impact.
- **Video** has a moderate perceived frequency and a slightly lower impact.
- **Text** shows a high perceived frequency and moderate impact.

The data suggests that audio and text media are perceived as more frequent and impactful than face-to-face and video media.
Discussion - Language use

- Miscommunications are somewhat frequent & have a significant impact on work performance
- Language use seems to be an important factor
- A second study identified differences in the effect different language uses have on the perceived frequency & impact of miscommunications.
  - The impact of acronyms on work performance seems to be more problematic for UK than US
  - Although the frequency of use of acronyms is the same, it could be that US personnel use more unknown acronyms than UK military personnel
Discussion - Language use

• **Egocentricity (Keysar, 2008)**
  – Addressees often interpret a speaker’s message from their own perspective
  – Speakers disambiguating their utterances with little consideration of addressee’s mental states
  – Speakers tend to overestimate how effective they communicate intent

• Be aware of possible ambiguity of information
Discussion

- Frequency & impact for audio are different from video (& face-to-face in Study 2)
- Audio-only used > frequently?
- Little experience of VM?
- Importance of ‘media richness’
- Visual cues can aid interpretation of intent
- Effects of visual cues on communication depend on:
  - Task type.
  - Participants are remote/co-present (Doherty-Sneddon et al.,1997)
Conclusions

- Importance of accent? – Participant’s self report
- Snedeker & Trueswell (2003) – speakers of same language share implicit knowledge about link between prosody & syntax
  - Prosodic cues only provided to help disambiguate phrases when environment does NOT give other relevant information.
- Does accent modulate role of prosody in the disambiguation of phrases?
- Longer dialogues – turn taking
- Speaker rate – stressful environment
- Possible effect of anchoring?