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MENSCH-MASCHINE-INTERAKTION

Eye-Contact
&
Seating Arrangement

Eye-Contact

- General Information

- Running in the Rain experiment

- The GAMESHOW experiment

Seating Arrangement

- General Information

- t-Room

Eye-Contact

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Eye-Contact - General Information

Studies showed that native English speakers complete their cooperative/guided tasks (e.g. repairing a bicycle) just as well unrelated to the way of communication they use (Audio-Only, Co-Present, Video-Tunnel, ...)

Non-native speakers profit from Video-Supported communication

Benefit of Video-Support depends on the task

Only tasks evolving conflict resolution or negotiation profit from Video-Supported communication including Eye-Contact

'Running in the Rain' experiment - "Run or Walk?"

Three types of pairs:

· Audio-Only (remote)

· Side-by-Side/Face-to-Face (co-present) [Fix]

· Video-Tunnel (remote) [Side-by-Side/Face-to-Face]
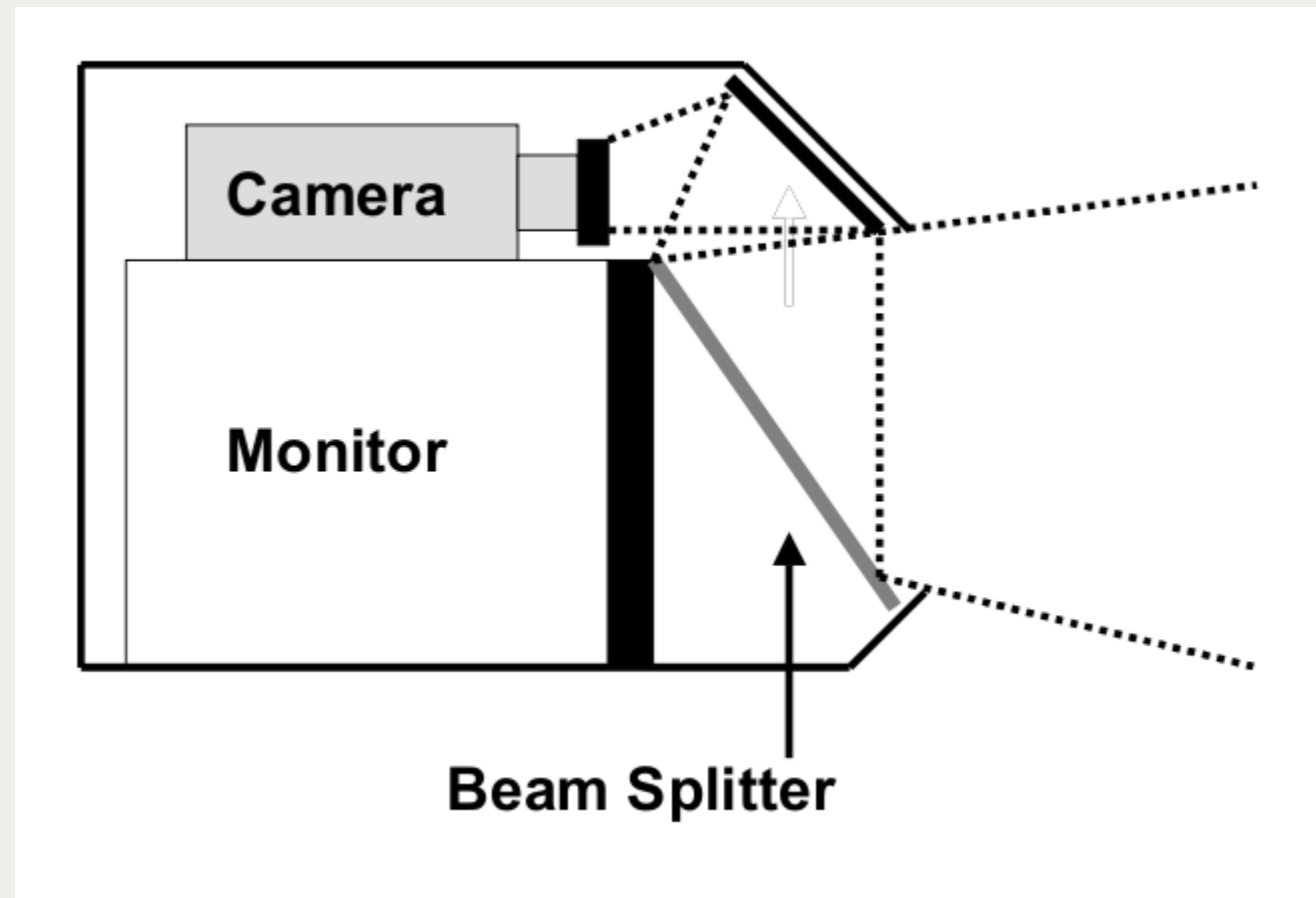
Interface to configure settings as

· Position of the runner

· Speed of the runner

· etc.

Environment: SharedARK

Object: Agree when it's worth running in the rain

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'Running in the Rain' experiment - "Run or Walk?"

Video-Tunnel:

[1]

'Running in the Rain' experiment - "Run or Walk?"

Results:

➔ Audio-Only participants were more detailed and negotiated more about task devision

➔ Co-Present participants had the problem of frequently mutual gaze

➔ Video-Tunnel participants used the tunnel mainly while not using the interface and had a higher meta-level activity (e.g. making jokes)
Switched between Side-by-Side and Face-to-Face to avoid gaze and to see the interface like the partner does

The GAMESHOW experiment

up to 5 Participants (Users/Groups) using

- Audio-Only

- VMC* without Eye-Contact

- VMC* with Eye-Contact

Object: Which strategy is the best? Stick or Change?

Environment: KANSAS

* VMC = Video Mediated Communication

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The GAMESHOW experiment

Results:

Participants that switched from stick to change

	Change	No Change
Audio Only	2	4
VMC with Eye Contact	4	4
VMC without Eye Contact	1	9

[2]

Conclusions:

Importance of Eye-to-Eye Contact depends on the task

Only available for pairs not for larger groups

Types of connection between participants can be mixed (e.g. Co-Related & Video-Tunnel) to be able to work Side-by-Side as well as Face-to-Face

Eye-Contact

- General Information

- Running in the Rain experiment

- The GAMESHOW experiment

Seating Arrangement
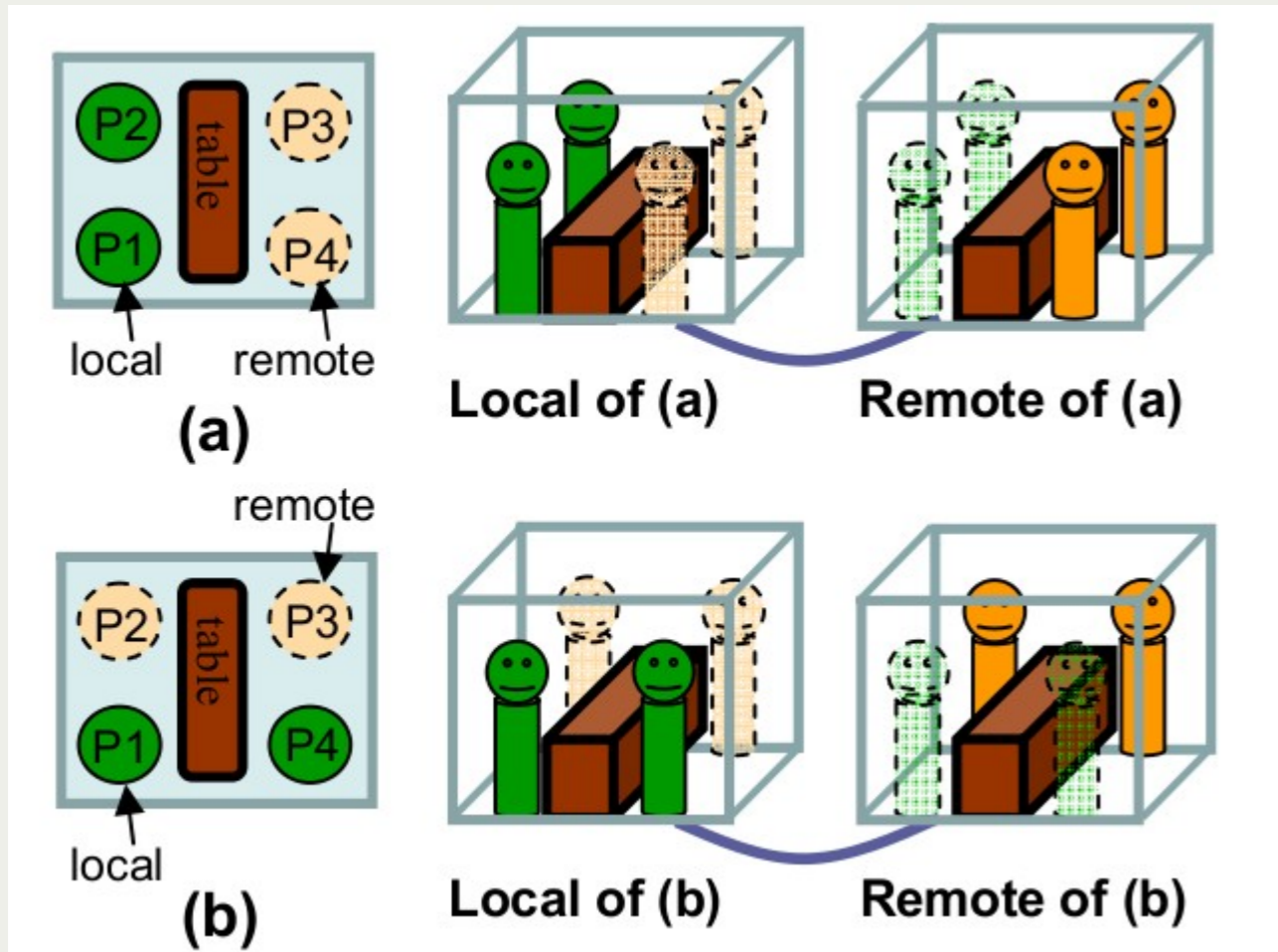
- General Information

- t-Room

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Seating Arrangement
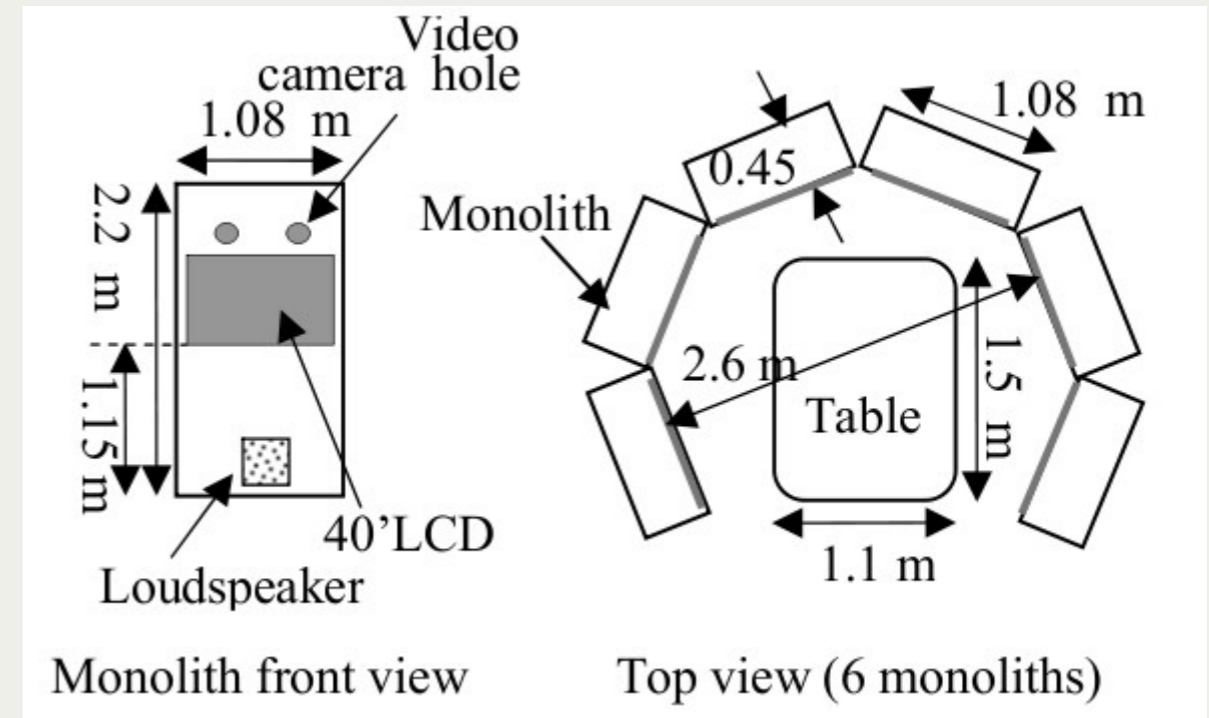
Usually Side-by-Side while having group-to-group Video Mediated Communication

Seating Arrangement depends on the goal of the participants (e.g. locally grouping same opinions)
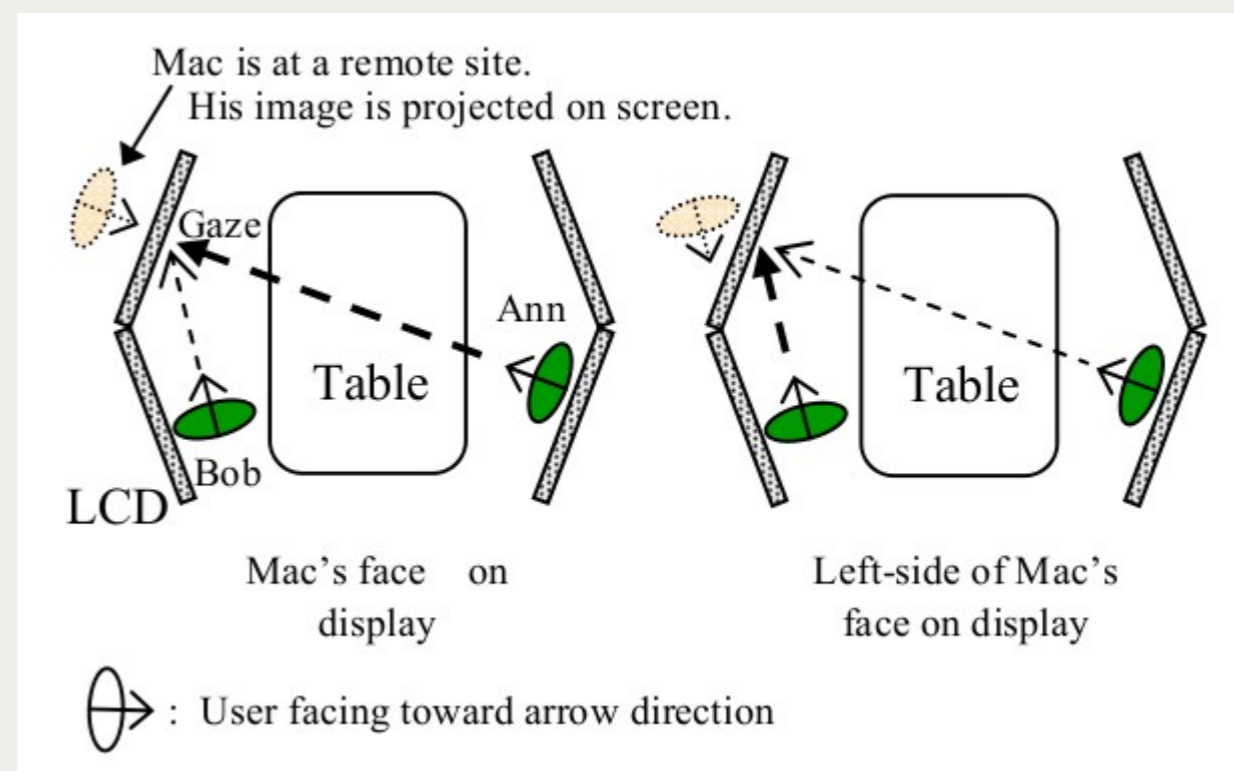
t-Room (Set-Up)

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[3]

[4]

t-Room (in Use)

[5]

[6]

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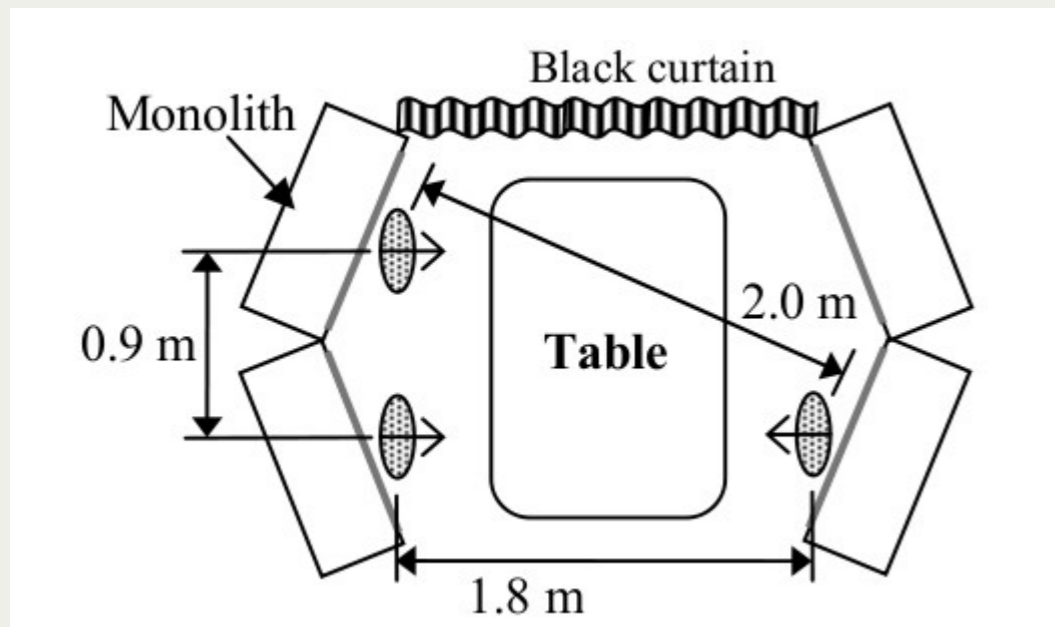MENSCH-MASCHINE-INTERAKTION

"desert survival task"

Task: Order twelve Items by importance after a airplane crash in the desert
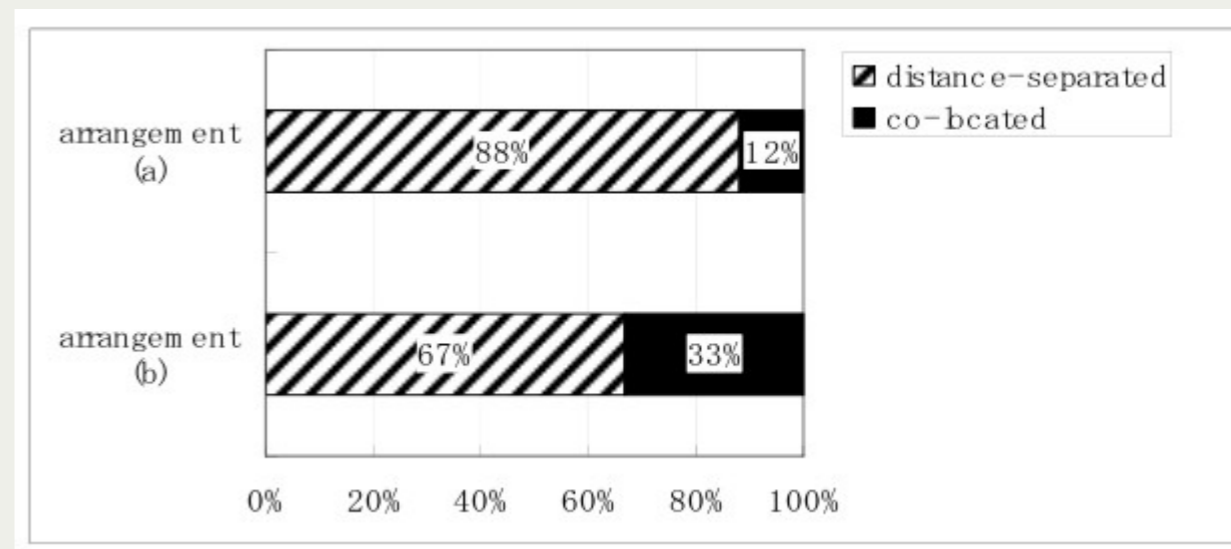
Set-Up:

[7]

"desert survival task"

Results (Speaker Switch)

Overall
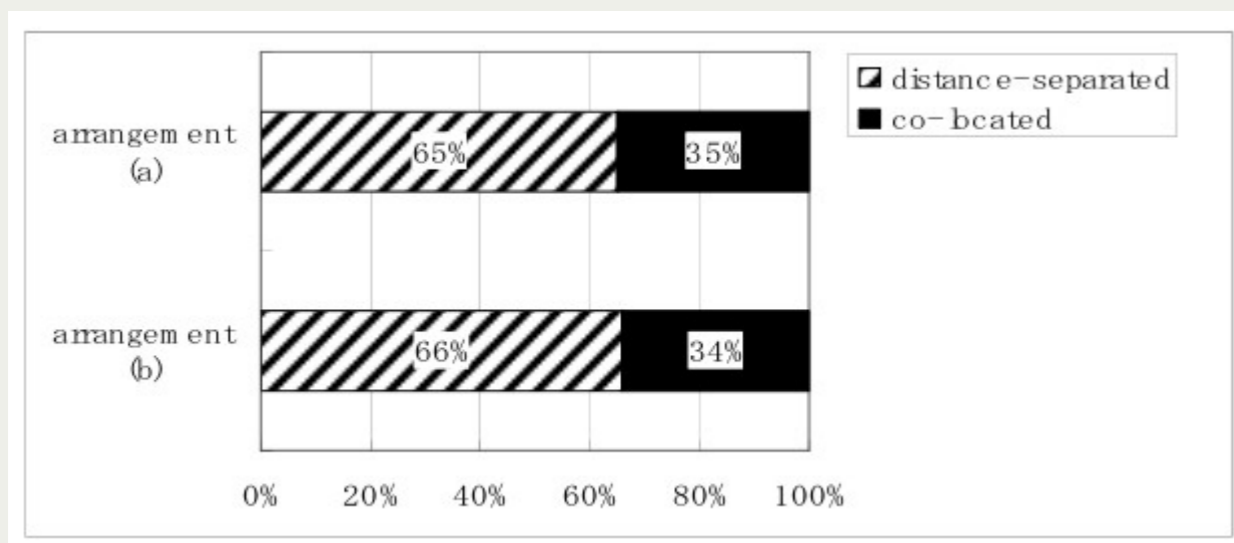
Without mentioning the next Speaker

[8]

[9]

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Thank you for your attention!

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Discussion

What do you think about the importance of Eye-Contact and Sitting arrangement while doing Computer Supported Tasks?

disturbing?

conductive?

dependent?

indifferent?

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[1],[2] Richard Joiner, Eileen Scanlon, Tim O'Shea, Randall B. Smith, Canan Blake Evidence from a series of experiments on video-mediated collaboration: does eye contact matter? In *Proceeding CSCL '02 Proceedings of the Conference on Computer Support for Collaborative Learning: Foundations for a CSCL Community* Pages 371 - 378 UK/USA 2002, International Society of the Learning Sciences

[3],[4],[5],[6],[7],[8],[9] Naomi Yamashita, Keiji Hirata, Shigemi Aoyagi, Hideaki Kuzuoka, Yasunori Harada Impact of seating positions on group video communication In *Proceeding*
CSCW '08 Proceedings of the 2008 ACM conference on Computer supported cooperative work ACM New York, NY, USA 2008