

When being wrong is right!

Effect of adult or child partner on children's awareness of the other in social interactions in a dual or single-user PC tasks



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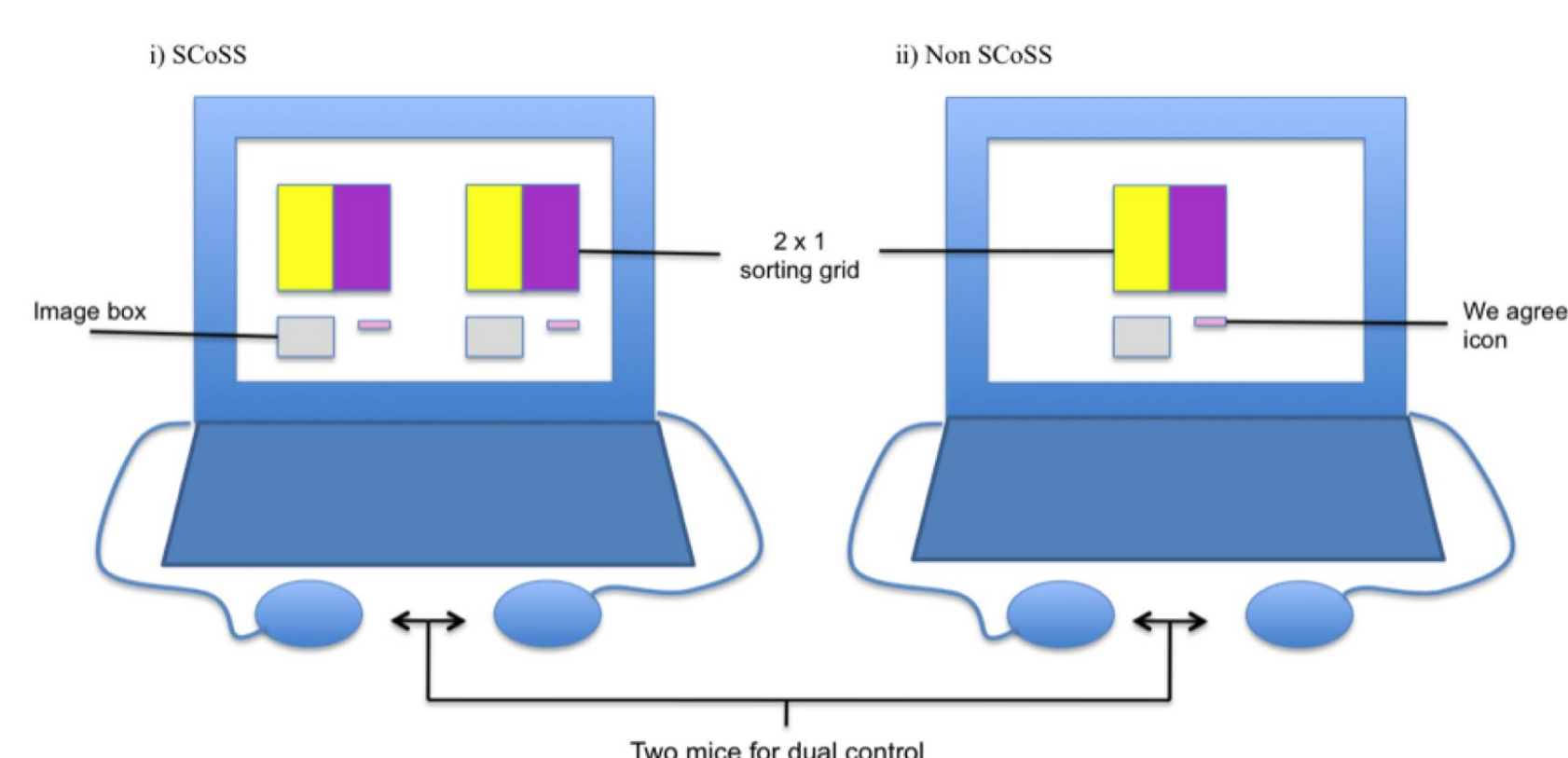


Computers surround children at school and in the home and are often seen as separating children from natural social interaction. So, can computer-mediated interaction with another ever support social interaction skills and does this differ when the partner is a peer rather than an adult?

Experiment

32 children (16 boys, 16 girls) aged 2 – 4 years from two preschools in West Sussex, UK, were compared doing a computer-based picture sorting task.

Two computer interface conditions:



Computer Interface: Separate Control of Shared Space (SCoSS: Pearce et al., 200*)

- The SCoSS interface (above left) was designed to allow two users separate control of a dual-user interface
- In order for players to progress through the game in the SCoSS condition both representations have to be identical, but the pictures do not have to be correctly sorted
- The Non-SCoSS interface (above right) has only one representation of the game
- In Non-SCoSS either mouse can control the game without input from the other user

Two partner conditions:



Peer partner



Adult partner

The children sat in front of the laptop at one of the school's tables. They were shown the game on paper and then completed one sorting task on the computer. Their interactions with the game and with each other were video-taped. Each task took approximately 3 – 10 minutes to complete. Partner and interface condition were between subjects.

Coding scheme

Task behaviour was coded into 4 categories:

- Active other-awareness
- Passive other-awareness
- Approach to task
- Withdrawal from task

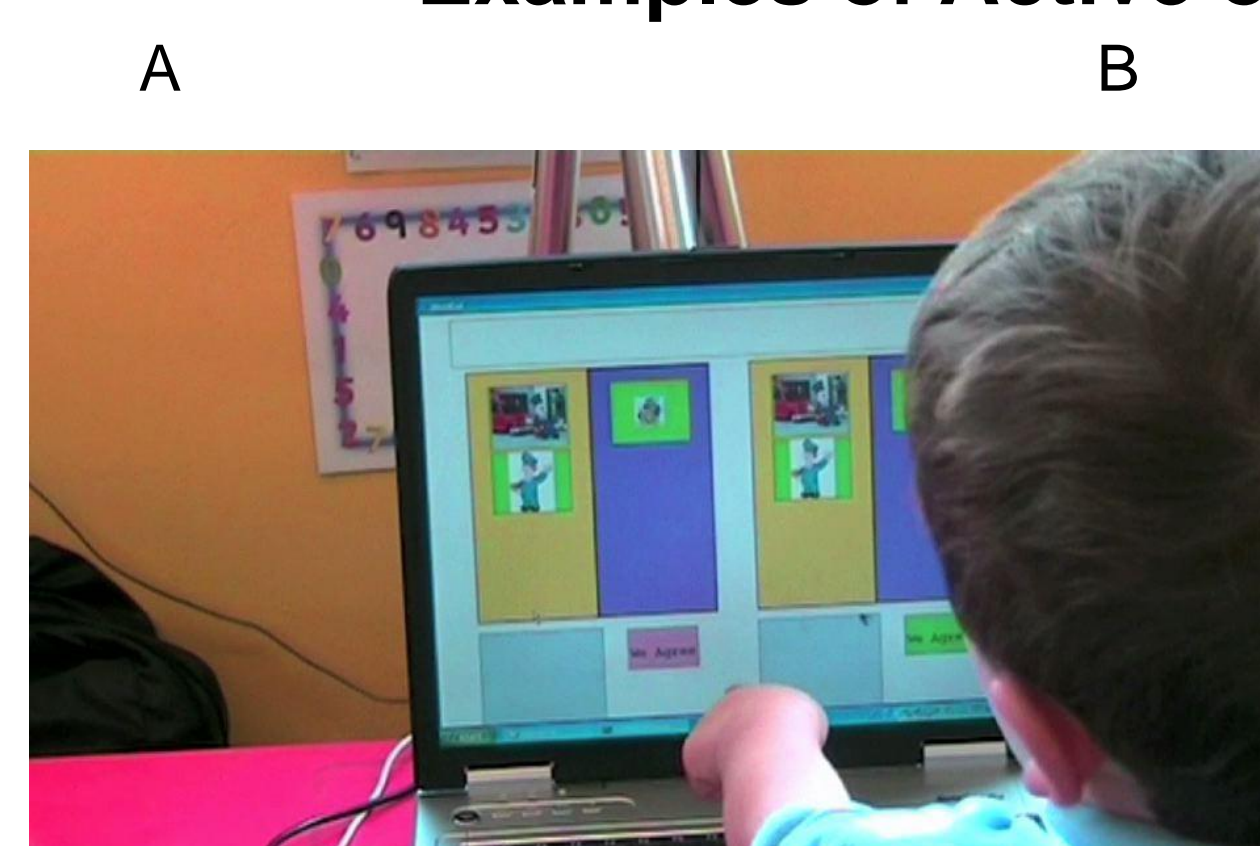
Active other-awareness	Passive other-awareness
Relevance Contingency	Relevance

Relevance: that the action of one child can be deemed relevant to the action of their partner

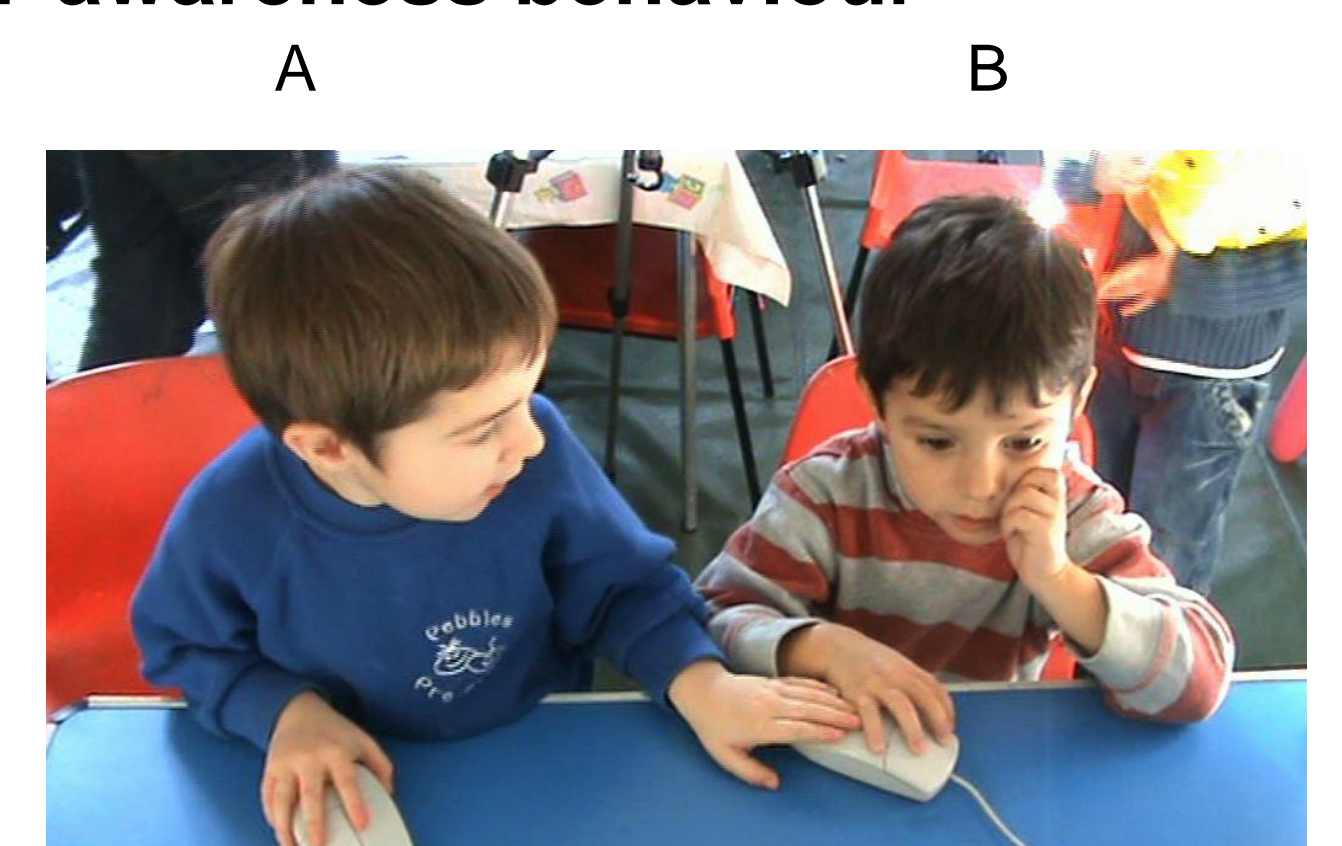
Contingency: the action of one child follows the action of their partner in an appropriate amount of time

Findings

Examples of Active other-awareness behaviour



Child A has correctly matched Child B's game, but hasn't clicked the icon to get another picture so Child B is telling him to press it.



Child A has placed his picture on the grid, child B is taking too long so he decides to give him a helping hand.

Discussion

When partnered with a peer children treated that partner as an equal agent and would engage in turn-taking or waiting for their partner to catch up.

It was often the hold ups in the game where one child got stuck that generated the most social interaction and it was the more able child that elicited most active other-awareness.

The children saw the adult partner as a facilitator and when using the Non SCoSS interface virtually ignored the adult and their repeated attempts to interact.

These findings suggest that a peer provides better opportunities than an adult to develop social cognition and that computer-mediated technology is an ideal candidate to aid the collaborative process.