

## In the news

### IDENTITY CRISIS

Out-of-body experiences are most commonly associated with surgical theaters, but a recent study has brought them out of the hospital and into the lab, and in future potentially into war zones, the therapist's office and even people's own homes.

The researchers attached two cameras to the head of a mannequin and had subjects wear goggles with screens displaying the cameras' images, so that the subject saw whatever the mannequin 'saw'. With the cameras aimed down the mannequin's body, and the subject standing with a similar posture, the subject saw the mannequin's body in place of their own. When they then saw the mannequin's abdomen being stroked and felt a matching sensation on their own abdomen, they felt as if the mannequin's body was their own.

"This shows how easy it is to change the brain's perception of the physical self ... by manipulating sensory impressions," said Henrik Ehrsson, the study's lead researcher. (*Telegraph*, 3 December 2008.) "Critically it depends on ... the combination of visual and tactile signals," he added (*Guardian*, 3 December 2008).

The procedure also worked when the cameras were mounted on another person's head: "This effect was so strong that people could experience being in another person's body when facing their own body and shaking hands with it," said Ehrsson (*Times*, 3 Dec 2008).

The process could be used to help people empathize with others, and to treat body-image disorders. And although attempts to invoke a similar transference into non-humanoid objects were unsuccessful, Kynan Eng, a neuroinformatician at the University of Zurich, thinks it might be possible to "... produce measurable ownership responses to any virtual or real object, such as an often-used tool." (*New Scientist*, 2 December 2008.) This could enable more precise remote control of robots, for example in surgery or bomb disposal, and might have applications in virtual-reality computer gaming.

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