

UC SANTA BARBARA

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## **When the brain leaves the body, does identity move with it? Depends on who you ask.**

Science fiction has an impressive track record predicting advanced technologies. Mobile phones, ATMs and robot vacuum cleaners made their literary debuts about 75 years ago. And as far back as the late 1800s, author H.G. Wells was writing about flying war machines, chemical weaponry and organ transplants.

If today's sci-fi is any indication, our not-so-distant future may feature miraculous advances of the mind, including the uploading of a person's consciousness to the cloud or even a successful brain transplant. But when a person's mind leaves its original body, do their everyday obligations — such as the repayment of debt, for example — move with it?

That depends on who you ask, according to a study of identity and obligation led by experimental psychologist John Protzko in UC Santa Barbara's Department of Psychological & Brain Sciences. "Do Obligations Follow the Mind or Body?" appears in the July 2023 issue of *Cognitive Science*, and its conclusions could help answer moral and legal questions if scenarios in today's science fiction ever become reality.

As a starting point, Protzko and his colleagues turned to the existing literature of influential thinkers, including 17th-century philosopher and physician John Locke, who concluded that identity and obligations belong to a person's mind.

From there, the researchers introduced hypothetical scenarios in which people with obligations — such as debts — suddenly died, but their brains were saved through transplantation to new host bodies. These scenarios were presented to laypeople, who were asked if the obligations moved with the brain. The researchers also applied the same scenarios to accountants, lawyers and bankers to evaluate the response of professionals whose jobs require tracking transfers of obligation within legal frameworks.

Based on education levels and other factors among professionals, “they should have said that obligations more likely follow the brain into a new body,” Protzko said. “Instead, they were even more likely to say that an obligation stays with the body that incurred it, even with someone else's brain inside. This is not what many philosophers would think.

“The views of the professionals we interviewed are particularly important because some elements of science are moving toward brain transplants or even more science fiction scenarios like digitally uploading a person’s mind,” Protzko added. “If those things ever happen, lawyers and other professionals may be called on to weigh in.”

Overall, the researchers found that about a third of the people interviewed believed that obligations and identity follow the body while a roughly equal percentage believed they follow the mind. A third group — dubbed “the splitters” — believed obligations were split between mind and body.

The opinions of the laygroup, Protzko said, were notably more varied. And despite strong philosophical arguments, “many people believed obligations and identity actually tended to follow the body, even with someone else’s mind inside it.”

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