

# Online Research @ Cardiff

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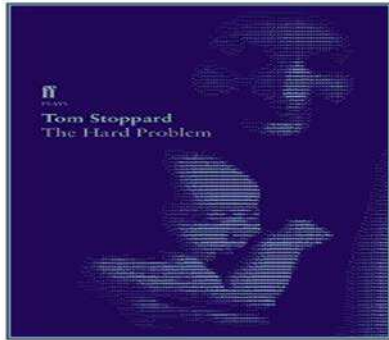
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## Book club: The Hard Problem

Katharine Harding

Figure 1 The Hard Problem (source: <https://d.gr-assets.com/books/1422482851/24736695.jpg>).



In a new departure for our book club, we read a play: *The Hard Problem*,<sup>1</sup> by Tom Stoppard (figure 1), one of the best known dramatists of our time. Though only a short read, our discussion still raised many interesting ideas. Few of our members had read a play before outside of school Shakespeare lessons, and we were initially divided as to whether it was a worthwhile experience. Some had found it liberating, since with dialogue alone, imagination became much more important, particularly in working out a character's reasons and motivations for doing or saying what they did. Others felt that reading a play text seemed clunky and artificial, and something to experience only through watching a real performance.

The story centres around Hilary, a psychology researcher in the Krohl Institute, a neuroscience research centre set up and funded by billionaire Jerry Krohl. It explores questions of consciousness (the eponymous hard problem), altruism and coincidence, via Hilary's discussions with her coworkers, supervisors, and eventually with her research student. Many discussions between the researchers seemed built upon the assumption that the brain is an independent entity. The separation of mind and body/brain (Cartesian mind–brain dualism) remains largely unquestioned in the play but is perhaps unhelpful, particularly in the context of neurological disease. Damásio in *Descartes' Error*<sup>2 3</sup> would have argued that the brain is embodied, that the body affects the brain's function, and that neither can be considered in isolation when discussing consciousness and cognitive function. In general, our members agreed with Damásio, and we found the play's discussion of brain function alone to be a relatively limited view of consciousness.

The play also prompted interesting discussions around artificial intelligence and what this might mean. Towards the beginning of the play, the characters discuss a computer playing chess: is it conscious or not? One character argues that there is no difference between the computer and the brain—described as a biological machine—whereas another says that the computer could not be said to be conscious unless it cared if it lost. On the whole, our members agreed with the second opinion. Even if a machine could be built that behaves as we do, this would not necessarily have solved the problem of consciousness.

An aspect of the play most directly relevant to us was scientific integrity: neurology is an academic specialty with many book club members actively involved in clinical research. In the play, Hilary's research student feels under pressure to produce good results, and omits some data to improve her final results; Hilary fails to pick this up until too late. This came as a welcome reminder that, as doctors and as researchers, we must be honest, open and supportive of our trainees, and definitely should thoroughly check the details of any paper to which we are putting our names.

We also spent time discussing altruism, a side theme through the play, and whether human actions can ever be said to be altruistic. Hilary argues strongly that altruism does exist, although it becomes apparent as the play goes on that she has reasons for wanting this to be true. Other characters of the play disagree, and suggest that actions that may appear altruistic have selfish motives behind them. Although never directly referenced, these arguments seemed to us to be based upon *The Selfish Gene*.<sup>4</sup> It can be tricky to unpick people's motivations, and humans are often complicated and unpredictable, as illustrated by the opening scene where Hilary and Spike discuss the Prisoner's Dilemma, a famous scenario in game theory, which can be drastically altered if one of the prisoners is in love with the other. Overall, we felt that the adventure into play reading was rewarding and

positive. The very different structure of a play script made us think differently, and perhaps engage more than we might have done had the same story been in novel form, and discuss fascinating questions of consciousness, artificial intelligence, and human motivation.

Correspondence to Dr Katharine Harding,  
Department of Neurology, University Hospital of  
Wales, Cardiff CF14 4XW, UK; katharineharding@  
doctors.org.uk

Twitter Follow Katharine Harding at  
@drkatharineh

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