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## Can the mental influence the physical?

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The purpose of the paper is to discuss a question which is essential for the mind-body problem: Can the mental influence the physical? And further: can the objects of the spiritual unembodied world influence the objects of the material world? This question will be discussed by analyzing some of Karl Popper's proposals in his book with John Eccles: *The Self and its Brain*. The paper will be divided into the following sections:

1. **Reductionism:** It will be argued that though reductionisms are important research programs they are not correct. And if the reduction (for example "everything is ultimately material") is carried through in a precise way it turns out that the program does not succeed.
2. **Upward and Downward Causation:** It will be argued that there is interaction from lower levels to higher levels and from higher levels to lower levels in physics, biology, and sociology.
3. **Interaction will be explained among Popper's three worlds:** physical, psychic, and world 3 of the products of human mind. Interactionism between world 1 and world 2 is one possible solution to the mind-body problem which is formulated by Eccles as a detailed description of the "brain-mind liaison."
4. Finally the question will be dealt with how unembodied world 3 objects can have an effect on the physical world 1.