Philosophy of Psychology
Week 5

- 11am to 12:25
  - Last week's team exercise
  - New topic: science and folk psychology
  - Nagel's article
- Test 1 beginning at 12:50 sharp. Be back at 12:45.

Last week's team exercise

- Would you exchange your brain for a computer?
  - There are clear advantages, but would you remain conscious? This is the key question.
  - Neither dualism or materialism guarantees that you would remain conscious (or that you wouldn't).
  - However, it seems more likely that you would no longer be conscious if EPM is true. Since the computer only duplicates efficacious properties of the brain, that it duplicates consciousness would be a complete fluke.

Science and folk psychology

- What is folk psychology (FP)?
- It is the totality of common sense assumptions we make about the mind - the theory of mind we use in our everyday dealings with others

Science and folk psychology

- Some claims which seem to be part of FP
  - People act to maximize their *desires* (short-term and long-term). They determine how to maximize their desires using their *beliefs* about what actions will achieve what.
  - Satisfaction or disatisfaction of desires is directly reflected in *how one feels* (satisfaction of one's desires makes one happy, dissatisfaction unhappy)
  - We know our own mental states by *introspection,* a kind of “inner perception”. All mental states can easily be introspected whenever desired.

Science and folk psychology

- FP could be in conflict with scientific findings and theories from various fields:
  - neuroscience
  - psychophysics
  - developmental psychology
  - social psychology
  - etc

Science and folk psychology

- Science can challenge folk psychology in two main ways:
  - It can show folk psychology to be false by uncovering empirical facts incompatible with it. Relatedly, it can uncovered empirical facts which bring out inconsistencies in FP.
  - It can provide competing explanations of human behaviour.
- These two kinds of challenge are independent.

Science and folk psychology

- Examples of FP claims which have been challenged
  - FP claims that people try to maximize the satisfaction of their desires. Perhaps we follow *heuristics* instead (Goldstein and Gigerenzer, 2004)
  - FP suggests that mental states are all directly accessible through introspection. But perhaps numerous states are inaccessible through introspection, as Freud claimed.

Science and folk psychology

- Competing explanations may or may not make reference to the same *entities.*
  - For example, the best neuroscientific explanation of behaviour could turn out to make reference to desires, or it might not (most likely).
- Either way, folk psychology would be challenged by alternative explanations of behaviour.
  - However, the challenge is greater if science does not share the “ontology” of folk psychology. Then beliefs, desires and other folk psychological states might go the way of phlogiston.

Science and folk psychology

- How bad is the challenge today?
- An important distinction:
  - Core folk psychology: the set of claims which are most central to folk psychology and cannot be given up without radical change in how we think about people.
  - Full folk psychology: the totality of common sense assumptions about the mind.

Science and folk psychology

- Many claims which are part of FFP have probably been refuted or been shown to be useless in explaining human behaviour.
- But whether there is a serious challenge for core folk psychology is a highly debated question. This is our topic.

Nagel on Brain Bisection

- Nagel aims to challenge our ordinary conception of minds.
- He argues for two claims:
  - The ordinary conception of minds doesn't apply to split brain subjects.
  - The ordinary conception of minds doesn't apply to ordinary subjects either.
- Nagel concentrates on an implication of the ordinary conception: minds only exist in whole numbers.

Terminology

- Nagel sometimes says he is challenging the ordinary conception of persons or the unity of persons
  - This is because he is equating persons and minds (1 mind = 1 person)

Some basic facts

- By and large, the left side of the body corresponds to the right side of the brain and vice-versa. This is true in particular of vision, touch, and smell. (But not hearing.) This is true also of motor control below the neck.
- Speech production is generally controlled by the left hemisphere, though one can understand speech and communicate non-verbally with one's right hemisphere.

Effects of commissurotomy

- In normal conditions, the behaviour of split brain subjects is essentially indistinguishable from that of normal subjects. They are usually treated as completely normal persons by their friends and relatives.

Effects of commissurotomy

- However, they exhibit spectacular anomalies in controlled conditions.
  - Stimuli which are presented only to the left hand side ...
    - Cannot be reported verbally. (Verbally, the subject denies seeing / touching anything.)
    - But, at the same time, can be acted upon on the left hand side.
  - The two sides of the body are capable of acting independently in ways ordinary subjects are incapable of.
    - A SB subject can search for something with one hand while search for something else with the other.

Effects of commissurotomy

- Overall:
  - It appears that, in SB cases, each hemisphere fulfils most of the functions of the brain entirely independently. In particular, each side of the brain is separately capable of:
    - Perception
    - Memory
    - Communication
    - Action

How many minds do SB subjects have?

1) One mind on the left side only: the right hemisphere hosts no mental states
2) One mind on the left side only: the right hemisphere hosts no mind, but it hosts detached mental states
3) Two minds (one for each hemisphere)
4) One mind based in both hemispheres
   - What is going on in either hemisphere is part of the same mind, albeit a disjoint one. (opt 4)
5) Sometimes one (in normal circumstances) and sometimes two (when stimuli on the left and right sides come apart) (opt 5)

Against option 1

- Against option 1 (nothing mental in the right hemisphere)
  - Even though SB subjects deny awareness of visual or tactile stimuli presented to the left hand side, their right hemispheres are perfectly intact. It seems very unlikely that they do not support consciousness.
  - Nagel points out that we would not say that a subject who lacks a left hemisphere is unconscious.

Against option 2

- Against option 2 (right hemisphere supports consciousness, but no mind)
  - The activities of the right hemisphere are as well integrated as those of any normal brain or the left hemisphere.
  - “The right hemisphere follows instructions, integrates tactile, auditory and visual stimuli, and does most of the things a good mind should do.” (p. 157)

For option 3

- For two minds
  - Each side of the brain seems to produce its own perceptions, beliefs, skills, memories, and actions connected together in the usual way, but not with those of the other side.
  - It seems impossible to imagine what their visual consciousness would be like if they have just one.
    - Particularly so if the left and right hemispheres fill in the left and right visual fields (which they cannot perceive) differently (suggested on p. 159).
    - Their visual experiences must be like those of two separate persons.

For two minds

- Conscious states on either side seem to be disunited: they cannot be accessed from both sides. This contradicts the common sense assumption that one can always be conscious of relations between one's conscious states.
- SB patients, seem to be capable of simultaneous, incompatible activities on each side, e.g. attention to two incompatible tasks.

For option 4

- For one mind that spans both hemispheres
  - To start, SB patients behave normally in normal conditions.
    - They achieve this by various means:
      - Use of information shared by the hemispheres (e.g., auditory information)
      - Bilateral stimulation. Normally, similar information reaches both hemispheres, e.g.,
        - if one touches an object with both hands
        - normal, automatic eye movements are rapid and frequent enough that both hemispheres tend to see what there is to see

For option 4

- SB subjects are naturally described as having consistent mental states and attitudes. This warrants ascribing them only one mind. That they are not using a corpus callosum to achieve consistency does not matter.
- SB subjects are treated as single persons / minds by people who know them well. We should count on these people.

Against option 5

- Against one mind sometimes, two otherwise
  - How can minds be created and destroyed so easily?
  - The behavioural splits exhibited in experimental settings are limited, e.g., limited to a particular task. The subjects remain largely coherent.
  - Who's who: when the mind splits in two, which hemisphere hosts the original person? Or does the original person die (to resurrect after the experiment)? (Not in Nagel)

Conclusion regarding SB

- SB subjects neither have one nor two minds. We don't want to say they have zero or three or four (etc) either. So there is no whole number of minds they can be said to have (if the preceding reasoning is correct).
- This would tend to suggest that the notion of a “mind” is confused and should be scraped.

Minds in general

- Nagel generalizes to normal cases
  - What the SB cases illustrate is that how many minds one has must be determined by how one's brain integrates information, but information can be more or less well integrated. Any attempt to individuate minds in terms of cognitive integration is doomed for this reason.