

# How scientific is psychology?

You are learning about...	You are learning how to...
<ul style="list-style-type: none"> <li>• The scientific method</li> <li>• Approaches to psychology</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss approaches and debates in psychology.</li> </ul>

## What are we calling science?

Science refers to a particular way of knowing about the world in which experience and reason take priority over intuition and authority. In order for science to take place, those involved need to agree to a great extent on what they are studying, how they will study it and how they will couch their explanations.

Scientific theories are logically constructed and based on empirical evidence. Scientific theorising is self-correcting, in that when a theory is wrong it will eventually be shown to be so by the evidence scientists obtain. Scientific theories are not to be regarded as ‘the ultimate truth’ as even if they can account for all the evidence currently available there might always be some evidence that arises in the future that shows them to be wrong. Scientific evidence should be used to test hypotheses. Where theory and evidence conflict it is the theory that must be changed, provided the researcher is satisfied that the evidence is valid. The theories and hypotheses that scientists put forward must be constructed specifically enough that they can, in principle, be proven wrong.

Scientific evidence must be empirical: it must be based on observations of the real world. To count as scientific evidence it must be systematically obtained and objective in nature. It must also be reliable – another researcher should be capable of reproducing the evidence if they follow the method by which it was obtained. Consequently, scientific researchers are expected to be open about their research and to submit it to the scrutiny of their peers, who should rigorously examine the methodology used and the data thereby obtained. A scientist’s authority should not matter if their methods are suspect.

## What are we calling psychology?

Psychology is not an especially coherent discipline. It overlaps with many other fields of enquiry including sociology, biology and computer science, to the extent that any two people who call themselves psychologists might have little in common. This makes the question ‘is psychology a science’ difficult to answer because the answer may well depend on which bit you’re looking at. We have studied six different approaches to psychology:

- Biological psychology
- Behaviourism
- Social learning theory
- Cognitivism
- Psychodynamic psychology
- Humanistic psychology

1. **To what extent do these approaches conform to the account of science outlined above? Consider how they obtain their evidence and how they construct their theories.**
2. **To what extent does the existence of so many approaches to psychology undermine any claim that psychology is a science?**
3. **To what extent does the adoption of the scientific outlook commit you to particular positions in the big debates in psychology (freedom v. determinism; nature v. nurture; holism v. reductionism; ideographic v. nomological)?**