# BEHAVIOUR AND PSYCHOLOGY

## Contents

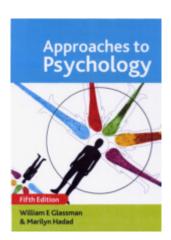
Magic, Perception and Behaviour

The Origins of Psychology

<u>Perception</u>

Research Methods

Applying the Concepts: Introspection



# Magic, Perception and Behaviour

At various moments in our lives, we all think about behaviour – trying to better understand our own actions, or those of others. In some cases, behaviour can seem as puzzling as a magic trick – and like magic tricks, our interpretations often depend on what we *expect* to occur. In order to illustrate this, I have developed a type of mindreading experiment; if you would like to try it, <u>click here</u>.

To make sense out of this trick, you need to systematically study the situation, and your own behaviour. Like any good magician, I won't give you the secret, but I will say that applying the kind of careful observation and testing of hypotheses used in science (and discussed in the text) should enable you to figure out how it works!

As a discipline, psychology seeks to understand behaviour through systematic study, drawing upon the traditions of Western science. As *Approaches to Psychology* discusses, psychology uses various frameworks to explain the way we behave. To understand this, one needs to explore several issues, including the **history** of the discipline, the role of **perception** in behaviour, and the various **methods used in research** on behaviour.

# The Origins of Psychology

Psychology is a relatively young discipline in formal terms, with the first university departments having been created just over a hundred years ago. Not surprisingly, its origins can be linked to philosophy and medicine, though its development has also been influenced by biology and other fields (including the even-younger field of computer science).

## Resources

# Classics in the History of Psychology

Excellent online archive of classic articles in psychology, maintained by Christopher Green of York University, Toronto, Canada

## Resources in the History of Psychology

Maintained by Cheiron, the International Society for the History of Behavioural and Social Sciences

# History of Psychology Archives

Biographies and other material related to the history of psychology; maintained by the department of psychology at Muskingum College.

# The Rise of Experimental Psychology

An essay from Serendip, an on-line journal.

# **Perception**

As noted in the text, perceptual processes play a large role in our everyday behaviour, and also help us to understand why psychology developed as a series of distinctive approaches. While the question of whether theories are an objective descriptor of the world or simply a result of perceptual and social processes (see Chapter 10 of text), there are many examples of how perception influences our experience.

Some further examples of ambiguous figures:

Old Woman or Young Woman?



Which Way Is She Spinning?



#### Resources

#### Sensation and Perception Tutorials

Site maintained by David Krantz, University of New Hampshire; contains examples related to Gestalt theory, as well as a variety of other material.

#### The Joy of Visual Perception

A Web-based book by Peter Kaiser, York University, Canada; emphasises sensory aspects of vision, but also contains information about perception and illusions.

#### Vision Island

A collection of perception demonstrations (with explanatory discussions); part of the <u>Epsych</u> website at Mississippi State University, which also has material related to the history of psychology, biological psychology, and more.

## Senses Challenge

An interesting set of perception demonstrations, done as a self-test; from the BBC.

#### Perception Snacks

Some do-it-yourself demonstrations from the San Francisco Exploratorium, a museum which is famous for its hands-on science exhibits.

# **Research Methods**

Doing experiments does not necessarily require a laboratory full of equipment. Instead, the essence of an experiment requires the ability to manipulate an independent variable, and sufficient control of the situation to avoid problems like poor sampling, confounding variables, and measurement errors. (See Chapter 1 and the Appendix for more on these subjects.) For those inclined to engage in some personal research, the following demonstration is easy and fun.

#### Taste preferences

Most people have preferences when it comes to beverages, and claims of significant differences between competing brands (such as Coke and Pepsi) are often fostered by the companies themselves. But can people really distinguish the difference? In order to find out, you can conduct a taste test with several friends, using the brand of cola as the independent variable. (Note you could also do this with other foods, such as different brands of potato chips or crackers.) There are various ways to carry this out, but in planning your experiment, you should consider the following questions:

Who are your participants, and how do you select them?

- Should participants know what they are drinking? If not, how do you make it a single blind design?
- Could the experimenter bias the outcome if he/she knows what each sample contains? If so, how do you make it a *double blind* design?
- Does the order in which participants taste the products matter? If it does, how
  does one control for possible order effects? (Hint: can one counterbalance the
  order?)
- Should prior preferences be considered in analysing the results?
- What exactly are you trying to measure? Taste preferences, or correct identification of brand, or both, or what? (i.e., you must determine your dependent variable(s).)

You might find the results surprising, but before you rush to submit your study for publication, think about whether it is well-designed, or are there ways you could have improved it? (Designing good research studies requires both knowledge and creativity.)

#### Resources

## Psychological Experiments on the Internet

This site at the University of Mississippi offers both a chance to do some on-line experiments, and provides resources related to the growing use of the Web as a means of recruiting participants for serious psychological research. (One issue to consider: are samples drawn from Web users likely to be representative of the general population? In what circumstances might that matter or not?)

# **Applying the Concepts: Introspection**

Even though introspection, or looking inward, has been demonstrated to be an inadequate technique for studying thinking, it is still a technique that most of us use on a daily basis. In fact, we can all recall a parent or teacher telling us to "Think!" or asking us "What were you thinking when you did that?" For day-to-day living, introspection seems like a good idea, whether it involves making up a list of pros and cons when making a decision or responding when asked why we hold a particular opinion. Yet, there is evidence that sometimes we can think too much, and decrease the quality of our decisions in doing so.

Wilson & Schooler (1991) hypothesised that sometimes we make decisions or form opinions based on reasons that are unknown to us. When we are asked why we feel a particular way or why we made a certain decision, we feel compelled to create reasons that sound plausible to us. These reasons may be plausible, but they are not the reasons that guided our opinions or decisions. As we create plausible reasons or focus on certain aspects of a situation, however, we may start to convince ourselves that these reasons really were the ones that shaped our opinions or decisions. Then, when given the opportunity to make a new decision or form a new opinion, we may now have an attitude that is more in line with the reasons we constructed than with how we felt in the first place.

To test this, Wilson & Schooler performed an experiment using undergraduate students as subjects. They first obtained rankings by trained experts of 45 kinds of strawberry jam, and they selected 5 of these, the jams ranked 1st, 11th, 24th, 32nd, and 44th. A taste of each jam was given to 49 subjects. In the experimental group, the subjects were asked to list their reasons for liking or disliking each jam. This task, then, was the independent variable for the experimental group. In the control group, the subjects were asked for reasons why they chose their major. That is, they were given a filler questionnaire so that the two groups would spend a comparable amount of time in this part of the experiment. Both the experimental group and the control group were told that these questionnaires were only for the purpose of helping the subjects "organise their thoughts" and the experimenters made a display of throwing the questionnaires into a trashcan without reading them. This was done so that subjects in the experimental condition would not feel that, in a subsequent part of the experiment, they had to act consistently with the reasons they gave or that the experimenters were examining their consistency (i.e., to remove demand characteristics). In fact, however, these questionnaires were retrieved from the trashcan so that the experimenters could indeed check on the consistency of the subjects' opinions. Both groups of subjects were then asked to evaluate the jams. The evaluation was the dependent variable.

Wilson & Schooler found that subjects in the control group, who had not been required to list reasons for their opinions about the jams, gave evaluations that were very close to those given by the trained experts. Both the subjects and the experts agreed on which jams were best, and which were worst. The subjects in the experimental group, who had been required to explain their preferences, subsequently evaluated the jams in line with the reasons they gave on the questionnaire that had been retrieved from the trashcan. Their evaluations, however, did not correspond well with the evaluations of the experts. The jam the experts had rated as the best and the jam the experts rated the worst were both regarded by the experimental subjects as being rather mediocre.

Presumably, then, if the subjects had been allowed to select a jam to take home with them, the subjects who had not been required to introspect about their opinion would leave with the jam that was objectively rated as the best, while the unfortunate subjects who had been required to introspect in justification of their preference would have taken home a truly unremarkable jam! Sometimes, it seems, the answer "I like it just because I like it" is the best one!

#### Reference

Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. Journal of Personality and Social Psychology 60, 181-192.

© William Glassman, 2008.