



Case Study : Participants go further for 'hard' science studies



the british
psychological society
the psychologist

This article has been sourced from the BPS, written by Emma Young on 03 January 2024 and can be accessed directly via the link below:

<https://www.bps.org.uk/research-digest/participants-go-further-hard-science-studies>

Article

Recent **re-examinations** of Stanley Milgram's **classic studies** into how far people will go when instructed to harm another person have led to a shift in ideas about the reasons for the results. Rather than being related to 'obedience to authority', it's been suggested that a participant's level of identification with the scientific cause in question could explain how willing they are to continue with a task that they believe is hurting someone else.

If true, this 'engaged followership' theory would mean that scientific research has a potential dark side — the more that a participant believes that the work is important, the more willing they are to obey potentially harmful instructions. A **recent paper** in the *British Journal of Social Psychology* now provides evidence in support of this.

Megan E. Birney at Staffordshire University and colleagues ran a series of studies to explore whether people who were told they were taking part in a 'hard' science experiment — purportedly run by a team of neuroscientists — would go further in a task that became increasingly unpleasant than participants who'd been told that the study was being run by a 'soft' social science team.

In fact, the task was the same in both cases: participants were shown a series of 30 photos of groups of people and had to pick a word from a list of negative adjectives to describe each one. These words included: deceitful, stupid, arrogant, and lazy. In the beginning, the photographs were of clearly unpleasant people — such as members of the Ku Klux Klan — but, as the task progressed, the people depicted became progressively less offensive and more pleasant, culminating in a family walking in a park. Participants didn't have to complete the full task, however. An earlier pilot study had confirmed that people found the task increasingly aversive, and the participants were allowed to stop whenever they wanted. Ethical approval was granted by the Psychology Ethics Committee at the first authors' institution at the time the study was conducted.

Earlier work has found that people tend to regard neuroscience as being more scientific and take it more seriously than social science. (The team notes that psychological research that is described with neuroscientific terms tends to be judged more favourably, even when those terms are **completely irrelevant** to the actual research.) So the team suspected that when the task was presented as being run by neuroscientists, participants would work their way through more photographs than when it was presented as being run by social scientists. Once participants clicked on the link to begin the study, they were told that the study was being conducted either by a 'Cognitive Neuroscience Research Group' or by a 'Social Science Research Group' and they were asked to complete a manipulation check followed by three items measuring their trust in scientists. At the bottom of each screen there were two buttons: one which read 'Click Here to Continue' and another, smaller button, which read 'Stop Study'. If participants clicked the 'Continue' button, then a new page with the next image in the sequence came up, and the process was repeated until they pressed the 'Stop' button or had responded to the last (30th) picture.

Across two studies, this is precisely what they found, with the participants also reporting that they considered neuroscience 'more important' than social science. This provides evidence that neuroscience, compared with social science, evoked more followership, the team writes. A third study did not find these results. However, because this third study was run eight months into the Covid-19 pandemic, the team suspects that these participants may have placed a higher value on social science than the earlier groups did. They both rated social science as being as important as neuroscience and went as far in the task for social scientists as for neuroscientists.

In a fourth study using the same photo task, the team also explored how participants' perceptions of the seriousness of a scientific discipline related to other attitudes towards the researchers and the study. They found that those who perceived the study to be more serious also had more trust in the researchers, found the study more worthwhile, disliked the task less, and were happier to have taken part. They also felt they had made a wider contribution to society by participating and completed more trials than those who didn't take the study seriously.

"Together, these results provide support for a core tenet of the 'engaged followership model of obedience' " write the researchers. "Namely, that people's willingness to follow the instructions of an authority figure even when they find the task aversive is influenced by their beliefs about the cause they are supposedly advancing."

In this particular study, the participants weren't asked to harm anyone else, and there are some limitations to the conclusions that can be drawn — especially as the third study did not get the same results as the first two. But the results do support the idea that the more that people believe that a cause — in this case, science — is worthy, the more willing they are to put any concerns aside.

To access the full paper, please visit the article and follow the link at the very bottom: <https://doi.org/10.1111/bjso.12603>

The British Psychological Society (BPS) publishes articles like this regularly, with free access, under the Research Digest section of its website.

<https://www.bps.org.uk/research-digest/>

To access this article, the full research paper or others like it, please follow the link above.





Case Study : Participants go further for 'hard' science studies

Links to Specification

1.1 Content

- 1.1.1 Theories of obedience, including agency theory and social impact theory.
- 1.1.2 Research into obedience, including Milgram's research into obedience and three of his variation studies: Rundown Office Block (Experiment 10), Telephonic instructions (Experiment 7), Ordinary man gives orders (Experiment 13) as they demonstrate situational factors that encourage dissent.

1.6 Issues and debates

- Reductionism
- Psychology as a science
- Nature-Nurture
- Ethics
- Issues of social control
- The use of psychological knowledge within society
- Issues related to socially sensitive research

2.2 Methods

- 2.2.1 Designing and conducting experiments, including field and laboratory experiments.
- 2.2.2 Independent and dependent variables.
- 2.2.3 Experimental and null hypotheses.
- 2.2.4 Directional (one-tailed) and non-directional (two-tailed) tests and hypotheses.
- 2.2.5 Experimental and research designs: repeated measures, independent groups and matched pairs.
- 2.2.6 Operationalisation of variables, extraneous variables and confounding variables
- 2.2.9 Objectivity, reliability and validity (internal, predictive and ecological).
- 2.2.10 Experimenter effects, demand characteristics and control issues

9.3 Issues and debates

- Reductionism
- Ethics
- Nature-Nurture
- Issues of social control
- The use of psychological knowledge within society
- Issues related to socially sensitive research

Recommended revision and research activities:

1. "Should the perceived legitimacy of scientific authority influence obedience—even if the task is unpleasant?" Write a 200-word position statement, referencing how the study supports or challenges traditional interpretations of Milgram's obedience findings.

2. Investigations into high-profile corporate scandals—such as those at Enron, Volkswagen, News Corp, and BP—suggest that employees' strong identification with their CEO played a key role in unethical behaviour. Research one of these scandals and explain how the results from the study can support/refute the scandal.

3. Challenge task: Create two surveys describing the same unpleasant task but framed as conducted by neuroscientists (hard science) or social scientists (soft science). Ask ~20 peers to indicate how far they'd go on a Likert scale (e.g. "How many trials would you complete?"). Compare average responses and assess if perceived prototypicality influenced followership as the study found. Summarise your findings in a bar chart.

Exam style questions

1. Explain how this study supports agency theory. (2)
2. Explain how this study refutes social impact theory. (2)
3. Explain one strength of this study. (2)

[\(Click here to view Model Response sections\)](#)

Additional questions for which the content of the article can be used as part of a response

1. Evaluate the scientific status of Social Psychology. (8)
2. Assess ethical issues in Social Psychology. (8)

*Exam style questions are not necessarily the exact format of those that will appear in the qualification examination papers but are written to elicit student responses that meet the assessment criteria, which are exemplified by the answers provided. The length of response in the answers is not indicative of expected student responses, and are provided to support centre teaching, student practice and self-assessment.





Case Study : Participants go further for 'hard' science studies

Model Response - [Click here to return to question page](#)

Exam style questions:

1. Explain how this study supports agency theory. (2)

- This study supports the concept of the legitimate authority figure. For example, across two studies conducted by Birney, it was found, that participants reported that they considered neuroscience 'more important' than social science and therefore they completed more of the task of labelling photographs. This supports agency theory because ppts were more likely to comply and complete the research task when they viewed the person given the orders as having more legitimacy as an authority figure. For example, neuroscientists were viewed as having more legitimacy as an authority figure than social sciences because they were viewed to be a 'harder science.'

2. Explain how this study refutes social impact theory. (2)

- This study refutes the social impact theory concept of immediacy. For example, once participants clicked on the link to begin the study, they were told that the study was being conducted either by a 'Cognitive Neuroscience Research Group' or by a 'Social Science Research Group' and they were asked to complete a manipulation check followed by three items measuring their trust in scientists. Therefore, this suggests that immediacy may not be a social force to influence obedience as the researcher from either condition were not present in the room where the ppts completed the task, yet ppts still completed part are all the photograph tasks.

3. Explain one strength of this study. (2)

- One strength of this study is that it is high in reliability. For example, the procedure was standardised such as the task was the same in both cases: participants were shown a series of 30 photos of groups of people and had to pick a word from a list of negative adjectives to describe each one. Therefore, since the procedure was standardised, the researchers could replicate their study on that a participant's level of identification with the scientific cause in question could explain how willing they are to continue with a task that they believe is hurting someone else can be replicated again to test for consistency of results.

Marks awarded and commentary

1. This response would achieve full marks: identifying how it supports the concept of legitimate authority figures by using a result from the study(1) and justifying with how the result supports the theory.
2. This response would achieve full marks: identifying the weakness is that the study's results refutes immediacy since the questionnaires were not completed in the researcher's presence; instead, ppts clicked the link. (1) and justifying with the result from the study and explaining how this does not support immediacy, therefore it maybe less of a social force(1).
3. This response would achieve full marks: identifying study being reliable (1) and justifying how the standardised procedure can lead to replication to test for consistency of results . (1).





Case Study : Participants go further for 'hard' science studies

Model Responses - ([Click here to return to question page](#))

Additional questions for which the content of the article can be used as part of a response

1. Evaluate the scientific status of Social Psychology. (8)

The following paragraphs could form part of the answer to this question:

(AO1) For Psychology to be considered scientific it needs to have objectivity. Objectivity is the principle that scientific investigations and their findings should be based solely on observable facts and unbiased data, not influenced by researchers' personal beliefs, values, or emotions. Social psychology can be viewed to be objective due to the use of closed ended questions.

(AO3) For example, Birney used 30 photos of groups of people and had to pick a word from a list of negative adjectives to describe each one. These words included: deceitful, stupid, arrogant, and lazy. This can be said to be objective because the analysis of the results involved counting the number of responses each ppts completed in each condition (hard or soft science). Meaning that the conclusions drawn about obedience and perception of the authority figures would be free of researcher bias. Therefore, Social psychology can be considered scientific. A strength of social psychology being scientific is that objectivity leads accurate results resulting in valid conclusions drawn valid. This allows for more practical application of results, for example, the idea that the more that people believe that a cause — in this case, science — is trustworthy, the more willing they are to put any concerns aside and obey.

2. Assess ethical issues in Social Psychology. (8)

The following paragraphs could form part of the answer to this question:

(AO1) The right to withdraw means participants must be informed at the outset that they can stop participating at any time without penalty, and that they may request for their data—including recordings—to be removed or destroyed, even after the study ends, within specified timeframes. Social psychology can be considered ethical because ppts are given the right to withdraw.

(AO3) For example, in Birney's research into obedience and views on hard and soft science ppts were given the right to withdraw. At the bottom of each screen there were two buttons: one which read 'Click Here to Continue' and another, smaller button, which read 'Stop Study'. If participants clicked the 'Continue' button, then a new page with the next image in the sequence came up, and the process was repeated until they pressed the 'Stop' button or had responded to the last (30th) picture. Suggesting that ppts could leave the study at anytime, which was evidenced in not all ppts completing all 30 picture tasks, in the social science condition. This means that social psychology is ethical because ppts have the right to withdraw. The implication of this is that when ppts are given the right to withdraw it means that ppts can leave research in social psychology when they start to feel uncomfortable therefore avoiding distress.

Level awarded and commentary

1. Evaluate the scientific status of Social Psychology. (8)

The first paragraph (AO1) demonstrates accurate and thorough knowledge and understanding of a feature of science. Paragraph two (AO3) justifies Social psychology is scientific using evidence of objectivity. A judgement is made followed by an evaluation point that links back to the question. With the inclusion of competing arguments and similarly structured paragraphs including other pieces of research from Social Psychology this would be a level 4 response overall.

2. Assess ethical issues in Social Psychology. (8)

The first paragraph (AO1) demonstrates accurate and thorough knowledge and understanding BPS guideline of the right to withdraw. Paragraph two (AO3) justifies with research from social psychology making a judgement and drawing a conclusion with the implication. With the inclusion of competing arguments and similarly structured paragraphs from Social Psychology this would be a level 4 response overall.

