

# 'Silent' outcome switching

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## Outcome switching

Changes to research methodology or reporting, such as **outcome switching**, should be **declared openly and transparently**, accompanied by sufficient explanation and discussion to provide context for the change.

Researchers must also ensure the fulfilment of any regulatory, legislative, governance or other requirements when making changes to methodology or reporting, for example making sure they have sought and received approval from the relevant research ethics committee.

## Concerns

Problems arise when changes are **not declared** openly and transparently, following good practice standards, whether because of a mistake or deliberately.

In general terms, UKRIO would view undisclosed or undeclared ('silent') outcome switching as a breach of commonly accepted standards for good research practice, including in its [Code of Practice for Research](#).

In UKRIO's view, while occurrences should be assessed on a **case-by-case basis**, 'silent' outcome switching is likely to be in breach of the [UKRIO Code's](#) standards for:

- a. Research involving Human Participants, Human Material, or Personal Data - sections 3.6.13 and 3.6.14.
- b. Dissemination of Research Outputs - section 3.14.1 "*...duty to disseminate research outputs in a manner that reports the research and all the findings of the research accurately and without selection that could be misleading*".
- c. Dissemination of Research Outputs (sections 3.14.3 and 3.14.12) if the non-disclosure was a result of external pressures.

To determine whether an occurrence of ‘silent’ outcome switching was the result of error, questionable research practice or misconduct/fraud would require an assessment on a case-by-case basis using a process such as UKRIO’s [Procedure for the Investigation of Misconduct in Research](#). There is no universal definition of research misconduct, however, a common feature of many definitions is that misconduct involves intent to deceive and/or recklessness in the conduct of research. You may find this discussion of the topic by UKRIO useful: [What is research misconduct?](#)

Research misconduct definitions, including the UK’s (see [The Concordat to Support Research Integrity](#), Commitment 4), commonly include *fabrication* and *falsification* (e.g. of data/results). The UK also defines “*failure to meet legal, ethical and professional obligations*” and “*misrepresentation of data, including suppression of relevant results/data or knowingly, recklessly or by gross negligence presenting a flawed interpretation of data*” as research misconduct. Please note that UKRIO has adopted the definition of research misconduct from the UK Concordat.

When an investigation concludes that ‘silent’ outcome switching resulted from an intent to deceive and/or recklessness in the conduct of research, this could be viewed as falling within the categories of research misconduct set out above. However, this can only be assessed on a case-by-case basis, using a properly constituted procedure carried out fairly, thoroughly, and transparently by an appropriate body (e.g. the relevant researcher employer or a national research integrity agency, depending on the jurisdiction in question).

‘Silent’ outcome switching can therefore arise because of honest errors or ‘sloppiness’; questionable research practices or unethical behaviour; or research misconduct. Regardless, it is a breach of good research practice and associated standards. The degree of the breach (fabrication or falsification at the serious end) and the intent are important factors alongside any detriments to knowledge.

Further reading: [Breaches in Research Integrity \(UKRIO, 2023\)](#).



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