Collaborative Discussion 2

Initial Post

Initial Post

by Shashank Phatak - Sunday, 14 September 2025, 6:48 PM

In the case study, Abi, a researcher and statistical programmer, faces ethical dilemmas analysing data for the cereal Whizzz. The data shows potential harm, yet Abi considers alternative correlations to portray the product favourably. This raises questions about the ethics of selectively analysing data to support conflicting conclusions. Ethical principles state that presenting data in a biased way, even without changing values, can be a misuse, undermining objectivity and transparency (Thiese, et al., 2015). Such practices risk misleading stakeholders and violating professional integrity, as statisticians must mitigate biases and communicate limitations honestly (American Statistical Association, 2022).

Abi is ethically obligated to present both positive and negative analyses to promote a balanced view, thereby fostering honesty and avoiding misrepresentation (Resnik, 2020). Failing to do so could enable selective reporting, which distorts evidence and erodes trust (Gelman, 2018). Abi also bears responsibility for how results are used, considering societal impacts, including potential harm from misleading health claims (Shrestha, 2025).

If Abi suspects the manufacturer will cherry-pick positive results, he should consider consulting an ethics committee, disclosing all findings, or withholding participation if coercion is involved. He could also advocate for an independent review to validate analyses. Legally, under frameworks like the Department of Health, Education, and Welfare and National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (2014), suppressing negative data could breach ethical standards, risking sanctions. The World Medical Association Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects, (2013) declaration also mandates full disclosure in medical studies to protect public health.

Biased reporting misleads consumers, potentially compromising their health and eroding trust in research. Professionally, it could harm Abi's reputation. Transparency demonstrates personal growth in ethical decision-making, aligning with principles that enhance research value and promote public welfare (Gelfond *et al.*, 2011). To conclude, Abi must prioritise transparency by presenting both positive and negative findings to uphold research integrity and protect public health. Selective reporting risks legal, social, and professional consequences, emphasising the need for ethical decision-making in statistical analysis.

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Peer Response to Md Chowdhury

Peer Response

by Shashank Phatak - Thursday, 18 September 2025, 7:53 PM

Your analysis of Abi's dilemma effectively highlights the ethical risks of selective analysis, equating it to data manipulation by omission, which aligns with Resnik's (2024) emphasis on research integrity. Referencing the ACM (2018) and BCS (2021) codes strengthens your argument that presenting only favourable results violates professional standards of honesty and public interest. Your point about potential breaches of the UK Consumer Protection from Unfair Trading Regulations (2008) is pertinent, as misleading nutritional claims could lead to legal sanctions and harm public trust in nutritional science.

I agree to Shraddha's point as well and state that Abi should include caveats in his report to mitigate misuse, but could he also consider whistleblowing to bodies like the UK's Advertising Standards Authority if the manufacturer suppresses harmful findings? This proactive step could prevent complicity in unethical practices while protecting consumers from health risks. Additionally, documenting all communications with the manufacturer could safeguard Abi professionally, as transparency is critical in ethical research (Gelfond et al., 2011). Socially, selective reporting could erode confidence in scientific institutions, thereby impacting the credibility of Abi's institute. Your suggestion to escalate to an ethics board is practical, but engaging an independent auditor might further ensure impartiality, aligning with open science principles (Munafò et al., 2017). In conclusion, your response demonstrates a firm grasp of ethical complexities, however, exploring international frameworks, such as the EU's food safety regulations, could broaden the legal perspective.

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Peer Response to Kieron Hamilton

Peer Response

by Shashank Phatak - Thursday, 18 September 2025, 8:40 PM

Your analysis brilliantly connects Abi's dilemma to p-hacking and statistical deception, a concept which was new to me, referencing Simmons et al. (2011) and Huff (1954) to highlight the dangers of selective reporting. Your emphasis on the ASA's (2022) and RSS's ethical guidelines underscores Abi's obligation to present both positive and negative findings objectively. The suggestion of a comprehensive report with disclaimers is practical, as it ensures transparency while mitigating potential misuse.

Could Abi also engage with the manufacturer early to set clear ethical boundaries, thereby reducing the risk of selective reporting? This aligns with Wasserstein and Lazar's (2016) call for sound scientific reasoning over manipulated outcomes. Legally, misleading claims could attract scrutiny from the UK's Trading Standards or the US's Federal Trade Commission, with potential fines or reputational damage for both the manufacturer and Abi if they are found to be complicit (FTC, 2023). Socially, partial disclosure risks consumer harm and erodes trust in science, as you noted rightly. Professionally, Abi's failure to uphold RSS standards could lead to censure or loss of credibility. Consulting an ethics committee is a strong suggestion, but open data sharing, as advocated by Munafò et al. (2017), could further deter misuse and enhance accountability. Your response effectively balances ethical, legal, and social impacts, though exploring international consumer laws could add depth.

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Peer Response to Shraddha Gore

Peer Response

by Shashank Phatak - Thursday, 18 September 2025, 8:17 PM

Your discussion of Abi's ethical obligations is robust, particularly your integration of the ASA (2022) and European Food Safety Authority (2014) guidelines, which emphasise transparency and scientific rigour in statistical and food safety assessments. Your point that Abi must present both confirmatory and exploratory analyses with explicit contextualization is critical to avoid misinterpretation, aligning with the ACM's (2018) call for honesty and harm prevention. The suggestion of independent peer review is practical, as it enhances credibility and reproducibility.

Could Abi further strengthen his position by publishing his methodology openly, as advocated by open science frameworks (Munafò et al., 2017)? This could discourage the manufacturer from cherry-picking results and align with EFSA's transparency requirements, potentially avoiding sanctions for misleading claims under EU regulations. Socially, suppressing harmful findings risks compromising public health and trust in nutritional science, as seen in past controversies surrounding cereal marketing. Legally, in the US, the FTC could penalise deceptive health claims, complementing EU frameworks (FTC, 2023). Professionally, Abi's failure to disclose fully could damage his reputation, as partial reporting violates ASA's ethical standards. Your emphasis on societal impacts is insightful, although I believe that exploring whistleblowing as an escalation option could further protect Abi and the public if the manufacturer acts unethically.

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Summary Post

Summary Post

by Shashank Phatak - Monday, 29 September 2025, 9:10 PM

The ethical dilemma faced by Abi regarding the nutritional analysis of Whizzz cereal highlights the complex challenges inherent in statistical programming. In my initial discussion, I emphasised that selective data presentation compromises objectivity and transparency, jeopardising stakeholder trust and violating professional standards (Thiese et al., 2015; American Statistical Association, 2022). Abi must be transparent by disclosing both positive and negative findings, in accordance with ethical guidelines outlined in the Declaration of Helsinki (2013) and the Department of Health, Education, and Welfare and National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (2014), which highlight the importance of transparency in safeguarding public health.

I suggested that Abi consult an ethics committee, seek an independent review, or even consider withdrawing from participation to avoid coercion approaches that exemplify ethical decision-making (Gelfond et al., 2011). Contributions from peers have enriched this discussion. Julius Cloos emphasised the importance of transparency and notification to regulatory bodies. At the same time, Abdulhakim Bashir highlighted the biases present in industry-funded studies (Lesser et al., 2007) and the critical need for institutional integrity (Singapore Statement, 2010). Md Chowdhury highlighted the practical difficulties in resisting commercial pressures and the necessity for more explicit exploratory guidance. Furthermore, Yousif Ali Karam Yousif Almaazmi raised concerns about potential harm to consumers, emphasising the urgent need for independent validation (Craft & Vos, 2021).

This discourse reinforces Abi's ethical obligation to uphold transparency, adhere to legal frameworks such as the UK's Consumer Protection Regulations, and protect public health through measures like pre-registration, open data sharing, and regulatory escalation.

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