


NCA Paper Development Workshop 2023

Five common pitfalls when publishing an NCA paper

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Pitfall 1

- **No theoretical justification of the (tested or explored) necessity hypothesis**
- Theoretical justification is one of the three critical factors for deciding about necessity (others are effect size and p value)
 - Justification with findings from regression studies is not enough (only average relation)
 - Thought experiment: why in cases with the outcome, the (maximum) outcome disappears when the condition disappears/is reduced?
- See online book: Section 2.2 (and 3.3.2)

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Pitfall 2

- **Not showing the scatter plots of ALL relations that have been tested for necessity**
- Goal of showing scatter plot: allows visual inspection:
 - Selection ceiling line
 - Potential outliers
 - Density of cases below the ceiling
- See online book: Section 4.1

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Pitfall 3

- **Bottleneck table is just reported but not interpreted**
- Bottleneck table allows evaluation of necessity in degree:
 - Only include variable that pass the three criteria of necessity in kind (theoretical justification, effect size, p value)
 - The standard table with percentage range is not very informative; tables with actual values for Y and percentiles for X are most informative.
- See online book: Section 4.3

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Pitfall 4

- **Not doing a robustness check**
- Goal is to ensure that conclusions are robust against choices of the researcher in particular regarding:
 - Selected ceiling line (justification often missing!)
 - Outliers (NCA software: `nca_outliers`)
- See online book: Section 4.6

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Pitfall 5

- **NCA results not reported according to published basic guidelines**
- Goal is to standardize and ensure quality of reporting the basics of an NCA study:
 - Dul, J., Hauff, S., & Bouncken, R. B. (2023). Necessary condition analysis (NCA): Review of research topics and guidelines for good practice. *Review of Managerial Science*, 17, 683–714.
- See also online book: Section 1.7

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