

Review of: "Strategies for Reducing Inherent Cognitive Biases in Educational Classrooms"

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The paper focuses on the importance of cognitive biases in educational settings. Being a teacher educator and researcher with an interest and background in social/cognitive psychology I do share the sentiment that cognitive biases should be addressed more systematically and thoroughly in the field of education, especially in high stakes contexts, such as university teacher education. However, I am a bit skeptical whether this paper - in its current form - provides a solid contribution to a more structured understanding of how to address the phenomenon in question adequately in educational contexts. There are a number of reasons for my reservations:

1. The introduction and literature review sections of the paper do not do justice to the complex nature of cognitive bias. I am missing a comparison of seminal or common definitions of cognitive bias that would delineate various perspectives and highlight different dimensions of the construct (e.g. is it systematic selectivity in information processing and/or attention to selected information? is it deviation from rationality? is it a specific pattern of responses to judgment and decision problems? is it a systematic cognitive error in taking a shortcut? is it a tendency to preferentially resolve ambiguity in a specific way?). What this part of the paper also lacks is a thorough discussion of the relationship between cognitive bias and other relevant concepts, such as prejudice (following e.g., Allport), heuristics, or implicit bias. The distinction between cultural and personal bias is also a little too superficial.
2. There are a lot of statements within the introduction and literature review sections that urgently need sources. Many of these statements are very strong formulations that are not necessarily correct or precise, e.g. „Cognitive biases are genetic, hardwired, pre-programmed, and inherent in every individual.“ To my knowledge, it would only be possible to claim that because some Type 1 processes are likely hardwired, biases that result from such Type 1 adaptations could be considered „hardwired“. But this does not seem to be true for all cognitive biases: some of them are related to type 2 processing and many biases are thought to have multiple determinants, some of which are not necessarily pre-programmed or genetic per se. Apart from that: There are some publications that suggest that that a strict distinction between System I and II may not be optimal, e.g. because relational knowledge can mediate fast and unconscious phenomena, pointing to the idea (e.g. De Houwer 2019). All of these nuances and various accounts that support them would need to be discussed more explicitly in the paper, and I cannot stress this enough - with proper sources.
3. The author points to the relative scarcity of publications devoted to cognitive biases in the educational context. There are some publications that focus on cognitive bias, e.g., in teachers' perception and attunement to bullies and victims (e.g. Marucci et al. 2020) or cognitive misconceptions among students (e.g. Pobiner et al. 2019), or on the role of CBM in reducing children's fears (Cox et al. 2015). They would need to be incorporated into the discussion as well.

4. The rationale of the paper partially rests on the assumption that we cannot bypass System 1, i.e. change or erase cognitive bias. This is not necessarily the case: studies into cognitive bias modification document attempts to directly change the cognitive processes that give rise to biased attention and information interpretation, i.e., they do not attempt to change the response to e.g. anxiogenic thoughts in depressive patients; instead they change cognitive processes that give rise to such thoughts e.g. through attention probe tasks (see MacLeod & Mathews, 2020). How does this fit in with debiasing? In addition, to what extent has training in cognitive debiasing been proven to be effective?
5. The suggested strategies at the end of the paper are somewhat vague and focus on a seemingly random selection of possible cognitive biases. It is a good first step and an interesting analogy to the paper by Croskerry et al. (2013) but at this point I do not see yet how I could easily apply these suggestions in my work as a teacher educator without any further specification or concrete procedures. Looking forward to more concrete suggestions here.