Hidden obstacles in education for students from low socioeconomic backgrounds

Citation for published version (APA):

Document status and date:
Published: 15/11/2019

DOI:
10.26481/dis.20191115mm

Document Version:
Publisher's PDF, also known as Version of record

Please check the document version of this publication:
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low-and high-SES backgrounds including test materials used, interaction with personality traits, and the encountered social and academic environment. Together, the findings imply that focusing on mismatches that may occur when low-SES students attend schools or institutions for higher education, may lead to more insight in the negative relation between low socioeconomic background and academic performance. These insights may have implications for policy aimed at reducing the academic performance gap between low- and high-SES students. Moreover, with regard to research practices, the experiences with preregistration lead to policy recommendations as well. The main policy implications are discussed in the next section.

6.2 Implications, Knowledge Valorisation, and Recommendations

We found indications for hidden barriers in math-tests for low-SES students. Applying context such as money or social interaction seems to work against low-SES students' performance. When future research would replicate these findings and show that applying this context impedes low-SES students' performance, these barriers should be addressed with policy interventions. It may be recommendable for test developers to pay attention to the risk of biasing effects from context in math tests. Omitting context such as money and social interaction from standardized math-tests may lead to a reduction of the SES-gap in math performance.

In addition, we found indications that when low-SES students display high levels of Openness, this may positively influence teachers' evaluations about their abilities, compensating for their background disadvantage. Policy implications of this study are twofold. First, when this relationship turns out to be causal, strengthening beneficial personality traits during childhood, in particular Openness, may help to elevate teachers' expectations toward low-SES students, perhaps reducing the gap in educational achievement between low- and high-SES students. Second, although speculative, these results may imply that Openness especially influences teachers' evaluations, rather than students' objective performance. Therefore, it may be recommendable to investigate more thoroughly how both SES and personality play a role in the formation of teachers' expectations.

This dissertation also suggests barriers for low-SES students in higher education. The finding that students from low-SES backgrounds who enter highly selective institutions in higher education experience a mismatch with the social environment, rather than with academic matters, may have implications for policy in higher education institutions. Policy interventions aimed at preventing dropout and promoting equal opportunities for low-SES students in highly selective institutions, could focus on these experiences of mismatch with the social environment. It is recommendable to consider whether highly selective institutions can do more to reduce these barriers for low-SES students. In addition, whereas undermatching is generally considered as undesirable because of the long-term consequences for job status and salary, this thesis shows both beneficial and unbene
consequences of undermatching during students’ time in higher education. Undermatching may contribute to the social integration of low-SES students in higher education during their first year in higher education. A better social integration may in turn reduce the risk on college dropout in their early years in college. However, whereas undermatching seems to promote well-being with the social environment during their first year in higher education, on the longer term, undermatched students become less satisfied with both the academic and social environment than matched students. Therefore, counselors that advise and help students during the transition from secondary to tertiary education should be aware that undermatching might not help low-SES students on the longer term. Therefore, during the transition into higher education, a careful tradeoff has to be made between the advantages of undermatching (better integration during their first year in college and reduced risk of drop-out in the early phase of higher education) and the advantages of matching (more satisfaction and better academic match on the longer term).

6.3 Future Research

In order to promote fair testing and equal opportunities for students from all SES-backgrounds, the causal relation between context in math tests and math performance has to be investigated thoroughly. It is of importance to investigate this relation with an experimental design. In addition, more research is needed to explore the underlying mechanisms, such as stereotype threat (e.g., Schmader, Johns, & Forbes, 2008), and narrowed attention and cognitive control (Mullainathan & Sharif, 2013) leading to this bias.

Whereas the importance of personality in predicting educational outcomes is beyond discussion (Borghans, Duckworth, Heckman, & Ter Weel, 2008; Heckman & Kautz, 2012; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007), the malleability of personality traits is subject to debate (Roberts et al., 2017). In order to take advantage of the compensating role of Openness for background disadvantage, more insight is needed in the possibility to design interventions that enhance Openness, especially among low-SES students. In addition, it is of importance to investigate further whether students who display high levels of Openness are indeed evaluated as having higher academic potential by their teachers, especially when they have a low-SES background. Moreover, it is important to examine whether these evaluations are valid. In addition, more research is needed to investigate whether all facets of Openness, such as aesthetic sensitivity, or preference for novelty, are equally important in explaining the findings.

This thesis suggests that undermatching leads to more satisfaction during the first year in college, and, at the same time, to less satisfaction toward the later years in college. To investigate the long-term consequences of undermatching, future research should examine experiences after students’ transition into the labour market. In addition, it is important to pay attention to other outcome variables than satisfaction and educational attainment as well, such as satisfaction with social relations with friends and family, and problem behavior such as delinquency and addiction. In particular, research on undermatching