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# Choice narratives of “unexpected” physics students

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Higher education physics has long been a field with a disproportionately skewed representation in terms of gender, class, and ethnicity. Responding to this challenge, this study explores the trajectories into higher education physics, with a particular focus on “unexpected” physics students. Drawing on semi-structured timeline-guided interviews with 20 students enrolled in university physics programmes across Sweden, we analyze the students’ accounts of their trajectories into physics as “choice narratives” (Holmegaard, 2015) and as “narratives of location” (Anthias, 2005). We ask which choice narratives are used, and how these become (im)possible and legitimate in relation to narratives of location and wider societal discourses.

In line with earlier research, many of our interviewees describe a fascination for science and for understanding the world, often described as established already in childhood. When growing up in a supporting academically oriented family, cultivating an interest in physics often becomes an obvious and easy path, and this is the case for many of the women in our sample growing up in middle-class families. For others, being given an opportunity to express a passion for science despite family and society not expecting it is an important transformative experience.

Interviewees describe wanting to be challenged and recognized for their performance. Here, physics is seen as a difficult subject, bestowing prestige when mastered. Achieving this kind of recognition can be an expected attainment in middle-class families and striving migrant families, but also a way of proving oneself against all odds for those from a non-academic background.

The choice of physics is also described by some as a possibility to contribute to one’s community. In earlier research, this has not been highlighted as a common motivation for choosing physics, but we find that this is narrated in relation to marginalized class and ethnic positions, and still uncommon among the women with middle-class background. However, some of the women frame the choice of studying physics as a contribution simply because it breaks expectations and may provide a role model for other underrepresented students.

In contrast to the traditional picture of physics as a “pure”, “smart”, and “prestigious” field of study pursued by students interested in understanding how the world works, our results show that alternate ways of approaching physics studies are possible. However, these approaches are both limited and possibilized by the gendered, classed, and racialized locations of prospective students. An opportunity for reconceiving the role of physics for all students, both in and outside school, is given by considering these alternative approaches to the subject.

Anthias, F. (2005). Social Stratification and Social Inequality: Models of Intersectionality and Identity. In F. Devine, M. Savage, J. Scott, & R. Crompton (Eds.), *Rethinking class: culture, identities and lifestyles* (pp. 24–45). Palgrave Macmillan.

Holmegaard, H. T. (2015). Performing a choice-narrative: A qualitative study of the patterns in STEM students’ higher education choices. *International Journal of Science Education*, 37(9), 1454–1477. <https://doi.org/10/gctkn7>

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