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Project Description - Economic Policy Research Network

Dear Board of the Economic Policy Research Network (EPRN),

With this application, I would like to express my great interest and enthusiasm to conduct my research project *Misguided Job Search* with an EPRN research grant. I am a fourth-year PhD Fellow in Economics at the University of Copenhagen, and work at the intersection between behavioral and labor economics. My PhD supervisors Prof. Steffen Altmann & Prof. Robert Mahlstedt will provide guidance for the data collection and the empirical design, and will supervise my work on the project described below.

1 Motivation

Why do some workers become long-term unemployed and how can governmental policies assist job seekers in finding re-employment? These are some of the most fundamental questions in our society and a pressing issue for researchers and policymakers. We know that remaining unemployed for a long time can have substantial personal costs, such as financial distress (Kroft *et al.*, 2016), mental health issues (Paul and Moser, 2009) and social stigma (Krug *et al.*, 2019). Moreover, long-term unemployment is correlated with a decrease in job-finding probabilities, such that it becomes more difficult to be considered by employers (Kroft *et al.*, 2013; Krueger *et al.*, 2014). Furthermore, being unemployed is characterized by constantly receiving rejections from employers, as only about 2-4% of job seekers receive a job offer in a given week (Krueger *et al.*, 2011). This makes job search a highly mentally challenging situation to be in.

From behavioral economics, we know that when faced with repeated rejections, people tend to search for methods to protect their self-image (Bénabou and Tirole, 2005; Köszegi, 2006). There is extensive empirical evidence that people tend to be reluctant to internalize new information that hurts their self-image (Benjamin, 2019). People tend to forget (Zimmermann, 2020), ignore (Rabin

and Schrag, 1999), avoid (Golman *et al.*, 2017), reinterpret (Drobner, 2022) or misattribute negative feedback (Coutts *et al.*, 2020), while they are inclined to react to positive feedback. A specific theory that explains how economic agents handle disappointing feedback (such as rejections from employers) is provided by the *misguided learning* framework by Heidhues *et al.* (2018). They argue that economic agents are subject to a self-serving attribution bias, such that overconfident agents are reluctant to attribute negative feedback to their personal abilities. Consequently, overconfident agents will become pessimistic about the labor market in light of negative feedback in order to protect their self-image.

In this project, I investigate the implications of misguided learning in the job search process. To do so, I have developed a theoretical model outlining that misguided learning implies that overconfident job seekers will anticipate many job offers, but will be disappointed by the realized rejection. They will rationalize these rejections by convincing themselves that the state of the labor market is disadvantageous to them, which decreases their perceived marginal returns to search. Consequently, job seekers will get discouraged from searching over time and decrease their search effort levels, which is a phenomenon observed in empirical data (Faberman and Kudlyak, 2019; Lalive *et al.*, 2023). While the theoretical analysis suggests that misguided learning could be an important driver of discouragement and long-term unemployment, currently available empirical data does not allow for a comprehensive assessment of misguided learning in the context of job search. Therefore, I ask the empirical research question: **Does overconfidence in personal abilities and an attribution of disappointing feedback to external labor market conditions, has consequences for discouragement by job seekers and long-term unemployment?**

So far, I have analyzed theoretically how overconfidence and misguided learning influences misperceptions about the labor market and discouragement by job seekers. The EPRN grant would allow me to test the hypotheses empirically, and provide evidence-based policy recommendations to reduce discouragement and prevent long-term unemployment.

2 Relevance for Policy Design

Conclusive empirical evidence about the importance of self-image concerns and misguided belief updating in the context is fundamentally important for the effective design of Danish job search assistance policies. While traditional explanations of limited engagement with the labor market, like low perceived returns to effort (Adams-Prassl *et al.*, 2023) or strategic timing of search behavior (Faberman and Kudlyak, 2019), suggest no clear role for policies, self-image concerns can be managed by effective job search assistance policies. Therefore, Cooper and Kuhn (2020) argue: *“Because the literature on the role of self-image in job search is so sparse, it remains a productive direction for future research to explore. The existence and magnitude of biased updating and information avoidance in the field may inform policymakers about how to manage self-image concerns among the unemployed in practice with effective job assistance programs.”*

Effective information provision policies, which has been a major focus of recent research and policymaking (e.g., Belot *et al.*, 2019; Altmann *et al.*, 2022), will have to be designed differently

when considering the relevance of self-image concerns for discouragement. While it is typically assumed that information provision will benefit job seekers, *misguided learning* suggests that information provision policies should directly encourage job seekers by reducing their pessimism about the external state of the labor market. Information provision about personal abilities will be ineffective at best or discouraging at worst, as job seekers will misattribute disappointing feedback. During my PhD, I have formed a close collaboration with the *Danish Agency for Labour Market and Recruitment (STAR)*, which enhances the academic quality of this project and allows me to support Danish policymakers in effectively designing policies to reduce long-term unemployment with empirical evidence. Specifically, as part of this project, I will use register and survey data, and combine them with high-frequency search data from STAR’s central job search platform (*jobnet.dk*).

3 Methodology

The empirical analysis in this project will be divided into three parts, following the theoretical analysis outlined above. First, I will test whether job seekers tend to be overconfident in their abilities. Specifically, I test for an overplacement and overestimation bias, as proposed by Moore and Schatz (2017). This investigates the key premise of the literature on overconfidence and motivated beliefs in a job search environment (Moore and Healy, 2008; Eil and Rao, 2011; Bénabou and Tirole, 2016; Heidhues *et al.*, 2018) and introduces the relevance of ego-relevant beliefs to the job search process. Second, I investigate the implications of misguided learning in a job search environment for the formation of beliefs. Specifically, I will test whether miscalibrated prior beliefs about abilities are associated with (i) pessimistic point beliefs about the state of the labor market, (ii) downwards updating of perceptions about the job search process and (iii) a reluctance to update ego-relevant beliefs admist feedback. Third, I will investigate the association between overconfidence and discouragement in terms of search effort using comprehensive Danish job search data.

The data collection for this project will require (i) a feasible measure of overconfidence, (ii) a repeated survey among Danish job seekers eliciting perceptions about their own abilities and the external labor market conditions over the unemployment spell, and (iii) linking survey data sources to Danish register and job search data. The feasibility of this approach is ensured due to (i) my collaboration with a Danish company designing recruitment test for the labor market, which will be used to design an evidence-based measure of overconfidence among job seekers, (ii) the survey infrastructure used in a previous project (Altmann *et al.*, 2024), which allows me to conduct large-scale surveys among Danish job seekers and (iii) my close cooperation with Danmarks Statistik (DST) and STAR to ensure a smooth linkage between data sources.

4 Timeline & Publication

My close collaboration with STAR and the survey infrastructure used in a previous project (Altmann *et al.*, 2024) allow me to start the data collection procedure as soon as possible. Furthermore, the empirical design has received ethical approval by the Ethics Committee at Department of Economics, University of Copenhagen. Due to these factors, I expect the following timeline of the empirical part of the project: (i) start the data collection process in January 2025, (ii) collect data until March 2025, and (iii) analyze the empirical results between April and May 2025. I expect to have a working paper ready for submission at the end of 2025. The novelty of the research question and the unique data environment allow me to aim at publishing in general interest journals, such as the *Quarterly Journal of Economics*, the *Review of Economic Studies* or the *American Economic Review*.

With me, the Economic Policy Research Network (EPRN) would support a highly ambitious scholar, who strives to conduct research to have a societal impact and inform policies. My deep interest in pressing questions within labor economics, makes me certain that I would be a suitable candidate for support from the Economic Policy Research Network (EPRN).

I thank you for considering my application and I look forward to hearing from you soon.

Best regards,

Malte Jacob Rattenborg

PhD Fellow

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