

## **Jury report**

### **Jan Brouwer Thesis Award 2023 – Economic Sciences**

#### **Aukje Nieuwenhuis MSc, University of Groningen**

*Gender-stereotypical labor market behavior across generations:*

*Evidence from conditional second moments*

The number of theses nominated this year was 23, a steady number – even a slight uptake from recent years, which pleases the jury and the Royal Holland Society of Sciences and Humanities greatly. We are glad that deans, thesis supervisors and students increasingly find their way to the important Jan Brouwer thesis award.

The annual award intends to stimulate multidisciplinary society-oriented research that provides insight into concrete social problems and has the potential to contribute to solving them. That is exactly what this year's winner in the Economic Sciences does superbly – and with advanced econometric techniques.

The theses submitted came from Economics Faculties from all over the Netherlands – another positive development. From Maastricht to Groningen, Amsterdam to Nijmegen. They were all very good, but a substantial part of the submissions was of truly excellent quality. The jury considered several theses absolutely worthy of the Jan Brouwer prize.

Yet one submission was the very best one, by some distance from the rest. The jury was unanimous in this finding. That thesis is the work of Aukje Nieuwenhuis, written at the University of Groningen – under the supervision of dr. Postekska and Professor Alessie.

The thesis is titled 'Gender-stereotypical labor market behavior across generations: Evidence from conditional second moments'. It considers the gender gap that women tend to earn less, work less hours and are less in leadership positions. That gap turns out stubbornly persistent – despite decades of emancipation and policy attempts to try to close it. How come? One possible cause is "sticky gender norms" – beliefs and expectations about what are supposedly "suitable" jobs for women, and what for men, that are passed on from one generation to the next – by stereotypical example, as well as more subliminally.

Aukje Nieuwenhuis looks in her masterfully executed thesis at gender-stereotypical attitudes of parents – as derived from their explicit own job choices, and their expressions of stereotypical views, which are, of course, intertwined – and how those affect the employment choices of their children; in stereotypical jobs or not. She finds strong results for daughters – not so clear is it for sons.

Now, the persistent gender gap puzzle is a socially highly relevant topic. Yet Aukje does not necessarily do herself a particularly great service in attracting the wide audience that the findings in her thesis deserve with her abstract – which reads:

"Two explanations for the observed inter-generational correlation are selection and causality. This thesis handles the endogeneity of parental gender-stereotypical behavior without

specifying instrumental variables. Relying on identification through an assumption on the conditional second moments of the error, I estimate the causal and selection effect using data from Germany. My results suggest that selection drives the observed positive correlation in gender-stereotypical behavior of parents and daughters, while causality operates in the other direction.”

While this must sound a little dry and technical to the untrained ear, the findings are in fact very cool and policy relevant. Because the big find in this thesis essentially is: daughters of parents who hold more gender-stereotypical occupations say that they would like to have a non-stereotypical career. That is the adverse causality part. It means, Nieuwenhuis concludes, that the fact that women nevertheless end up more in stereotypical women jobs is entirely driven by selection.

That selection mechanism is that parents who behave less stereotypically would have children with less stereotypical beliefs too, regardless of their own labour market choices. So even if parents have atypical jobs, when their overall thinking and expression around their children is gender-stereotypical, their daughters end up in typical jobs more often. So in short: it is norms not jobs that increase gender-equality in the labour market.

The important policy advise therefore is to change the norms that parents hold, and not so much the jobs they hold. Existing policies have aimed to get women into atypical jobs. But that does not seem to bring on the radical social change needed for labour market gender-equality. The results of Aukje Nieuwenhuis highlight the need for policies that affect gender norms if we want to ensure intergenerational spill overs.

Now one can image these two effects – that are opposing, as found – are hard to disentangle. For one thing, the sample of parents holding a woke job but nevertheless boomer beliefs must be pretty small. This is where Aukje’s contribution to sophisticated econometrics comes in. She uses state-of-the-art statistical techniques to establish the surprising negative causal link between gender-stereotypical career choices of parents and daughters – leading to the conclusion that the positive correlation in the data is due to an overriding selection effect. Those include exploiting heteroskedasticity in the data and Klein and Vella's (2010) constant correlation coefficient estimator. These methods require substantial programming skills as well as a deep understanding of the sociological and psychological mechanisms behind intergenerational transfers. In addition, extensive robustness checks are offered, using yet again different advanced test methods.

All in all, Aukje Nieuwenhuis developed “a methodological proficiency”, as Professor Alessie calls it in his recommendation letter, that goes far beyond what we normally see in master theses.

In addition, the thesis is very well written, with only careful concluding – after a clear discussion of limitations of the approach, which is a sign of academic maturity. The thesis is a pleasure to read and very accessible. The members of the jury look forward to learning more from Aukje, now that she is pursuing a PhD at the University of Groningen too, with the same two excellent supervisors.

A highly topical and socially-relevant subject, so masterfully studied: Aukje Nieuwenhuis is the much deserved winner of the 2023 Jan Brouwer thesis award in the Economic Sciences.

Congratulations.

*Prof. dr. E. (Els) Gijsbrechts, hoogleraar departement marketing TISEM Tilburg University*

*Prof. dr. C.G. (Kees) Koedijk, hoogleraar Finance Universiteit Utrecht*

*Prof. dr. M. P. (Maarten Pieter) Schinkel, hoogleraar mededingingseconomie en regulering Universiteit van Amsterdam*

The meeting of the jury took place on December 9th, 2022, was chaired by KHMW-director Mr. M.E. (Marbeth) Bierman-Beukema toe Water and was also attended by Prof. dr. R.B. (Rudy) Andeweg, Secretary of Humanities KHMW.