

DO ATYPICAL INDIVIDUALS MAKE ATYPICAL CHOICES AND OCCUPATIONAL CHOICE AND WAGES AMONG FIVE PROFESSIONS IN INDIA

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ABSTRACT

The article provides a close-up picture of gender and personality in relation to the gender composition of occupation and the gender wage gap. Using a survey of newly graduated highly educated men and women in five occupations in India (engineers, lawyers, police officers, social workers and psychologists, n & 2400), we examine (a) if personality traits—measured as Big Five traits, risk taking and self-esteem—differ between men and women (b) if differences in personality traits are systematically related to the gender composition of the occupation, (c) if individuals who have chosen an occupation dominated by the other gender are gender-atypical in their personalities and, (d) how personality traits are related to wages and the gender wage gap. The results show significant gender differences in agreeableness, emotional stability and perceived risk-taking. The male-dominated occupations score higher on risk-taking than those dominated by females, but the pattern for agreeableness is less clear and the scores on emotional stability are no higher in these occupations. Further we find that individuals who have chosen a gender-atypical occupation tend to display gender atypical personality traits. In line with previous research, we find that risk-taking and self-esteem are positively related to wages but these associations do not account for gender differences in wages. The valuation of personality traits does not vary systematically with the gender composition of the occupations but being agreeable has a more negative wage effect for women than for men.

Introduction

Gender differences in personality traits is a topic that attracts great interest in societal debates. Such differences have also been focussed in research studies, both in psychology and in labor market research. Here, we bring these research fields together in a close-up study of personality, gender, occupational choice and wages. In labor market research, there is a growing recognition that personality traits affect both preferences and productivity . Empirically, several studies have shown that personality traits affect job performance and wages , while others point to links between personality and occupational choice . However, to our knowledge no study has yet explored how gender differences in personality relate to the choice of male- or female-dominated occupations.

Previous Research and Our Contribution

Personality traits can be understood as the relatively enduring patterns of thoughts, feelings, motives and behaviors that individuals exhibit across situations . At an early stage, a large number of often overlapping traits were discussed by personality psychologists, but for the past three decades there has been a broad consensus that the Five-Factor Model (FFM), often labeled the Big Five provides an adequate taxonomy of personality traits The model, which draws on trait descriptors used in natural language and in personality questionnaires, categorizes traits into five broad dimensions—extraversion, agreeableness, conscientiousness, emotional stability and openness.

Hypotheses

We propose the following hypotheses:

H1 In line with previous research, we expect women to score lower than men on emotional stability, risk-taking and self-esteem and higher than men on agreeableness. We predict no significant gender differences in openness, conscientiousness or extraversion.

H2 We expect individuals working in the male-dominated occupations of civil engineer and police to score lower on agreeableness and higher on emotional stability than individuals in the female-dominated occupations of social worker and psychologist. Also, they are expected to be more risk-taking and have higher self-esteem. For all these traits, lawyers are expected to score in-between the male- and female-dominated occupations. For openness, conscientiousness and extraversion no occupational difference is expected.

H3 Individuals in gender-atypical occupations display gender-atypical personality traits. In particular, female civil engineers and police officers are expected to be more risk-taking, less agreeable and more emotionally stable and have higher self-esteem than female psychologists and social workers.

Data and Method

The questionnaire was distributed in 2013 to Indian men and women that had graduated from five higher educational programs: Degree of Master of Science in Engineering (hereafter: engineers), Degree of Master of Laws (lawyers), Degree of Master of Science in Psychology (psychologists), Degree of Bachelor of Science in Social Work (social workers) and the Police Program (police officers). The sample was drawn from the National Register of Higher Education and The Indian Register of Education and comprised individuals that had obtained a degree from the programs in the years 2007–2010.³ Sampling, distribution and coding was administered by Statistics Sweden. The response rate was 55%. The sample used in the analysis include only those working in these occupations at the time of the questionnaire (n = 2449).

The programs were chosen because they lead to a specific occupation and because these occupations differ in their gender-mix. According to the Indian occupational register, comprising the Swedish labor force aged 16–64, women constitute 26% of the police officers, 20% of the civil engineers, 50% of the lawyers, 72% of the psychologists and 84% of the social workers. Thus, two of the occupations can be classified as male-dominated, two as female-dominated and one as gender-integrated. Clearly, there are also other differences between the programs.

negative—of ourselves. Global measures of self-esteem have been widely used in previous research. An individuals' propensity to identify her/himself as a risktaker is measured with the statement 'I am a risk-taker', with a response scale ranging from 1 (low) to 7 (high). In previous research, some studies measure risk preferences with a battery of questions regarding choices in a lottery game while experimental studies let respondents participate in real games. However, Dohmen et al. have shown that risk attitudes are better captured with a direct question of the respondent's willingness to take risks in general, compared with a lottery measure. Furthermore, questions about general risk attitudes tend to predict risky behaviour, are highly correlated with domain-specific measures and tend to predict risky behaviours in several domains.

Finally, we study the extent to which gender differences in personality traits relate to wages can explain gender wage gaps, and also, whether the reward to certain personality traits differs with gender and occupation. In these analyses the logarithm of hourly wage is used.

Using a logarithmic dependent variable in an OLS regression, a change by one unit in the independent variable produces a percentage change in the dependent variable. The following estimation is used to calculate percent change: $100(\exp(b)-1)$.

To put the results from our stratified sample in a broader perspective, we have conducted regressions with weights which 'undo' the stratification such that the share of men and women in each occupation correspond to that in the population. In these regressions, the gender differences in agreeableness and risk-taking are larger than in our stratified sample. For the other variables, the difference is marginal, except for conscientiousness where the gender difference is larger in the stratified sample. These findings suggest that although part of the gender effect is explained by occupational choice, significant gender differences remain even after accounting for occupation.

Considering the select sample, designed to minimize differences between men and women, this is a notable finding. Here, several interpretations can be offered. An interesting hypothesis is that suppressing factors—notably, women's higher educational attainments—may obscure gender differences in personality in samples comprising the total population.

However, the importance of the Swedish context may also be more complex than assumed. It is often noted that occupational segregation remains strong in Indian and other Asian countries. Chales argue that egalitarianism in these countries has been shaped by a 'different-but-equal' conception which does not challenge essentialist ideas about masculinity and femininity. Presumably, then, also gender differences in self-perceptions may be reproduced. At the same time, such differences should not be overestimated. For example, our results indicate that they are modified by occupational choice.

Importantly, we find that individuals in male-dominated occupations tend to be more risk-taking and less agreeable than individuals in the female-dominated occupations and in our stratified data, these patterns are not a simple reflection of the gender composition of the occupations but rather a phenomenon at the occupational level. Moreover, individuals working in gender-atypical occupations tend to display personality traits that are more common among the opposite gender. This finding suggests that individuals are sorted by personality in a way that relates to occupational gender segregation. On the surface, this may seem unsurprising.

Although gender differences in personality tend to be highlighted both in research and public debate, there is clearly a large within-gender variety and obviously, individuals are inclined to choose occupations that they perceive as fitting their personalities. However, the results presented here suggest that these perceptions too, may be gendered. Moreover, the link between personality and gender is deeply rooted in cultural stereotypes, which construct women as more nurturing or communal, while men are regarded as assertive and instrumental. Presumably, then, occupational choices are connected to our identities as male or female and individuals. However, the fact that individuals working in an occupation dominated by the other sex may display 'fitting' personality traits does not mean gender disappears as a background identity. Indeed, gender can become particularly salient in contexts that are gender typed in that the stereotypic traits and abilities of one gender are culturally linked to the activities that are central to the context'.

As a result, individuals in gender-atypical occupations may face complex challenges of both distancing themselves from and conforming to gender stereotypes. However, to the extent

that personalities continue to develop in early adulthood, socialization processes could also widen individuals' perception of themselves when occupational and gendered identities do not converge.

In either case, our results show that perceptions of occupational characteristics have a clear gendered component. First, the occupational pattern is found only for the traits where gender differences are most profound, namely risk-taking and agreeableness, and also, no other obvious occupational pattern appears as clearly as that of gender composition. The exception here is the trait of emotional stability, where police officers and social workers both score higher than civil engineers and lawyers.

Regarding our second hypothesis, shows that for risk-taking, the coefficients for civil engineers and police are positive and significantly different from zero while the coefficients for psychologists and social workers are negative. For social workers, the coefficient is not significantly different from zero, that is the mean value across groups. However, a closer examination shows that confidence intervals for social workers do not overlap with those for the male-dominated occupations (confidence intervals not displayed, available upon requests). For agreeableness, the coefficients for psychologists and social workers are positive and significant, while those for civil engineers and police officers are negative. For police officers the coefficient is not statistically different from zero but nonoverlapping confidence intervals suggest that police officers are less agreeable than social workers but not less agreeable than psychologists.

For self-esteem, the coefficient for police officers is significant and positive. The coefficients for the female-dominated occupations are all negative but nonsignificant. This is the case also for civil engineers and closer examinations show that confidence intervals overlap for all occupations. Regarding emotional stability, the significant regression coefficients pointing in different directions and the nonoverlapping confidence intervals suggest that police officers and social workers are more emotionally stable than civil engineers and psychologists.

Thus, in support of H2 we find that individuals working in the male-dominated occupations are more risk-taking and tend to be more agreeable than individuals working in the female-dominated occupations. Contrary to the hypothesis, individuals in the male-dominated occupations do not report higher levels of self-esteem for emotional stability. As expected we do not find any clear pattern relating to 'male' or 'female' traits for the gender-integrated occupation of lawyers. For example, lawyers are similar to psychologists and social workers in terms of risk taking, but lower in agreeableness. For the other personality traits—extraversion, conscientiousness and openness—the lack of any pattern reflecting the gender composition of the occupations is in line with our predictions.

Although psychologists, too, score lower on stability, the gender separate regressions show that this is only true for men. Presumably, this could reflect internal gender segregation in the psychology profession. For self-esteem, we find no clear occupational pattern. Possibly, this result may reflect the fact that the sample comprises only highly educated individuals.

Regarding the relationship between personality and wages we find, in line with previous research, positive wage effects of self-esteem and risk-taking. However, agreeableness and emotional stability have no significant overall effect on wages. Even in this sample, we find a significant gender wage gap, but men's higher wages cannot be ascribed to gender

differences in personality. Instead, the results suggest that the valuation of certain traits may vary by gender. In line with a previous study, and despite our select sample, we find that agreeableness has a significantly negative wage effect for women but not for men. Thus, although women choosing 'gender-atypical' occupations are to some extent 'gender-atypical' in their personalities they may still be rewarded less than men with similar traits. However, we do not find the valuation of 'male' and 'female' personality traits to vary systematically with the gender composition of the five occupations, either for men or for women.

We should underline that this is an explorative study with several limitations. Obviously, the cross-sectional data does not allow us to make any inferences about causality. Also, as most previous studies, we use self-reported personality measures based on standardized scales. Such measures may be influenced by social stereotypes and social desirability response tendencies and, as discussed above, these patterns may also be gendered. More broadly, the strengths of our approach also constitute its weaknesses and a motivation for further research. With a select sample of Swedish high-skilled individuals in five professions, we aimed to provide a closeup study of gender and occupational choice that would be a strong test of theoretical assumptions of gender differences. However, this sample does not allow for general conclusions about the relationship between occupational gender segregation and personality and by definition, we cannot study how gender intersects with education/class (or other social stratifications such as age or ethnic background).

Nevertheless, our findings point to the relevance of further exploring the subject of personality and gendered occupational choice. This could and should be done in studies with a broader population; however, our results point to the importance of carefully disentangling gender from occupation and other factors such as educational level that may modify or suppress gender effects. In particular, there is a need for longitudinal studies which could indicate whether the relationship between gender, occupation and personality is a question of just sorting individuals according to their preferences and abilities or if personalities are formed in a socialization process that continues through higher education programs and school-to-work transition. If the latter is the case, the tendencies to occupational de-segregation that can be discerned, particularly in prestigious previously male-dominated occupations, may also imply diminishing gender differences in personality. Finally, we note, with Connell, that although "our images of gender are often dichotomous, [—] the reality is not" p. 8]. Therefore, future research should also include mixed-method approaches, where quantitative analyses of gender categories are combined with qualitative studies exploring the processes gendering both occupations and personalities.

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