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Assessing the Impact of Perceived Attractiveness
and Personality Traits on Hiring Decisions**

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ABSTRACT

Better Sexy than Flexy? A Lab Experiment Assessing the Impact of Perceived Attractiveness and Personality Traits on Hiring Decisions

In this letter we present a laboratory experiment to assess the relative and independent effect of perceived attractiveness and personality traits on hiring decisions. Our results indicate that attractiveness and conscientiousness, followed by emotional stability, are important drivers of recruiters' decisions.

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I. Introduction

Recently many labour economists have focused on identifying the relationship between individual non-cognitive attributes and labour market outcomes. In particular, two driving attributes have been investigated: physical appearance and personality traits. On the one hand, following the seminal work by Hamermesh and Biddle (1994), economists have been assessing the beauty premium in the labour market (see, for example, Andreoni and Petrie, 2008; Pfeifer, 2011). Explanations for this premium include not only productivity related reasons such as self-confidence (Mobius and Rosenblat, 2006) but also employer discrimination (Cameron and Collins, 2010). On the other hand, following psychological literature showing an effect of personality traits on job proficiency (Barrick and Mount, 1991), economists have been identifying evidence for a personality premium, indicating positive roles for conscientiousness (Mueller and Plug, 2006), emotional stability (Uysal and Pohlmeier, 2011) and openness to experience (Heineck, 2011).

Two questions arise. First, to what extent can the personality premium be explained by its impact on hiring chances on the one hand and to what extent on job proficiency on the other hand? While for the beauty premium it is clear that recruiters act in favour of attractive people, the direct impact of revealed personality traits on recruiters' decisions remains to be elucidated. Second, what are the relative and independent effects of attractiveness and personality traits? Most previous studies have focused on only one of the two attributes rather than examining them jointly,¹ so that it has not been possible to compare the magnitude of their effects within one research framework. In addition, the aforementioned studies have not been able to identify their independent impacts. The latter is due to correlation between perceived attractiveness and perceived personality traits (Dion *et al.*,

¹ Notable exceptions are Robins *et al.* (2011), who study the beauty premium in the United States while controlling for personality traits, and Chang and Weng (2012), who investigate the relative wage effect of physical appearance and risky sex behaviour among prostitutes.

1972) so that the beauty premium in previous studies may have been partially picking up the effects of omitted personality factors, and vice versa.

In this study we jointly assess the beauty and personality premiums in the context of first hiring decisions. We do this by setting up a laboratory experiment in which subjects performing in the role of recruiters rated (i) the personality traits of fictitious male job candidates following The Big Five Model of Personality, (ii) the candidates' attractiveness and (iii) the likeliness they would invite these candidates for a job interview. Through regression analysis on the obtained dataset, we discuss the relative and independent impacts of perceived attractiveness and perceived personality traits on the probability of an invitation.

II. Methodology

Our experiment was conducted in November 2012. We recruited 159 subjects from the undergraduate Microeconomics classes at Ghent University. These subjects were 19 or 20 years old.² At the beginning of the experiment, subjects were informed about their role as a recruiter for a starter job in the financial sector deciding on the selection of candidates for first job interviews. Their assessment was to be based on 22 photographs³ of fictitious male graduates with a Bachelor's degree in business administration,⁴ all of whom matched the job specifications and had the same job-relevant characteristics.⁵ Subjects had 45 seconds to assess 12 statements about each candidate. Before starting the assessment these statements

² Falk et al. (2013) and Hosoda et al. (2003) show that, both in general and also more specifically in rating job candidates, students' ratings are nearly identical to those of professionals.

³ These photographs were bought from microstock photography agencies.

⁴ This degree corresponds to the ISCED 5 level. ISCED stands for International Standard Classification of Education.

⁵ Providing subjects only with photographs is common practice in the cited literature in which laboratory experiments are designed to assess the beauty premium in the labour market. By doing this, any dependence of hiring outcomes on other information than (perceived) attractiveness and personality traits is erased (subjects may be more perceptive about good additional information about candidates with advantageous indices for attractiveness and personality traits). However, our design choice may at the same time lead to a degree of overexposure of the attributes revealed by the photograph in comparison with more realistic settings in which for example the photograph is included in a resumé. Therefore, when discussing our statistical results, we do not focus on the particular magnitude of an attribute but rather on its relative effect compared with other attributes.

were read out aloud by the experimenters after which the subjects could ask clarifying questions. After assessing 11 candidates the subjects were allowed a pause of 1.5 minutes.

First, the subjects assessed the Ten-Item Personality Inventory (Gosling et al., 2003) for each photograph. Adopting this inventory, subjects had to assess 10 statements related to the Big Five personality traits (agreeableness, conscientiousness, emotional stability, extraversion and openness to experience), indicating their degree of agreement with each statement on a 7-point Likert Scale from “strongly disagree” (1 point) to “strongly agree” (7 points). For each trait, there were two statements. In our analysis, we construct a single index for each personality trait by adding up the numeric values of their answers for these two statements, dividing the resulting number by two and reducing it by 4 to get an index going from -3 to 3. Second, the subjects assessed the statement “I see this person as attractive” and, subsequently, the statement “I would invite this person for a job interview” on the 7-point Likert Scale, giving us a similar index for these judgements. For the regressions, we standardise these indices by subtracting the regression sample mean and dividing by the standard deviation.

Table 1 presents some descriptive statistics for our experimental dataset. Panel A describes the average value (over the total sample) of the indices for attractiveness and the Big Five personality traits. In Panel B and Panel C we outline these average scores for the subsamples of observations with low indices (those of -2 or -3) and high indices (2 or 3) for the probability of an invitation. In Panel D and Panel E we provide the reader with subsample averages by attractiveness. On the one hand, we observe that all non-cognitive attributes under investigation correlate positively with the invitation probability. On the other hand, the scores for the Big Five personality traits correlate positively with the scores for attractiveness. The latter observation supports our reasoning for jointly assessing both kinds of non-cognitive attributes.

Table 1: Descriptive statistics

Non-cognitive attribute	A. All observations	B. Low index probability of invitation	C. High index probability of invitation	D. Low index attractiveness	E. High index attractiveness
Attractiveness	-0.35 (1.53)	-1.52 (1.44)	0.52 (1.44)	-2.45 (0.50)	2.13 (0.34)
Agreeableness	0.23 (0.87)	0.11 (1.03)	0.31 (0.77)	0.08 (0.98)	0.45 (0.81)
Conscientiousness	0.15 (1.16)	-0.68 (1.18)	0.83 (1.05)	-0.17 (1.26)	0.68 (1.11)
Emotional stability	0.31 (1.08)	-0.34 (1.20)	0.87 (1.05)	-0.19 (1.19)	1.07 (0.98)
Extraversion	0.21 (1.34)	-0.43 (1.56)	0.68 (1.27)	-0.32 (1.42)	0.99 (1.24)
Openness	0.37 (1.17)	-0.20 (1.33)	0.84 (1.10)	-0.11 (1.29)	1.13 (1.05)
Observations	3498	510	904	879	400

Notes: Reported figures are the indices' means, with standard deviations in parentheses. A low (high) index means an index of -2 or -3 (2 or 3). For some attributes the number of observations is (< 2%) smaller than the reported number due to missing answers in the questionnaire.

III. Results

In our main analysis of the experimental dataset, we regress the (standardised) index for the probability of inviting candidates for a job interview on the (standardised) indices for perceived attractiveness and the Big Five personality traits. We do this by means of linear regressions, clustering the standard errors at the subject level. Table 1 reports the estimation results.

We first focus on Panel A1, which presents the estimation results for our benchmark model using the total sample. On the one hand, we find, in line with the recent evidence described in the introduction, a highly significant positive impact of perceived attractiveness on the probability of invitation. An increase of perceived attractiveness with one standard deviation increases the likeliness of an invitation with about 29% of a standard deviation. On the other hand we find a highly significant positive effect of perceived conscientiousness, emotional stability, extraversion and openness. The impact of conscientiousness is even higher than the impact of attractiveness. This evidence for the importance of conscientiousness is in line with the literature (see introduction) and also with the academic

psychological literature indicating that of all personality traits conscientiousness is the most important driver of job proficiency (Barrick and Mount, 1991).

As most of the subjects registered their names, we are able to break down our results by the gender of the subject. We note three differences between Panel B1 and Panel C1. First, perceived attractiveness and conscientiousness are rewarded more by male subjects. Second, we observe a weakly significant negative effect of perceived agreeableness among female subjects and no effect among male subjects. Third, we observe a significantly positive effect of openness among female subjects and no effect among male subjects.

In an extended version of our model, we interact the Big Five personality traits with dummies indicating a high index for attractiveness (2 or 3) on the one hand and a low index for attractiveness (-2 or -3) on the other hand. Panel A2, Panel B2 and Panel C2 of Table 1 outline the results for this extended model. Overall, this operation does not change the empirical pattern for the variables adopted in the benchmark model. Among female subjects, however, perceived extraversion has a positive effect on the probability of invitation only for candidates who are perceived as less attractive. Moreover, among these female subjects, agreeableness has a negative effect for highly attractive candidates and emotional stability has a more pronounced positive effect for them. Interestingly, across all panels on the extended model, we observe that conscientiousness is less rewarded for highly attractive people.

Furthermore, since our dependent variable is not continuous, as a sensitivity analysis we adopted two alternative econometric specifications. First, we regressed the invitation probability index on the standardised non-cognitive attribute indices by an ordered probit model. Second, we regressed a dummy variable indicating a high probability of invitation (index 2 or 3) on the standardised non-cognitive attribute indices by an ordered probit model. These exercises, however, lead to very similar research results.

IV. Conclusion

This letter has outlined the results of a laboratory experiment jointly assessing the beauty and personality premiums in first hiring decisions. The results to take away are that perceived attractiveness and conscientiousness are important drivers of a recruiter's decision to invite a candidate for a job interview. Both attributes are rewarded more by male recruiters while female recruiters value openness more than male recruiters do. Furthermore, attractiveness and conscientiousness are to some extent substitutes for each other, the latter attribute being less rewarded for highly attractive people.

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Table 2: Regression results

Independent variables	Dependent variable: probability of invitation index											
	A. All subjects				B. Female subjects				C. Male subjects			
	A1.		A2.		B1.		B2.		C1.		C2.	
	Benchmark model	Extended model			Benchmark model	Extended model			Benchmark model	Extended model		
Attractiveness	0.29***	(0.03)	0.29***	(0.03)	0.27***	(0.05)	0.26***	(0.05)	0.36***	(0.03)	0.36***	(0.03)
Agreeableness	0.00	(0.02)	-0.03	(0.02)	-0.05*	(0.03)	-0.05*	(0.03)	0.02	(0.03)	-0.02	(0.04)
Conscientiousness	0.35***	(0.02)	0.36***	(0.02)	0.31***	(0.03)	0.35***	(0.03)	0.39***	(0.03)	0.38***	(0.03)
Emotional stability	0.13***	(0.02)	0.13***	(0.02)	0.17***	(0.04)	0.16***	(0.03)	0.11***	(0.03)	0.14***	(0.03)
Extraversion	0.08***	(0.02)	0.06**	(0.03)	0.07**	(0.03)	0.03	(0.04)	0.07**	(0.03)	0.10***	(0.04)
Openness	0.07***	(0.02)	0.06***	(0.02)	0.10***	(0.02)	0.08**	(0.03)	0.02	(0.02)	0.01	(0.03)
Agreeableness*high attractiveness			0.03	(0.07)			-0.14**	(0.07)			0.03	(0.09)
Conscientiousness*high attractiveness			-0.15***	(0.05)			-0.19***	(0.06)			-0.11*	(0.06)
Emotional stability*high attractiveness			-0.02	(0.05)			0.15**	(0.06)			-0.09	(0.07)
Extraversion*high attractiveness			0.09	(0.06)			-0.10	(0.11)			0.05	(0.08)
Openness*high attractiveness			-0.03	(0.07)			0.06	(0.10)			0.04	(0.06)
Agreeableness*low attractiveness			0.07*	(0.04)			0.04	(0.05)			0.11*	(0.06)
Conscientiousness*low attractiveness			0.00	(0.04)			-0.06	(0.06)			0.06	(0.05)
Emotional stability*low attractiveness			0.00	(0.05)			0.02	(0.07)			-0.04	(0.06)
Extraversion*low attractiveness			0.04	(0.04)			0.14**	(0.06)			-0.09	(0.06)
Openness*low attractiveness			0.01	(0.04)			0.06	(0.06)			0.03	(0.06)
Constant	0.00	(0.03)	0.01	(0.03)	0.00	(0.04)	0.01	(0.04)	0.00	(0.04)	0.01	(0.04)
R ²	0.38		0.39		0.37		0.38		0.48		0.48	
Subjects	159		159		75		75		69		69	
Observations	3389		3389		1583		1583		1486		1486	

Notes: Standard errors, clustered at the subject level, in parentheses. *** (**) (*) indicates significance at the 1% (5%) ((10%)) level. All indices are standardised. The number of observations is lower than the number of subjects multiplied by the number of photographs due to missing answers. Breaking down the regressions by the gender of the subject leads to loss of observations due to missing subject names (and therefore missing gender).

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