

Can Type A personality and job competitiveness lead to biased recruitment decisions?

Namita Kawade

ANR: 194998

SNR: 2067167

Tilburg School of Social and Behavioural Sciences, Tilburg University

Master Thesis: Work and Organizational Psychology

Supervisor: Dr. Ivana Vranjes

Second reader: Dr. Dongning Ren

April 1, 2022

Abstract

Similarity bias dictates that individuals are attracted to others who they perceive as similar to themselves. However, these 'similar' others may also be perceived as threats to self and therefore as competitors. The theoretical basis for this research is borrowed from Deutsch's theory of cooperation and competition (1949). The present study aimed to investigate if individuals with a Type A personality who are hiring a candidate for a job let their relative comparison of competitiveness with the candidate influence their hiring decision. It is hypothesized that Type A individuals select a less competitive candidate than an equally or more competitive candidate as themselves (i.e., 'negative selection'). In addition, I propose that this is more likely to occur in a competitive job context than in a non-competitive job context. The study was conducted among employed and unemployed individuals using experimental vignette design. The results were analyzed using Multinomial Logistic Regression Analysis. The results showed a general overall preference for the equally competitive candidate. For the first hypothesis, type A personality did not lead to selection of a less competitive candidate compared to an equally or more competitive candidate. Competitiveness of the job context also did not moderate the relationship between type A personality and selection decision. Therefore, both hypotheses of the study were rejected. Although negative selection was not established, evidence for similarity bias was observed. Furthermore, the paper discusses limitations and implications of negative selection and makes recommendations for future research.

Introduction

Recruitment and hiring of new personnel are one of the most crucial processes of any organization. In hiring, the aim is to select the right person for the right job (Roselius & Kleiner, 2000). Hiring decisions are important because they affect organizational growth. When organizations hire the right candidate, they improve their abilities to realize their goals and manage any future challenges that may arise (Gatewood, Feild & Barrick, 2010). Therefore, these decisions must be logically based and not based on intuition. Intuition leads to the interviewer hiring a candidate because of personal biases rather than the capability of the candidate (Roselius & Kleiner, 2000). These biases can have serious implications such as high turnover and can hurt organization morale by increasing stress levels of employees (Sanford, 2005; Peregrin, 2014). Consequently, the psychology behind hiring decisions that discriminate against others needs to be explored in-depth to understand how they are being made.

In this study, I try to understand the effect of similarity bias and negative selection. Similarity bias is a widely studied concept. It is a type of cognitive bias in which there is a strong tendency to connect with similar others, meaning people who are alike to us in terms of interests, experiences, backgrounds, or other factors. Research studies in the recruitment sector have evidenced that individuals tend to get attracted to 'similar' others and this guides their decisions (Goldberg, 2005). However, some literature suggests that similarity can be perceived as a threat to oneself, especially when people see others as competitors (Lee et al, 2005). I refer to this phenomenon as 'negative selection'. Yet, 'negative selection' has not been studied in the context of recruitment in organizations. We therefore lack the understanding on its impact in the recruitment and selection context, despite its potential negative effects on recruitment decisions.

Based on the model of interdependence (Deutsch, 1949; Lee et al, 2005), the current study focuses on Type A personality as a predictor of hiring decisions in an organization. Type A individuals are characterized as being extremely motivated to maximize their achievements and for this purpose, they are willing to take personal risks (Lauriola & Levin, 2001). They also tend to have a belief that 'resources are scarce' (Martin, Kuiper & Westra, 1989). Therefore, I argue that that Type A recruiters may view candidates with similar characteristics as a threat, thereby discriminating against them. It is expected that Type A recruiters are likely to choose a candidate who is lower than them on competitiveness in a competitive environment more than in a non-competitive environment. My research question therefore is 'Do type A recruiters make a biased hiring decision based on their relative comparison with the job candidate's competitiveness, and will this effect be moderated by competitiveness of the job context?'

This research study has two important contributions. First, theories that provide the basis of similarity bias have been widely investigated. However, there is not a lot of theoretical background about discrimination against similar people. This research can give way for the investigation of this topic within many areas of social science that concern decision-making. Second, the results have implications for recruitment in companies. Organizations can devise ways to eliminate biases of recruiters so as to make a well-informed decision about hiring a candidate. According to Davidson and Cooper (1983), two-thirds of executives have Type A personality traits ranging from moderate to extreme. It is important to examine if this relative comparison influences their decisions. If so, this would be a biased decision that colors reality and can have huge repercussions for the organization. Moreover, ethical concerns become a part of the equation when biased decisions are made as they tend to overlook the capability of a candidate.

Similarity Bias

One of the most widely studied biases or effects in social science research is the similarity effect. According to Byrne (1971), when a target is perceived to be similar in terms of attitudes, personality, and other attributes, attraction to the target will increase. This is because individuals have an inherent need for a logical and consistent view of the world around them. This need was termed as *effectance motive* by Byrne. People who we perceive as similar to us validate our ideas, which further reinforces our consistency. On the other hand, people who disagree with us create inconsistency in our perceptions about the world. This disturbs the effectance motive within an individual. Similarity acts as a reinforcer and is associated with positive feelings. Therefore, this reinforcement model states that human beings tend to be attracted to similar others (Byrne, 1971). Research has evidenced that personality trait similarity leads to attraction towards the target (Byrne et al, 1973). Multiple studies have provided evidence for the similarity effect which states that individuals tend to get attracted to similar others (Kristof Brown et al., 2005; Selfhout et al, 2009).

Similarity bias has also received considerable attention in the context of recruitment. Many studies have found presence of the similarity bias in the recruitment and selection process (Orpen, 1984; Goldberg, 2005; Diaz et al, 2019). In an empirical study by Orpen (1984), this effect was studied in relation to the interviewer's attraction to a perceived similar interviewee and the hiring decision that followed. Perceived similarity was found to have a positive relationship with attraction and the decision to hire the candidate. In another study, it was demonstrated that high attitude similarity results in significantly higher decisions to hire hypothetical applicants who the interviewer perceives as 'similar' to self (Griffitt & Jackson, 1970). In a recent study about recruitment and similarity bias among scientists in academia, it was found that perceiving similarity between oneself and candidates played a big role in selection of candidates (Roebken,

2010). In her book 'The Illusion of Inclusion' (2016), Helen Turbull calls similarity bias the 'mini-me' syndrome and posits that this unconscious bias may also be a barrier to inclusion of individuals who might be different from us.

According to Morgan & Carley (2012), several factors can contribute to similarity bias in hiring decisions. 'Social distance' is one such factor which is defined as the perceived distance between the candidate and the committee members. Hiring managers or decision makers may display similarity bias in this aspect by perceiving 'similar others' as having low social distance and 'unsimilar others' as having large social distance. The bias may cause them to choose the candidates having a low social distance as similar attributes can help to build interpersonal connection (Morgan & Carley, 2012). Hence, previous research suggests that there is a good chance that a recruiter will tend to make a biased decision in favor of a candidate who is perceived as being similar to oneself.

Similarity Bias and Discrimination in Recruitment

It is a well-established phenomenon that individuals are consciously or unconsciously affected by the similarity bias in many contexts, including during the recruitment process. However, is it possible that recruiters may perceive a similar other as a threat to themselves, and can this bias their selection decisions? In this study, I refer to this effect as 'negative selection'. Negative selection has been observed in political processes, mainly rigid systems, or dictatorial environments, in which a person in a powerful position may choose highly incompetent associates because these associates will be less likely to challenge the powerful person and thus, he gets to retain his position of power (Accountability institutions, political capture and selection into politics, 2019). However, there have been no studies so far that investigate this bias in recruitment or other contexts.

Negative selection bias can be understood through the lens of Deutsch's theory of social interdependence (1949). This theory states that there are two types of interdependence in a social setting - positive and negative which represent cooperation and competition, respectively. In positive interdependence, individuals believe that they can successfully attain their goals only if other members in the group succeed in attaining their goals (Cooperation). In negative interdependence, individuals believe that they can successfully attain their goals only if other members fail to attain their goals (Competition). The gist of this theory is that the structure of the goals determine how participants in a group will interact with each other. In a cooperative group, members will encourage each other's success whereas, in a competitive group, members will be opposed to another's success.

Following Deutsch's theory, Lee et al (2015) studied this phenomenon in the context of selection decisions. It is important to note here that hiring decisions are not necessarily made by Human Resource (HR) specialists. Most small companies do not have a human resources department, especially start-ups (Weber & Feintzeig, 2014). Consequently, many contemporary organizations include their current employees as part of a recruitment panel deciding about their future colleague (Clement, 2013; Bush et al, 2006). The implications for a colleague who is recruiting can be different from an HR recruiter since colleagues have to work conjointly. There can be a scenario in which a future colleague who is recruiting may expect a hired candidate's future job performance to be relevant to their own personal outcomes or goals. If hired, the candidate and the recruiter will be colleagues to each other. The candidate's job performance can impact the recruiter's performance too, especially if they work together. Hence, the candidate's performance can either help or threaten the recruiter's personal goals. If the candidate's success at a task helps the recruiter to excel at his own task, there will be cooperation between them.

However, if the candidate's successful performance threatens the success of the recruiter's task, there will be competition between them. A recruiter will consider this relationship and then make a hiring decision based on this. The hiring decision will be based upon how helpful or threatening do recruiters perceive the candidate to be to their own goals (Johnson & Johnson, 1989; Lee et al, 2015).

Therefore, contrary to the similarity bias, a recruiter may discriminate against someone who he perceives to be similar to self, especially in a competitive job environment. In such an environment, the stakes are high, and recruiters can perceive similar others as a threat, especially when there are not enough resources for all. The results of the study by Lee et al (2015) established that similarity bias can be overridden by the self-interests of the decision-maker. This concept of 'self-interest' and candidate selection also needs to be researched further.

Type A Behavior Pattern in Organizations

The Type A behavior pattern is described as 'an action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing effects of other things or persons (Friedman & Rosenman, 1986). It has been suggested to be a risk factor for coronary heart disease (Rosenman, 1978; Rosenman & Chesney, 1980; Shaw & Dimsdale, 2007). Type A individuals have rigid personalities and may work against others to achieve their high goals. Extreme aggressiveness easily aroused hostility, and highly competitive achievement striving are behaviors observed in this type of personalities (Rosenman, 1978). These factors can make Type A personalities highly aggressive when they are focused on achievement.

Studies about psychological processes suggest that Type A individuals may have negative self-evaluations. According to Martin, Kuiper & Westra (1989), Type A individuals hold high

performance standards for themselves. These standards are the driving force behind competitively striving for achievement which can become aggressive. They try to meet these standards with an almost 'Come what may' attitude because their self-evaluations are based on achievement. When threats to one's self-worth are perceived, Type A individuals may engage in ways to reduce these feelings of threat and insecurity, even if it means displaying aggressive and hostile behaviors. Compared to Type B personalities, Type A generally view most situations as a threat to oneself which can lead to high achievements (Martin, Kuiper, & Westra, 1989). Therefore, we can conclude that self-worth in these types of individuals may be very dependent on how much they achieve. According to Streufert (1968), these individuals may also be more prone to risk-taking when it comes to making decisions and therefore are likely to make errors in judgment.

This Study

Type A individuals tend to challenge others or engage in competition even in situations that are not inherently competitive (Matthews, 1982). In the current study, it was hypothesized that Type A individuals who make hiring decisions discriminate against a 'similar' other. They may select a candidate who poses no threat to their personal outcomes and goals. Candidates who have the same levels of competitiveness or even higher levels are eliminated in the recruitment process.

According to the theory of interdependence, Type A personalities make selection decisions in favor of a candidate who is 'cooperative' as opposed to one who is 'competitive'. A similarly competitive individual can aim for the same resources or goals as a Type A colleague. Achievement striving is an important aspect to these individuals and according to the definition they may also work against the opposing effects of other people. If a Type A recruiter perceives a threat to their own position, it can have serious consequences for their self-worth which anyway

tends to be negative. Therefore, they may engage in hostility and aggressive competition to eliminate this threat. Therefore, my first hypothesis is

H1: The higher the recruiter's score on Type A personality trait, the more they will be inclined to select a candidate who is less competitive than a candidate who is equally or more competitive than them.

It is safe to assume that competitiveness within these individuals might rise to unhealthy levels in an actual competitive environment. The context or environment will be manipulated in this study as competitive and noncompetitive. Consider a scenario in which a candidate is equal or more than the Type A individual in competitiveness in a highly competitive environment. This context already demands employees to be more competitive for resources. Type A individuals tend to hold a belief that 'resources are scarce'; they seem to be engaged in a struggle to control their environment especially when they perceive that it may psychologically harm them (Matthews, 1982). For instance, if a promotion opportunity opens for just one person, a Type A individual might view a similar other as a strong threat. A candidate who is equal in competitiveness or even more competitive than them can pose a serious threat not just to the position but also to the self-esteem of a Type A individual. Therefore, my second hypothesis is as follows.

H2: The preference of a recruiter who scores high on Type A personality trait of selecting a less competitive candidate over an equally or more competitive candidate will be amplified in a competitive job environment.

Methods

Sample

The sampling technique that was used is snowball technique. Participants were recruited through social media platforms like LinkedIn, Facebook, and network contacts. An anonymous

link containing a survey with experimental vignettes along with questions assessing the hiring decision were sent out. The survey was in English. There were no criteria for nationality, geographic location, gender, or other demographics. Power analysis for sample size had been computed using the formula $N > 50 + 8 * \text{number of predictors}$ (Tabachnick & Fidell, 2013). The predictors are type A personality, context of the job environment and the interaction between type A personality and the context. According to this formula, the minimum number of participants required for the study was 74. The sample collected initially for this study consisted of 130 participants.

Then, data cleaning was done. The survey also contained a condition for selection decision by hiring managers in addition to employees. For the hypothesis of this study, the aim was to examine selection decisions in 'employees'. Therefore, participants who undertook the hypothetical role of 'hiring managers' were removed from the data. Further, participants who did not give their consent for the study were removed. Participants who did not answer any questions related to selection decision and the type A personality scale and therefore did not complete the survey were removed too. Participants who failed the attention check question were removed as well. Lastly, a few participants who completed the survey under 5 minutes were discarded as they were outliers in the data and their responses had many discrepancies (e.g., selecting a candidate as their preferred choice but rating that candidate low in the ranking questions). Participants who took a long time to complete their responses were left in the sample as one can take a few days to complete it too. Finally, a total of 78 participants constituted the final sample for the study.

Analysis of the sample showed that 41% of the sample was male. The mean age of the sample was 27 years. All participants in the sample had a sufficient knowledge of English. 20.5% of the sample was employed part time at the time of the survey and 46% were employed full time.

53.3% of the sample had been part of recruitment or selection decisions at their workplace while 46.2% had not.

Procedure

This study had been approved by the TSB Ethical Committee. The method of study is called Experimental vignette design (EVM). According to Aguinis & Bradley (2014), EVM is a method that enhances experimental realism which can help to investigate a participant's judgments or choices. Participants were presented with well-constructed and realistic scenarios to assess the dependent variable, which in this case is choice of hiring (Aguinis & Bradley, 2014). The appendix section in this paper describes the vignettes that were used. A survey was constructed using vignettes and distributed via Qualtrics. The survey began with a short description of the study and informed consent for the participants. Participants held the right to withdraw from the survey at any moment.

Next, participants read the vignettes which described hypothetical scenarios. For the vignettes, people were presented with a hypothetical scenario in which their task was to hire a candidate in their department of a hypothetical organization. The context of the organization was manipulated as competitive and noncompetitive. In the competitive condition, the organization was described as a 'dog-eat-dog' world where winning is the only important thing. In the noncompetitive condition, the organization was described as a cool place where integrity is valued more than power. Hence, there were two vignettes in the survey. The questions in both the scenarios were the same. Participants were randomly assigned to one of the two conditions. Therefore, it was a between-subject design.

This was followed by various psychometric scales including the scale for assessing Type A personalities. The survey then contained questions about demographic details such as age, gender, nationality, profession, fluency of language. Finally, participants were asked to select one candidate out of three for the organization. They read the descriptions of three candidates. The three candidates were described as intelligent, friendly, ambitious, assertive. Synonyms of these four adjectives were used for the three candidates so that they will appear different yet have the same traits. Finally, the three candidates were respectively described as being less competitive than the participant, equally competitive, and more competitive than the participant. Then they were asked to make a choice between the three candidates who are equally qualified for the position but who differ on their level of competitiveness in comparison with the participant.

Measures

To measure selection decision, participants were asked to select their preference of which candidate they will prefer out of less competitive than them, equally competitive as them, and more competitive than them. The vignettes in the appendix section of this paper contains these questions that will be used to assess preferences.

Type A Personality was assessed using a shortened version of the Bortner Rating Scale by Raymond Bortner (1969). The scale is originally a 14-item instrument with each item consisting of two contrasting adjectives. Participants must select the number which denotes the extent to which they display the concerned behavior. The numbers range from 5 to 0 to 5 again representing the extreme of Type A and Type B behavior and can be thought of as a dimension. According to Bortner (1969), most of us belong somewhere in the middle. The scoring method is from 11 to 1 in a descending order which corresponds to the numbers 5, 4, 3, 2, 1, 0, 1, 2, 3, 4, 5. Finally, the sum of the scores depicts to what extent an individual possesses Type A traits. It has been described

more in detail with an example below. The Type A questionnaire was shortened from 14 items to 7 most psychometrically sound items (Bortner, 1969). A sum score was calculated for all participants. Accordingly, the minimum possible score was 7 and maximum was 77. A score of 44 to 77 denotes Type A personality.

The reliability estimates of this scale range from .53 to .68. The inter-rater reliability is .93. The test-retest reliability among a sample of 65 men and 31 women was found to be 0.84 (Bass, 1984). The scale also showed a high validity with Jenkins Activity Survey (1979) which was one of the first tools to measure Type A behavior. An example item is:

Please circle the number that you feel most closely represents your behavior.

Never Late. **5 4 3 2 1 0 1 2 3 4 5** *Casual about appointments.*

Scoring: 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. (If a participant selects the first '5' near the 'Never Late' extreme, his or her score on that item will be 11).

Results

Manipulation

Analysis of the sample showed that 41% of the sample was male. The mean age of the sample was 27 years. All participants in the sample had a sufficient knowledge of English. 20.5% of the sample was employed part time at the time of the survey and 46% were employed full time. 53.3% of the sample had been part of recruitment or selection decisions at their workplace while 46.2% had not.

A t-test was conducted to investigate if participants in the noncompetitive and competitive conditions perceived their organizational context as noncompetitive and competitive respectively. This helped to see whether there was a significant difference between the two and whether the competitive condition was perceived as more competitive on average. The manipulation check question in the survey was 'How competitive is the climate at the company?' There were 37

participants in the noncompetitive condition and 41 in the competitive condition. The t-test revealed that participants in the competitive condition perceived their setting as significantly more competitive than those in the noncompetitive condition ($p < 0.01$).

Data Inspection

For statistical analysis of data, IBM SPSS Statistics 28 was used (Armonk NY: IBM Corp). The results were analyzed using Multinomial Logistic Regression Analysis which is used for prediction of membership in a category based on many independent variables. The independent variable can be nominal or continuous. It is an extension of binomial logistic regression. Multinomial logistic regression uses maximum likelihood estimation to predict in which category the concerned membership falls. It helped to see whether Type A participants chose a less competitive candidates over equally and more competitive candidates. It helped to assess whether this relationship is amplified in a competitive job environment than in a noncompetitive environment. Competitiveness of the environment was recoded in SPSS as competitive environment denoted by 1 and non-competitive environment denoted by 2. The scores of the Type A questionnaire were also recoded in Qualtrics before the data was exported to SPSS. Then, the sum of scores were computed as a new variable in SPSS.

There are six assumptions to test before using multinomial logistic regression. Firstly, the dependent variable should be nominal. The dependent variable in the study is candidate preference which has three categories of candidate: less competitive than the participant, equally competitive as the participant, and more competitive than the participant. Secondly, the independent variable should be continuous or categorical. The independent variable here, type A personality, was continuous as it was computed as a sum. For the third assumption, there should be independence of observations and the dependent variable should be mutually exhaustive and exclusive. The data

in the study was independent, as each participant underwent a condition once. The dependent variable was exclusive and exhaustive too. Fourthly, correlation was done to check for assumption of multicollinearity. This assumption was required for the second hypothesis. It allowed to see if there is a relationship between type A personality and the selection decision of participants. Variance inflation factor (VIF) helps to measure correlation and strength in relationship. It showed how much variance of type A personality is influenced by its interaction with context. In our study, the variance inflation factor for type A personality and context was 1. VIF of 1 indicates no collinearity whereas more than 5 indicates a strong collinearity. Therefore, this assumption was not violated. For the fifth assumption, there needs to be a linear relationship between the independent variable and logit transformation of the dependent variable. A logit transformation of the dependent variable was done in SPSS. Correlation between the independent variable and the logit variable was done. There was strong linear correlation present between the two ($p < .001$). Lastly, outliers should not be present. The data was already checked for outliers which were removed. Therefore, all the assumptions were met.

Descriptive analysis of this showed 47.4% of participants received a vignette for noncompetitive environment and 52.6% participants received a competitive environment. 71.7% of the sample identified as having moderate Type A personality that is almost more than 55 people were in the moderate Type A personality category. To test if type A score was roughly equal in both conditions, a t-test was carried out between the two conditions and the participants' score on type A score. The mean score in competitive condition was 47.43 and in the noncompetitive condition was 47.65. The difference was found to be not statistically significant ($p = .906$). This suggested that there was no difference in the scores, and they were roughly the same on average

in both conditions. Overall candidate preference has been shown in Table 1. More participants preferred equally competitive candidate which initially hinted at similarity bias.

Table 1

This table shows the number of participants who chose less, equally, and more competitive candidate in competitive and noncompetitive conditions and in total.

Condition	Less competitive	Equally competitive	More competitive
Competitive	19.5%	53.7%	26.8%
Noncompetitive	13.5%	67.6%	18.9%
Total	16.7%	60.3%	23.1%

Main Analyses

The first hypothesis in the study was that higher the recruiter's score on Type A personality trait, the more likely they will be to select a less competitive candidate than an equally or more competitive candidate. A chi-square test was used to test whether null hypothesis is rejected. Null hypothesis states that no relationship exists between the independent and dependent variable. Ideally, the null hypothesis should be rejected. The model fitting information table shows if the study's model improves prediction of outcome over the intercept model or the null model. It showed a significant result ($p < .001$). This suggested that the null hypothesis was rejected, showing that there is a relationship between the variables. Goodness-of-fit shows if there is a difference between expected values and observed values in relation to a normal population. The goodness of fit test should not be statistically significant as significance shows that the observed values are different than what is expected in a normal population. The Pearson ($p = .066$) and deviance

($p=.052$) coefficients were insignificant. This suggested that the data is a good fit. The pseudo-R-square coefficients show how much variance in results is explained through the data. Higher the coefficient, higher is the variance. The pseudo-R squared data was measured through 3 tests: Cox & Snell, Nagelkerke, and McFadden. They were respectively .258, .290, and .136 which showed moderate variance. However, there is not a lot of literature on how to interpret these values and therefore, they should be used with caution (Pituch & Stevens, 2016). The likelihood ratio tests show how much the independent variable contributed to the result. In the study, Type A contributed significantly to overall selection decision of participants ($\chi^2 (2) = 23.262, p < .001$).

Next, I interpreted the effect of Type A personality on selection decision. In the table below, the reference category is candidate 1 who is less competitive. 'B' represents the multinomial logistic coefficient. SPSS treats one category as the referent group (less competitive candidate) and then makes relative comparisons of the referent group to the other groups. Odds ratio for equally competitive individual was 1.026 which is interpreted as for every 1 unit increase in type A score the likelihood of choosing an equally competitive candidate compared to a less competitive one increases significantly ($p < .001$). Hence, participants who scored high on type A personality were significantly more likely to select the equally competitive candidate compared to less competitive one. The odds ratio value for candidate 3 who is more competitive was 1.006; interpreted as for every 1 unit increase in type A score, likelihood of choosing a more competitive candidate increased compared to less competitive candidate. However, this was not significant ($p = .414$). The preference for equally and more competitive candidate than less competitive one was also evidenced in overall selection as shown in Table 1. However, these results were not in line with hypothesis 1 which hypothesized that the less competitive candidate will be selected. Therefore, the hypothesis was not accepted.

Table 2

Parameter estimates of type A personality and selection decision.

Selection decision	Variable	<i>B</i>	<i>SE</i>	<i>p</i>	<i>OR</i>
Candidate 2	Type A	.026	.007	<.001	1.026
Candidate 3	Type A	.006	.008	.414	1.006

Note. The reference category is candidate 1 who is less competitive candidate. Candidates 2 and 3 are equally and more competitive respectively.

The second hypothesis in the study was that the preference of a recruiter who scores high on the type A personality trait of selecting a less competitive candidate over an equally or more competitive candidate will be amplified in a competitive job environment. Multinomial regression was again used to test the hypothesis. In this analysis, an interaction variable (context * Type A sum) was created in SPSS and regression was carried out along with Type A, context, and interaction variable as predictors. The model fitting information was significant ($p < .001$) suggesting that null hypothesis was rejected. The Pearson ($p = .180$) and deviance ($p = .179$) coefficients for goodness-of-fit information rendered insignificant results suggesting that observed values were in line with expected values. Pseudo R-square coefficients showed moderate variance. The coefficients of Cox & Snell, Nagelkerke, McFadden tests were .300, .338, and .163, respectively. The likelihood ratio test shows if interaction of the two contributes to the selection decision. The results showed that interaction of context and type A did not contribute significantly to the selection decision ($\chi^2(2) = 2.039, p = .361$).

The reference category in parameter estimates table was less competitive candidate. Firstly, main effects of type A score were analyzed. Odds ratio for equally competitive candidate is 1.015. This is interpreted in the way that as type A score increased, likelihood of selecting an

equally competitive candidate increased in comparison to less competitive candidate ($p = .461$). Secondly, as type A scores increased, preference for a more competitive candidate over a less competitive one increased ($p = .738$). To sum it up, as type A score increased, an equally and more competitive candidate was preferred over a less competitive one. However, these results did not render any significance at all. Hence, no conclusions can be made from it.

When only context was investigated as the main effect, it was found that there was no significant main effect of context in selecting between an equally and less competitive candidate ($p = .085$). There was also no significant main effect of context in selection between the less and more competitive candidate ($p = .404$).

Analysis of interaction of type A personality and context showed that context did not moderate the relationship between type A personality and selection outcome. In interaction, a less competitive candidate was preferred in relation to an equally competitive one as type A scores increased; but it was not significant ($p = .166$). As type A scores increased, the preference for less competitive individual also increased in comparison to a more competitive candidate. However, this was not significant either ($p = .418$). As no moderation was observed, the second hypothesis was also rejected. The parameter estimates table has been described below.

Table 3

Parameter estimates for Type A, Context, and interaction of type A and context.

Selection decision	Variable	<i>B</i>	<i>SE</i>	<i>p</i>	<i>OR</i>
Candidate 2	Type A	.015	.020	.461	1.015
	Context	2.375	1.377	.085	10.749
	Type A x Context	-.040	.029	.166	.960
Candidate 3	Type A	.008	.023	.738	1.008
	Context	1.313	1.572	.404	3.717
	Type A x Context	-.027	.034	.418	.973

Note. The reference category is candidate 1 who is less competitive. Candidates 2 and 3 are equally and more competitive respectively.

Both hypotheses of the study were rejected. There appears to be no significant relationship between having a type A personality and selecting a candidate who is less competitive than oneself compared to an equally or more competitive candidate. Competitiveness of job context does not amplify selection of less competitive candidate either.

Discussion

The aim of this research was to investigate two hypotheses. Firstly, if type A recruiters are more likely to select less competitive candidates as compared to equally or more competitive candidates. Secondly, if this effect is amplified in a competitive job context than a noncompetitive job context. Experimental vignettes were created describing either a competitive or noncompetitive job context and participants were asked to select a candidate in this context whose competitiveness was on three varying degrees. Results showed that having a Type A personality

does not make it more likely to select a less competitive candidate than self. The only significant result was that an equally competitive candidate was preferred over a less competitive candidate as type A scores increase. But this was not in line with the hypothesis. No other significant results were seen. Therefore, both hypotheses were rejected. Overall preference as seen through Table 1 seems to be for the equally competitive candidate. The significant result suggests the existence of a similarity bias.

First hypothesis was rejected as no negative selection was seen as the less competitive candidate was not chosen in relation to equally and more competitive candidate. On the other hand, similarity bias was seen as participants selected the equally competitive candidate significantly over the less competitive one. This result was completely contradicting to what was hypothesized and it is because similarity bias can be very powerful. Similarity bias dictates that we are likely to get attracted to others who share the same traits as us. It has long been studied in psychological literature. This bias was seen in the study within Type A individuals as well who are in fact described as 'competitive' and 'aggressive' when they want to achieve goals. However, type A individuals also are 'challenge seekers' (Martin, Kuiper, & Westra, 1969). It could be possible that a less competitive candidate poses no threat to them while a more competitive one poses too much threat. Therefore, they tend to select an equally competitive candidate as type A scores increase. A more obvious explanation is that candidates with similar levels of competitiveness (Jiang et al, 2010; Kaplan et al, 2016) can be more attractive and relatable to type A recruiters simply because of similarity bias. This finding strengthens social identity theory which states that individuals prefer those who belong in the same group as themselves (Tajfel & Turner, 1986).

For the second hypothesis, there were no significant results either. It was seen that context did not moderate the relationship between type A score and selection decision either. Interaction

of type A with job context did not lead to a type A participant selecting a less competitive candidate in comparison to the other two candidates. Therefore, being a type A recruiter in a competitive or noncompetitive environment does not affect whether they will select a candidate based on their competitiveness level. Similar to the previous hypothesis, no negative selection was observed here. No significant similarity bias was observed either. Rejection of the second hypothesis is a contradiction to the claim that type A personalities indulge in aggressive competition when resources are scarce (Martin, Kuiper, & Westra, 1969); which is likely to happen in a context that is competitive. This can perhaps be explained through the limitations which are described in further sections, one of the major reasons being a small sample size.

No results from the study hinted at presence of negative selection. It is noteworthy to check how the term 'competition' is perceived by people. The sample consisted of people from varying cultures and nationalities. In collectivistic cultures, cooperation among team members is encouraged whereas in individualistic cultures, competitive goals are encouraged (Tjosvold & Chen, 2010). Could the meaning of competition differ according to cultures? It may be useful to see if 'competitiveness' becomes redundant in comparison to cultural values.

Following social interdependence theory (Deutsch, 1949), it can be said participants who did not choose a more competitive candidate could have perceived the social structure of the organization as competitive and therefore, discriminated against a candidate on basis of how harmful the candidate's success would be to their own progress. Although no significant evidence was found for negative selection, similarity bias could be a factor in why participants preferred an equally competitive candidate. These results build on the pre-existing literature about similarity bias which says that individuals get attracted to others who they perceive as being similar to themselves (Goldberg, 2005; Carlsson & Sinclair, 2017; Luo & Snider, 2009). When employees

recruit a colleague who they must work with, they may look for cooperation as opposed to competition. This falls in line with findings by Lee et al (2015). Individuals may view a similar other's performance outcomes to be beneficial to their own success.

Limitations

This study of course is not without its limitations. They could also have affected the results found. First, the sample size was too small which can be considered as a major drawback. A larger sample size will help to collect more individuals with very high type A scores. It could help to investigate whether negative selection can be seen. A larger sample size will also be more representative of the population. This study also used snowball sampling technique. A different sampling method that represents the larger population may also allow to see if significance can be achieved and therefore, establish negative selection phenomenon. For future studies, it is recommended to collect a larger sample size via methods such as probability sampling which may give the best chance to capture the real population. The sample for the study consisted of employed as well as unemployed individuals. In the experimental vignettes, participants had to imagine themselves in the hypothetical situation and then make a recruitment selection decision. Unemployed participants may have limited potential to imagine themselves as part of a recruiting panel. This is because they have never experienced a working environment. Therefore, lack of experience could have impacted their choice of candidate. For future studies, it is recommended to make use of a sample that has prior experience in making a hiring decision.

Related to the above, it is important to note that mean scores of type A personality was 47 which does not count as very high type A score. A reason for this is the small sample size. A larger sample can help to see more of very high type individuals which can lead to different results; probably more in line with negative selection. A restricted range of type A scores is one of the

drawbacks of this study. Therefore, selection tendencies of the sample can be different from what can be found in very high type A individuals. For this purpose, it is recommended to gather a large sample for this type of a study.

Wording of the vignettes may have introduced confounding variables in the study. It is possible that the description of the candidates which also contained adjectives to describe the candidate could have been confounding variables in the study. For example, all three candidates were described as intelligent, smart, clever, respectively. Although these three adjectives are synonyms and their purpose was simply to make the vignettes more realistic, participants may have perceived them as important factor on which to base hiring of a certain candidate. Cultural and language differences can very well contribute to perceiving synonyms as having different meanings. It is important to investigate if the description confounded the relationship between Type A personality and selection decision. A recommendation for future studies is to make the vignettes more concise and to the point with putting 'competitiveness' as the primary adjective on basis of which decision can be made. Secondly, related to this aspect, the vignettes may not have been realistic enough for participants to truly consider themselves in the position of a hiring colleague. Social desirability bias could have easily influenced the responses and reduced their authenticity. For future studies, it is recommended to make the experimental vignettes as realistic as possible by adding more life-like elements. It is also recommended to investigate alternate methods of experimentation to truly capture a participant in a recruiter role.

Three aspects that made the study stronger are inclusion of a manipulation check to assess whether participants truly perceived their context to be competitive or noncompetitive. Similarly, the attention check question ensured that only those who were attentive throughout the study were considered in the data analysis. This contributed to validity of responses that were provided. Lastly,

mean scores of type A personality were roughly the same in both the competitive and noncompetitive conditions.

Conclusion

This study did not lead to significant results of negative selection. There may be a long way till negative selection phenomenon is established in social science research. However, this paper tries to add rationale to the concept of negative selection and describes an experimentation method through which it can be studied. The research offers some gateway to more exploratory studies about negative selection. It could have consequences for not just recruitment, but any field within the social world that requires decision making. Negative selection is still a very sociological concept and explains a lot about why powerful people in a rigid hierarchy choose to associate with those who hold less power or less competence than them. Just like similarity bias, there may be many biases present within individuals that are shaped through different types of personalities, life experiences, or learned behaviors. Negative selection can be one such bias which can have potential implications for corporate decisions. Since this phenomenon is observed in authoritarian regimes, it may be worthwhile to examine if managers and employees with an authoritarian personality may be more likely to display negative selection against others. A decision based on discrimination is never in favor of the greater good of an organization and can have devastating effects. This study opens avenues to study the psychological underpinnings of this phenomenon which can lead to biased and therefore, faulty decision making.

References.

- Accountability institutions, political capture, and selection into.* (2019). Voxdev.Org.
<https://voxdev.org/topic/institutions-political-economy/accountability-institutions-political-capture-and-selection-politics>
- Aguinis, H., & Bradley, K. J. (2014). Best Practice Recommendations for Designing and Implementing Experimental Vignette Methodology Studies. *Organizational Research Methods, 17*(4), 351–371. <https://doi.org/10.1177/1094428114547952>
- Bass, C. (1984). Type A behaviour in patients with chest pain: Test-retest reliability and psychometric correlates of Bortner scale. *Journal of Psychosomatic Research, 28*(4), 289–300. [https://doi.org/10.1016/0022-3999\(84\)90051-5](https://doi.org/10.1016/0022-3999(84)90051-5)
- Bush, S. D., Pelaez, N. J., Rudd, J. A., Stevens, M. T., Williams, K. S., Allen, D. E., & Tanner, K. D. (2006). On Hiring Science Faculty with Education Specialties for Your Science (Not Education) Department. *CBE—Life Sciences Education, 5*(4), 297–305. <https://doi.org/10.1187/cbe.06-09-0189>
- Byrne, D. *The Attraction Paradigm*. New York: Academic Press, 1971.
- Byrne, D., Clore, G. L., Griffitt, W., Lamberth, J., & Mitchell, H. E. (1973). When research paradigms converge: Confrontation or integration? *Journal of Personality and Social Psychology, 28*, 313-320.
- Clement, M. C. (2013). Hiring Good Colleagues: What You Need to Know about Interviewing New Teachers. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 86*(3), 99–102. <https://doi.org/10.1080/00098655.2013.769930>
- Cooper, C. L., & Davidson, M. J. (1983). The female manager—The pressures and the problems. *Long Range Planning, 16*(1), 10–14. [https://doi.org/10.1016/0024-6301\(83\)90130-9](https://doi.org/10.1016/0024-6301(83)90130-9)

- Deutsch, M. (1949). A Theory of Co-operation and Competition. *Human Relations*, 2(2), 129–152. <https://doi.org/10.1177/001872674900200204>
- Díaz A. B., Marín, J. Y. R., & Díaz, F. J. M. (2019). The irony of choice in recruitment: When similarity turns recruiters to other candidates. *M@n@gement*, 22(3), 466-486.
- Friedman, M., & Rosenman, R. H. (1986). Type A Behavior Pattern: Its Association with Coronary Heart Disease. *Holistic Medicine*, 1(1), 57–73.
<https://doi.org/10.3109/13561828609038119>
- Gatewood, R. D., Feild, H. S., Barrick, M. (2010). Human resource selection. Mason, OH: South-Western.
- Goldberg, C. B. 2005. Relational demography and similarity-attraction in interview assessments and subsequent offer decisions: Are we missing something? *Group & Organization Management*, 30: 597-624.
- Griffitt, W., & Jackson, T. (1970). Influence of Information about Ability and Non-Ability on Personnel Selection Decisions. *Psychological Reports*, 27(3), 959–962.
<https://doi.org/10.2466/pr0.1970.27.3.959>
- Jenkins C. D., Zyzanski S. J, Rosenman R. H. (1979). Jenkins Activity Survey manual, Psychological Corporation, New York.
- Jiang, C., Chua, R.Y.J., Kotabe, M. & Murray, J. (2011). Effects of Cultural Ethnicity, Firm Size, and Firm Age on Senior Executives' Trust in their Overseas Business Partners: Evidence from China. *Journal of International Business Studies*, 42 (9), 1150-1173.

- Johnson, D. W., & Johnson, S. (1972). The effects of attitude similarity, expectation of goal facilitation, and actual goal facilitation on interpersonal attraction. *Journal of Experimental Social Psychology*, 8, 197-206.
- Kaplan, D.M., Berkley, R.A. & Fisher, J.E. (2016). Applicant Identity Congruence in Selection Decision Making: Implications for Alejandro and Consuela. *Human Resource Management*, 55 (1), 39-51.
- Kendall-Taylor, A., Frantz, E., & Wright, J. (2017). The Global Rise of Personalized Politics: It's Not Just Dictators Anymore. *The Washington Quarterly*, 40(1), 7–19.
<https://doi.org/10.1080/0163660x.2017.1302735>
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: a meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58(2), 281–342.
<https://doi.org/10.1111/j.1744-6570.2005.00672.x>
- Lauriola, M., & Levin, I. P. (2001). Personality traits and risky decision-making in a controlled experimental task: an exploratory study. *Personality and Individual Differences*, 31(2), 215–226. [https://doi.org/10.1016/s0191-8869\(00\)00130-6](https://doi.org/10.1016/s0191-8869(00)00130-6)
- Lee, S. Y., Pitesa, M., Thau, S., & Pillutla, M. M. (2015). Discrimination in Selection Decisions: Integrating Stereotype Fit and Interdependence Theories. *Academy of Management Journal*, 58(3), 789–812. <https://doi.org/10.5465/amj.2013.0571>
- Martin, R., Kuiper, N., & Westra, H. (1989). Cognitive and affective components of the type a behavior pattern: Preliminary evidence for a self-worth contingency model. *Personality and Individual Differences*, 10(7), 771–784. [https://doi.org/10.1016/0191-8869\(89\)90124-4](https://doi.org/10.1016/0191-8869(89)90124-4)

- Matthews, K. A. (1982). Psychological perspectives on the Type A behaviour pattern. *Psychological Bulletin*, *91*(2), 293–323. <https://doi.org/10.1037/0033-2909.91.2.293>
- Morgan, G. P., & Carley, K. M. (2012). Comparing hiring strategies in a committee with similarity biases. *Computational and Mathematical Organization Theory*, *20*(1), 1–19. <https://doi.org/10.1007/s10588-012-9130-1>
- Orpen, C. (1984). Attitude Similarity, Attraction, and Decision-Making in the Employment Interview. *The Journal of Psychology*, *117*(1), 111–120. <https://doi.org/10.1080/00223980.1984.9923666>
- Roselius, W., & Kleiner, B. (2000). How to hire employees effectively. *Management Research News*, *23*(12), 17–23. <https://doi.org/10.1108/01409170010781993>
- Rosenberg, F. R., Rosenberg, M., & McCord, J. (1978). Self-esteem and delinquency. *Journal of Youth and Adolescence*, *7*(3), 279–294. <https://doi.org/10.1007/bf01537978>
- Rosenman, R.H. (1978) The Interview Method of Assessment of the Coronary-Prone Behavior Pattern. In: Dembroski T.M., Weiss S.M., Shields J.L., Haynes S.G., Feinleib M. (eds) Coronary-Prone Behavior. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-86007-2_4
- Rosenman, R.H., Chesney, M.A. (1980) The relationship of type A behavior pattern to coronary heart disease. *Activitas Nervosa Superior*. 1-45.
- Sanford, J. (2005). *Making cents out of the hiring process - Document - Gale Academic OneFile*.
- Selfhout, M., Denissen, J., Branje, S., & Meeus, W. (2009). In the eye of the beholder: perceived, actual, and peer-rated similarity in personality, communication, and friendship intensity during the acquaintanceship process. *Journal of Personality and Social Psychology*, *96*(6), 1152–65. <https://doi.org/10.1037/a0014468>

Shaw, W., & Dimsdale, J. (2007). Type A Personality, Type B Personality. *Encyclopedia of Stress*, 782–786. <https://doi.org/10.1016/b978-012373947-6.00383-4>

Streufert, S., & Streufert, S. C. (1968). Information load, time spent, and risk taking in complex decision making. *Psychonomic Science*, 13(6), 327–328.

<https://doi.org/10.3758/bf03342609>

Tabachnick, B.G. & Fidell, L.S. (2013). Using multivariate statistics (6th edition). Boston: Pearson Education.

Tajfel, H. & Turner, J.C. (1986). An Integrative Theory of Intergroup Conflict. In S. Worchel & W. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 2-24). Chicago, IL: Nelson-Hall.

Turnbull, H. (2016). The Illusion of Inclusion. Reed Business Education.

Weber, L., & Feintzeig, R. (2014, April 9). *Companies Say No to Having an HR Department*. WSJ.

Tjosvold, D., Wu, P., & Chen, Y. F. (2010). The Effects of Collectivistic and Individualistic Values on Conflict and Decision Making: An Experiment in China. *Journal of Applied Social Psychology*, 40(11), 2904–2926. <https://doi.org/10.1111/j.1559-1816.2010.00686.x>

Appendix.

This section contains the vignettes used in the study and the questions that were asked to the participants for assessing their selection decision. Finally, it contains the items from the Bortner type A rating scale.

Noncompetitive environment:

Below is a description of an organisation called Applico. We want you to imagine working for Applico. Please take time to really put yourself in this type of context:

“Applico is a cool and dynamic place, it’s not all about winning. In fact, we often say, winning is not always the first thing. Here, it is much more important to have integrity in your dealings with others than to have power or money. So, what counts most in this company is integrity and honesty, it is regarded as the best policy in all cases. Also, managers treat us not as inferiors but as fellow workers and treat us with lots of kindness and consideration. So, all in all, it is much about cooperation, helping and sharing, and not about competition”.

Competitive environment:

Below is a description of an organisation called Applico. We want you to imagine working for Applico. Please take time to really put yourself in this type of context:

“It's all about winning at Applico. We often say: Winning is not the first thing, it’s the only thing! People here realize that it’s kind of a dog-eat-dog world where you have to be ruthless at times. So, if you have the power, you are encouraged to use it to reach your goals, even if it

means acting cold-bloodedly. Also, it is totally okay to strive for high financial rewards and big deals because after all, they all know that money and wealth are what really counts in life.”

Employee role:

Now, please imagine that you are **an employee** of Applico.

Applico is currently in the process of hiring a new staff member.

As an employee, you have been asked to participate in the recruitment process and help **select the person who will work with you directly.**

Candidate options:

The selection process reached the final round, and three excellent candidates remain who are all equally suitable for the job. You have the following information about these candidates:

Candidate 1: This applicant is very intelligent and is also very friendly. Additionally, this candidate comes across as ambitious and decisive. During the interviews you noticed that this candidate seems to be less competitive than you.

Candidate 2: This applicant is very smart and is also very approachable. Moreover, this candidate seems determined and assertive. During the interviews you noticed that this candidate seems to be as competitive as you.

Candidate 3: This applicant is very clever and appears to be very sociable. Also, this candidate appears to be goal-oriented and bold. During the interviews you noticed that this candidate seems to be more competitive than you.

Questions

Which candidate would you be most likely to select?

- Candidate 1
- Candidate 2
- Candidate 3

Manipulation check:

How competitive is the climate at Applico?

- Not at all competitive
- Not so competitive
- Not competitive or uncompetitive
- Somewhat competitive
- Extremely competitive

My role in Applico is:

- An employee
- A hiring manager
- I don't know

Attention check:

The current workforce consists mostly of individuals older than 18. To measure attention, please answer “Strongly disagree” here.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Bortner Type A personality scale:

Below are some descriptions of behavior that are arranged as if on a dimension. Please choose the number that you feel most closely represents your own behavior.

Never late	5	4	3	2	1	0	1	2	3	4	5	Casual about appointments.
Very competitive	5	4	3	2	1	0	1	2	3	4	5	Not competitive
Always rushed.	5	4	3	2	1	0	1	2	3	4	5	Never feels rushed
Tries to do many things at once	5	4	3	2	1	0	1	2	3	4	5	Takes things one at a time.
Fast (eating, walking, etc.)	5	4	3	2	1	0	1	2	3	4	5	Slow doing things
Expresses feelings	5	4	3	2	1	0	1	2	3	4	5	Hides feelings
Fewer outside interests	5	4	3	2	1	0	1	2	3	4	5	Many outside interests.
