Minority perception of exclusion and promotion hurdles

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HIGHLIGHTS

- Minority perception of social exclusion can lead to promotion hurdle.
- The principal can always elicit more effort from the majority candidate.
- Minority candidate is only promoted if she has a sufficiently superior track record.

ARTICLE INFO

ABSTRACT

This paper describes a model in which, due to social exclusion, a minority candidate perceives her track record to be a less precise indicator of her suitability for promotion. These beliefs imply that the minority candidate is disadvantaged in providing effort and can only be promoted if she can make up for the effort gap with a sufficiently superior track record than the majority candidate.

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1. Introduction

The severe underrepresentation of women and minorities at top level positions in corporations and other workplace environments remains a persisting phenomenon.[1] A study in 2005 by Novations, a professional-skills training and consulting firm, concludes that there is a general feeling among women and people of color that (i) unless they possess undeniably superior track records, their chances of advancement to top positions are rather slim, and (ii) they are excluded from social networks within the organization with little access to personal connections and mentoring.[2]

The observation that minority employees and women are at a disadvantage when it comes to networking is supported by a variety of sources in the sociology and psychology literatures that cite mentoring within an organization as a key source of information for the challenges in upper level positions.[3] The common theme in these studies is that the structure of social networks within the organization does depend on gender and race, and hence minority and women employees do feel as "outsiders" without much access to information on the "real rules for promotion".[4]

This paper offers a simple theoretical model to show that the minority feeling of social exclusion might itself be a reason why minority candidates with superior track records are passed over during promotion. Simply put, perception of exclusion alone can make promotion more difficult for minorities. The model features a

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[1] A 2013 biennial survey from Columbia Business School and the Women's Executive Circle of New York, found that women held 40 of 367 executive positions in the state's top 100 public companies by revenue in 2012, or 10.9%—down from 11.7% in 2010 and 11.9% in 2006, when the survey began. Of the 100 companies, 68 had no women serving in top executive roles. See the Wall Street Journal article "Women See Slow Progress In Leadership" by Mara Gay on November 14, 2013.

[2] See the report "The State of the Organization: Diversity and Inclusion in the New Millennium" in 2005 by Boston-based consulting firm Novations.

[3] See Noe (1988), Morrison and Von Glinow (1990) and Ibarra (1992).

[4] Athey et al. (2000) also argue that mentoring may be more natural and effective when people share common interests, cultural experiences or when employees have significant social interactions outside the workplace.

principal who belongs to a majority group. The principal considers two candidates, one from the majority group and the other from a minority group, for promotion to an upper level position. The performance in the upper level task depends on (i) the promoted candidate's unobservable effort, (ii) a common technology shock, and (iii) the candidate's unknown ability for the upper level task that I refer to as the candidate's *suitability for promotion*. All parties initially have the same common prior beliefs on each candidate's unknown suitability for promotion.

Before the promotion decision, all parties publicly observe the candidates' past track records in the organization, which serve as an information signals on candidates' suitability for promotion. The innovation in the model is that, depending on their group identities, the three parties have heterogeneous beliefs about the informativeness of the respective track records. The minority candidate perceives her track record to be less informative, capturing the idea that the minority candidate's social exclusion results in her perceiving available information as noisier.[5]

The analysis illustrates that when the minority candidate treats her track record as less informative on her suitability for promotion, the principal can always elicit more post-promotion effort from the majority candidate. This "effort gap" between the candidates arises solely due to the minority candidate's *belief* of having less precise information. The minority candidate can only be promoted if she can make up for this effort gap by having a sufficiently superior track record than the majority candidate. The novel contribution of this paper is to emphasize how poor access to social networks within the organization can make it harder for minority candidates to filter out available information and how, as a result of this perception of having less precise information, minority candidates face a track record hurdle in job advancement. The paper also relates the extent of the hurdle to the severity of the underlying agency problem, and shows that the hurdle is decreasing in the degree of technological uncertainty common to both candidates.

My main focus is to provide a rationale on why minority candidates with superior track records may end up not being promoted. This focus relates the paper to the *statistical discrimination literature*, but there are important differences. As Moro (2009) describes in an excellent short survey, the standard statistical discrimination framework starting with Phelps (1972) and Arrow (1973) has a decision maker/principal who (i) has incomplete information about some outcome-relevant individual characteristic, and (ii) has asymmetric beliefs regarding the average values of relevant variables across groups. The principal using asymmetric beliefs on group averages for statistical inference seem to be a less relevant assumption when an employee has been with the firm for a long period of time. What seems rather more relevant for promotion decisions is the asymmetric access of employees from different groups to social networks and mentoring and hence their consequent asymmetric abilities to filter out the information available to them, which is my focus.

The model has the following specific differences from the statistical discrimination framework. First, the principal here perceives the track records of both candidates as equally informative on the candidates' suitability for promotion. Second, it is the candidates who have asymmetric beliefs about the precision of available information due to their asymmetric access to social networks and

mentoring, an issue that largely remains unaddressed in the literature.[6] This novelty alone, however, is not sufficient to generate a hurdle against the minority candidate. The third departure is the principal's effort inducement problem, a feature also not considered in the statistical discrimination literature. The hurdle arises due to the impact of the two candidates' asymmetric beliefs on the principal's effort inducement problem.[7]

2. The model

The model features a principal who considers two candidates (Candidates A and B) for promotion to an upper level position. Only one of the two candidates can be promoted. The principal and Candidate A are both members of the majority group, whereas Candidate B is a minority.[8]

Technology: The output technology is adopted from the additive-normal framework of Holmstrom (1999). If promoted, candidate $j \in \{A, B\}$ expends costly effort $e_j \geq 0$ to produce an observable stochastic output $\tilde{x}_j$ described by

$$\tilde{x}_j = e_j + \tilde{\theta}_j + \tilde{\varepsilon}. \tag{1}$$

In this specification, $\tilde{\varepsilon}$ is a common technology shock and $\tilde{\theta}_j$ is the suitability of candidate j's skill set for the upper level position. Depending on the particular context, different interpretations for $\tilde{\theta}_j$ are possible. For example, if the upper level position involves a managerial task to organize a new department within the organization, then $\tilde{\theta}_j$ can be interpreted as the candidate's organizational skills to perform this task. If the promotion is for an executive position, then $\tilde{\theta}_j$ can be thought of as the candidate's leadership skills, etc. In what follows, for the sake of concreteness I simply refer to $\tilde{\theta}_j$ as the candidate j's suitability for promotion. I employ the standard normality assumptions and assume that

$$\tilde{\varepsilon} \sim N(0, \Sigma) \quad \text{and} \quad \tilde{\theta}_j \sim N(\bar{\theta}, \kappa^{-1}). \tag{2}$$

Hence, the prior distribution of $\tilde{\theta}_j$ is the same for both candidates. For simplicity, I set the prior mean $\bar{\theta} = 0$. A candidate's suitability for promotion $\tilde{\theta}_j$ is unknown by all parties, including candidate $j \in \{A, B\}$. Furthermore, the random variables $\tilde{\varepsilon}$ and $\tilde{\theta}_j$ are assumed to be independent. Both candidates have the same cost of effort described by the functional form $c(e_j) = e_j^2/2$ for $j \in \{A, B\}$. Since the effort choice e_j is not observable, the principal can only provide effort incentives by tying the promoted candidate's compensation to the observable output.

Compensation Contract: I follow the standard CARA-normal agency model and restrict attention to linear compensation schemes. If candidate $j \in \{A, B\}$ is promoted, the principal offers that candidate a linear contract $f_j + q_j x_j$ where f_j is a fixed payment and q_j is the candidate's share of output. Both candidates have the same CARA preferences described by $U(\tilde{w}_j) \equiv -\exp(-a\tilde{w}_j)$ over

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[5] It is entirely valid to argue that the minority candidate's lack of social access is typically the result of explicit biases and discriminatory behavior that also affect the promotion decisions in favor of majority candidates. In this paper, my focus is the effect of social exclusion on the beliefs of minority candidates and how these beliefs affect the promotion decision in an agency framework *in the absence of such explicit biases*.

[6] To the best of my knowledge, the only other paper that addresses the impact of mentoring on promotion policies and diversity is the work by Athey et al. (2000). Their model and the issues they focus, however, are quite different from this paper. While they consider human capital investment decisions of employees given the quality of mentoring they receive, this paper focuses on how social exclusion determines beliefs for different groups on the quality of available information and how these heterogeneous beliefs have an impact on the promotion decision.

[7] In other related work, Fryer (2007) and Bjerk (2008) present dynamic models of statistical discrimination in promotion, but do not consider the implications of minority social exclusion in an agency framework.

[8] These groups can be related to ethnic, cultural or gender differences. For ease of reference, I refer to the majority candidate as "he" and the minority candidate as "she".