The Imperfect Legitimation of Inequality in Internal Labor Markets

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This study addresses whether employees believe that advancement is based on merit in two non-unionized, high technology companies that have formal merit-based performance evaluation and promotion procedures. One reason companies use the language and logic of meritocracy is to encourage employees to work harder in the expectation of greater rewards. An implication of merit-based procedures – indeed their very intent according to critical theorists (e.g., Edwards, 1979) – is that inequality is legitimated. That is, employees may believe that merit counts for advancement and that inequality is based fairly on differences in merit. Employees' shared belief in the rationality of "impersonal," merit-based governance procedures been invoked by institutional economists to explain reduced turnover in internal labor markets (e.g., Doeringer & Piore, 1971) and by sociologists to explain employee cooptation and the general lack of employee dissent (e.g., Edwards, 1979). This paper theoretically challenges and empirically investigates this often-invoked notion. I argue, instead, that beliefs about merit vary by how employees fare in an organization's advancement contest. Those in lower positions, or those with lower mobility rates, or both are less likely to believe that merit counts in their firm, whether from a savvy born of personal experience or from a need to make self-enhancing attributions. In some fashion, they cope with the judgment implicitly cast upon lower performers in a putative meritocracy and deny the claims that merit counts. Upon brief reflection, an argument that the less successful doubt the role of merit is hardly surprising. However, this simple alternative view has been theoretically overshadowed by overdetermined accounts of socialization and cooptation. This view has not been empirically investigated, specifically in a workplace setting where questions can be addressed about whether it is position or upward mobility, quite different dimensions of stratification, that correlates with the extent of belief in merit. Finally, this view has not been incorporated into new kinds of economic and sociological theories about the employment relationship,, which might look different they if took seriously the possibility that a fair number of employees do not believe the legitimating claims that are supposed to be the ideological glue of the employment relationship.

The term "meritocracy" was a satirical invention of Young (1958) in his fable of the hidden negative consequences of a rigidly merit-based society. It has since been applied, somewhat more soberly, to late capitalist systems of status and reward allocation, usually to distinguish them favorably from class-based or aristocratic systems, in which family origin and unearned advantages determine occupations and incomes (Bell, 1972, 1976). There is a long sociological tradition, which is the backdrop to this study, of examining whether variance in occupations and incomes is attributable to merits or to class background. Merit variables usually include education, test scores, and the kinds of human capital variables that economists would use in wage equations. Jencks and colleagues (1972) argue that it is difficult to find "pure" merit variables, since most of the measurable ones are already influenced by privileged family backgrounds and variables like marginal productivity are too hard to measure. In the sociological equations, the merit variables are contrasted to class variables, like parents' occupations and family income, and also to ascriptive variables (race and sex), often with the liberal agenda of demonstrating that class, race, and sex continue to count too much and correctives policies are needed. Alongside this descriptive research, sociologists also conducted surveys to see what variables individuals believed to be important in determining occupation and income in the United States. Beliefs are of interest, in addition to, and even irrespective of, what the equations show. In general, national studies of beliefs (e.g., Huber & Form, 973; Kluegel & Smith, 1986; Schlozman & Verba, 1978) found strong endorsement (about two-thirds of respondents) that merits like hard work and ability determine individual outcomes. Theoretical attention was directed to the formidable effectiveness of meritocratic ideology as a legitimating ideology.

Researchers studying status and reward allocation have turned their attention to the features of an organization that may help explain why individuals with similar traits realize different returns to those traits. For example, the structure of job openings affects whether individuals are promoted (e.g., Mittman, 1986; Stewman & Konda, 1984; White, 1970). The study of what individuals believe to be the causes of inequality should similarly shift from the national level to the organizational level. National level studies of beliefs about inequality, despite giving the overall impression of consensus, do find variance in beliefs about the role of merit, as Mann (1970) suggests. Moreover, they find

variance within the upper-class, within the middle class, and within the working class. Some of this variance may arise because individuals have different local experiences in the advancement contest in their organizations. For example, some members of the working class are promoted from assembler to technician, but some are not; the former may be stronger believers in the role of merit. Including information about the individual's experience of being promoted or not, by conducting a study of beliefs within an organizational context, might help explain variance in beliefs that would otherwise be unaccounted for in national surveys. This study begins this important move from the national to the organizational level in the area of beliefs about meritocracy.

Certainly there have been numerous studies of individual attitudes that have been conducted within organizations. Studies of satisfaction and commitment often include questions about satisfaction with promotions and willingness to work hard. However, these studies treat individuals views about hard work and rewards as neutral, atomistic calculations, relevant within the firm as a motivation problem. They do not connect with the broader stream of research on meritocracy. The broader social and political implications of employees' beliefs about whether merits are rewarded must be taken into account and give a much greater significance to findings about employees' beliefs about meritocratic claims. These findings reveal not just the likelihood of employees' exerting effort, but more fundamentally, they reveal the extent to which a firm derives some normative legitimacy from practices rooted in the widespread cultural appeals to meritocracy in the society at large. This study examines employees' beliefs about merit from this standpoint. As such, findings that employees' beliefs vary by how they are doing in the firm suggest not only that new procedures may have to be explored by the firm to bring people normatively on board, as argued from the procedural justice perspective. They also suggest that the sense-making schemes that individuals employ in committing to a firm and coping with inequality either leave the firm vulnerable to legitimacy challenges or must be understood as involving more complexity and ambivalence than binary accounts of legitimation / delegitimation have tended to allow.

One possible finding is that there will be very little variance in employees' beliefs about merit. People in the higher positions in organizations should believe that merit counts, since they may

interpret their own experience as one of meritocratic ascent and since it bolsters their position; that the people in the highest positions should promulgate self-reflective and even self-serving ideologies has been argued for some time in social theory (e.g., Marx & Engels, 1978: 64; Weber, 1971:956). The sociological literature on the legitimation of inequality[1] suggests that one of the "hidden injuries of class" (Sennett & Cobb, 1972) is the tendency of people in lower positions to go along with this dominant view, accept meritocratic ideology, and blame themselves and their inferior merits for their lower position. As Mann argues, inequality is legitimated when people believe that "success comes to those whose energies and abilities deserve it, failures have only themselves to blame" (1970:427).

The literature on organizational culture and commitment suggests that employees may be socialized to believe the frequent articulations of the meritocratic ideal in organizations that use merit-based procedures. Organizational culture research documents corporate versions of the rags-to-riches story (e.g., Martin, Sitkin, Feldman & Hatch, 1983). The rationales given by management for the choice of who is promoted or not emphasize individual traits and merits, rather than the structural constraints identified by researchers mentioned above, in order to maintain the "myth" of the rationality of the promotion system, sustain its motivational potential, and bolster the authority of those chosen by this system (Salancik, 1977; Pondy et al., 1982). Theories of institutionalization (e.g., Meyer & Rowan, 1978) also add to a portrait of employees who would take for granted practices like merit-based performance evaluations. Taken together, organizational theories can easily build a case that little variance in beliefs about merit should be found.

Alternatively, recent sociological writing on the experience of work and social psychological work on attributions point to the likeliness of finding variance. These two literatures are considered in turn. There is a growing body of research that describes a working class whose members are aware

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[1]Della Fave (1980:955) defines legitimation as follows, drawing on definitions employed in previous work on inequality (Alves & Rossi, 1978; Jasso & Rossi, 1980; Rainwater, 1974): "Legitimation refers to a belief on the part of a large majority of the populace that institutionalized inequality in the distribution of primary resources (Rawls, 1971) – such as power, wealth, and prestige – is essentially right and reasonable." The claim that inequality is meritocratic, and particularly that hard work and ability lead to success, is one specific contemporary form of the legitimation of inequality (e.g., Althusser, 1969; Giddens, 1973; Huber & Form, 1973; Mann, 1971; Marx & Engels, 1846; Miliband, 1969; Mills, 1969; Schlozman & Verba, 1978).

of their own interests and not easily coöpted by a dominant ideology that is not corroborated by their own experiences. Some examples include Mann (1970) on dissensus, Larkwood and others (1975) on experience-based differences in working class images of society, Willis (1981) on the dissident values of British working class youths, Scully (1982) on the intact self-esteem of high schoolers sorted into the lowest tracks, Sabel (1982) on how the working class is well aware of its role in power struggles over the division of labor in the workplace, MacLeod (1984) on how Boston area youths do not necessarily believe claims that hard work leads to success, Scott (1985) on everyday forms of ideological struggles by the peasantry against the powerful, Thomas (1989) on how research on careers as orderly upward progressions does not apply to the lived experience of blue collar workers, and Gamson (forthcoming) on the complexity and nuance, which should not be surprising, in the belief systems of members of the working class on issues such as inequality and affirmative action.

The social psychological literature on attributions about success and failure predicts that successful people make self-enhancing attributions (e.g., appeal to internal traits), while less successful people make self-protecting attributions (e.g., appeal to external constraints and biases) (e.g., Seligman et al., 1979; Weiner et al., 1972). The "fundamental attribution error" (Jones & Nisbett, 1971), though no longer regarded as universal or fundamental (Murphy & Cleveland, 1991), describes a common pattern whereby individuals attribute their own successes to internal factors (such as ability or hard work) and their failures to external causes (such as structural constraints or luck). Research on self-serving biases in attribution (Gioia & Sims, 1985; Mitchell, Green & Wood, 1981; Miller & Ross, 1975) can be applied to the performance evaluation process (Murphy & Cleveland, 1991). The implication of this long-accepted social psychological style of sense-making for understanding the legitimation of inequality have not been drawn by social psychologists. The implication is that meritocratic ideology is likely to fail in legitimating inequality to the less successful inasmuch as it depends upon their blaming themselves and not employing self-protecting cognitions.

Hypotheses

Sociologists have pointed to multiple and competing systems of stratification within and outside organizations (Granovetter & Tilly, 1986). Organizations have a distribution of positions, of performance evaluations, of degree of return on human capital, and of mobility rates. This study considers whether how an individual is doing in any or all of these various local mobility contests relates to their beliefs about how much merit counts.

Beliefs about how much merit counts are operationalized by by having employees rate how much (on a 7-point scale) they believe each of five items counts for advancement: hard work, ability, performance, privilege, and luck. These items are considered in numerous national level studies of what individuals believe does and ought to affect occupation and income in the United States (e.g., Coleman & Rainwater, 1978; Huber & Form, 1973; Kluegel & Smith, 1986; Mann, 1970; Schlozman & Verba, 1978). An employee who believes that the firm is meritocratic would rate ability, hard work, and performance as very important determinants of who gets ahead in the firm, and rate coming from a privileged background and luck as not important. Though the expected pattern of relationships is the same for the five variables in the hypotheses below, they are treated as five separate dependent variables in this study. The items are different enough (e.g., ability may be a fixed input, hard work may be a variable input, and performance is an output) that they might not form a conceptually nor empirically sound scale. In addition, as a first study of these variables, it makes sense not to aggregate variables, but to take a more "open" look at the data and uncover unexpected differences (Bailyn, 1977).

Hypotheses 1 to 4 relate success in terms of position, performance evaluation, return on human capital, and mobility to beliefs about merit. Hypotheses 5 to 8 address other aspects of employee's experience in the advancement contest: their recent lateral mobility, whether they have crossed a "class boundary" from hourly to salaried, whether they are a manager, and their tenure. Hypotheses 9 and 10 consider employees perceptions of their advancement, and Hypothesis 11 posits a possible sex difference.

Success in the firm's advancement contests

1. Position in the organizational hierarchy. Position may represent the ultimate attainment of success in the firm, even if individuals socially construct alternative and local indicators. The best rewards and the largest allocation of scarce societal resources attach to the highest positions. A person exports the rewards of organizational position – from a paycheck to social esteem – into the larger society. Locally constructed indicators of success (e.g., best assembler) do not export as well.[2] Job ladders and bureaucratic hierarchies have long implied a ranking of employees by merit, such that the most meritorious employees are at the top (Weber, 1946a). In a world where rank has this connotation, it is self-enhancing for people in higher positions to believe in meritocracy and to attribute their position to their merit (and also, to deny the role of non-merit factors, such as class background or luck). Similarly, it is self-enhancing for people in lower positions to downplay the role of merit and cite the role of non-merit factors.

Hypothesis 1. The higher the employee's position in the firm, the more strongly he or she believes:
- *that hard work counts for getting ahead.*
- *that ability counts for getting ahead.*
- *that performance counts for getting ahead.*
- *that coming from a privileged background does not count for getting ahead.*
- *that luck does not count for getting ahead.*

If beliefs about meritocracy do map onto position, one might expect a crisis of legitimacy in the organization and a demand from people in lower positions that people in higher positions turn over some of their "unearned" rewards. Variance in beliefs by position looks like a class-stratified belief system. However, internal labor markets, particularly narrowly defined jobs arranged in ladders, may constrain people's social comparisons, focus people's aspirations on local upward mobility, and mask vast differences in position and attendant rewards, thus preventing (intentionally or incidentally) a class-stratified belief system and the discontent it might engender.

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[2]Discussions of inequality take many forms, but at their basis, the interesting issue is the gap between those in the highest and lowest positions. It is good not to lose sight of the fact that the highest position is the highest reward, even in the process of discussing how participants in the social system may be satisfied by other, compensatory successes, like climbing lower rungs of the ladder or receivina good performance evaluation within their job grade.

2. Upward mobility. Absolute position may not matter as much to individuals as their success or failure in improving their position in the hierarchy via upward mobility. For individuals in organizations, their mobility rate may be the more salient reward in the status attainment contest than their absolute position. Movement upward connotes success in the competition for increased rewards and status, particularly in an internal labor market where insiders compete to fill openings at higher levels. The words of one employee I interviewed for this study typify this view: "It's not where you are but where you're going that counts."

The data for this study, discussed below in the Methods section, show three ways in which upward mobility might be operationalized. First, there is an employee's mobility rate (number of levels of the hierarchy transcended divided by years of tenure), which captures the speed with which the person advances and controls for differences in tenure (so that a fast-moving newcomer has a higher rate than a slow, steady incumbent). Second, there is simply the absolute number of levels the employee has advanced. Rates of movement may have different meanings in different areas of the company and may depend in part on when openings arise, so it may be worth looking at the absolute ascent without the correction for rate. Third, people may be more attuned to their mobility rate relative to social comparison referents in their immediate occupational area. Each person's mobility rate can be standardized (to correct for the mean and standard deviation of their group) to see if such a normed measure proves to be more useful for understanding variance in beliefs about merit.

Hypothesis 2. The greater an employee's upward mobility, the more strongly he or she believes:
- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

3. Relative return on education and tenure. This variable is another indicator of success or failure in terms of specific social comparison referents. Individuals bring different amounts of education, their starting human capital, to the firm.[3] Individuals may not expect to do as well as those

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[3]Other studies have addressed whether education itself is distributed meritocratically or not. The firm inherits already educated individuals, and personnel managers sometimes take pains to argue that they and the firm are not in a position to correct for past inequalities of opportunity.

who bring more capital, in the form of education or years of experience, to the advancement contest, but do expect to do as well as similar others. For example, a person with a high school diploma may not expect to become Vice President (despite popular Horatio Alger stories about such meteoric rises), but he or she should expect to become Lead Technician if others with a high school degree have done so. a return on education and tenure that is relatively too low should make an individual believe less strongly that merit guides advancement.

Hypothesis 3. The greater an employee's return on education and tenure, the more strongly he or she believes:

- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

This measure comes closest to capturing individual's "actual" merits, but also reveals just how difficult it is to answer the question of whether the companies in this study "really are" meritocracies, for lack of good measures of merit.

4. Performance evaluation. The performance evaluation process is what most directly pits individuals in the same job area against one another and assigns relative winners and losers. Employees' sense of how well they are doing might be tightly tied to their recent performance evaluation and may relate to whether they attribute success in the firm to merit or to non-merit factors like privilege and luck. Employees know their performance evaluation (often a number from 1 to 5) in a way they may not know their exact mobility rate or their relative return on human capital (these latter two variables are constructed by researchers), so it may prove to be the best measure for understanding beliefs about merit.

Hypothesis 4. The higher an employee's last performance evaluation rating, the more strongly he or she believes:

- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

Other advancement experiences in the firm

5. Lateral moves (recent). Lateral moves can create a sense of movement, perhaps whether or not the individual is making real headway up the vertical ladder of the organization. DiPrete (1987) found that job ladders represent idealized routes of movement, but in practice, lateral moves between ladders are as frequent and can improve career prospects. Lateral moves are not captured in the mobility variables discussed so far, which chart only movement up hierarchical levels of the pay scale. Recent lateral moves (within the past three years) are the ones that still hold the promise of converting into upward mobility opportunities (whereas this promise for lateral moves of several years ago may have expired).

Hypothesis 5. The greater the number of lateral moves an employee has made(in the past three years), the more strongly he or she should believe:

- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

6. Crossing a class boundary. Internal labor markets often have multiple ports of entry. Hourly workers and salaried workers enter at different starting pay grades. For example, engineers start at the bottom of the engineering ladder, which is already higher than the top rung of the ladder for hourly production and technical workers. It is difficult for hourly workers to cross the boundary to salaried worker. Essentially, they face a ceiling on their mobility prospects. DiPrete and Soule (1988) found that crossing a boundary from the lower to upper tiers of the civil service was a significant moment in a career history and the greatest source of disadvantage for women. For those who have crossed this particularly salient boundary, this single event, irrespective of other indicators of mobility, may condition strongly their sense of success.

Hypothesis 6. If an individual has crossed the boundary from hourly to salaried, he or she should believe more strongly:

- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

7. Being a manager. Whether the employee is a manager might influence beliefs. A definitive aspect of being a manager is having to conduct performance evaluations, which might make a person defend the practice, if mostly for the authority it confers (Dornbusch & Scott, 1975). Following Pfeffer's (1981) argument, people in managerial positions in the organization manage the organizational symbols, some of which symbolize that the firm is meritocratic; managers become more likely themselves to be persuaded by these symbols.

Hypothesis 7. Managers should believe more strongly:
- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

8. Tenure in the firm. Predictions about the role of tenure in understanding beliefs may be tinged by researchers' prior on whether firms tend to be meritocratic. If one believes that the firm is basically meritocratic, despite occasional, local deviations, then one would predict that employees would begin to see this pattern emerge after longer tenure and predict a *positive* relationship between tenure and belief that the firm is meritocratic. Conversely, if one believes that the firm is basically not meritocratic, predictions about tenure would stem from a chronicle of how the employee initially gives the firm the benefit of the doubt when seeing deviations from merit criteria, but eventually becomes disillusioned at the repetition of such deviations. The latter account suggests a *negative* relationship between tenure and belief that the firm is meritocratic emerges. Hypothesis 8 is based on this second view, since reviews of performance evaluation practices suggest it is extremely difficult for firms to find and consistently use unbiased measures of merit. Of course, a third possibility is that individual employees have different experiences of gradual confirmation or disconfirmation that merit applies as they remain with a firm, and thus no significant effect in one direction or the other emerges for tenure.

Hypothesis 8. The longer an employee's tenure in the firm, the weaker his or her belief:
- *o that hard work counts for getting ahead.*
- *o that ability counts for getting ahead.*
- *o that performance counts for getting ahead.*
- *o that coming from a privileged background does not count for getting ahead.*
- *o that luck does not count for getting ahead.*

Perceptions of advancement

9. Perceived relative mobility. Individuals' actual mobility is measured above. However, as mentioned, they may not know their mobility rate or believe it to be something different. Their perceived advancement may, therefore, relate more strongly to their beliefs about merit.

Hypothesis 9. The better an employee perceived his or her mobility to be, the more strongly he or she believes:

- *that hard work counts for getting ahead.*
- *that ability counts for getting ahead.*
- *that performance counts for getting ahead.*
- *that coming from a privileged background does not count for getting ahead.*
- *that luck does not count for getting ahead.*

10. Disappointment about performance evaluation. Some employees who receive a low performance evaluation may accept that their it reflects their lesser merits and believe that the firm is a meritocracy, even if it is one in which they are doing less well. Other employees may be disappointed that their performance evaluation should have been higher. This discrepancy may relate negatively to the belief that merit counts.

Hypothesis 10. The greater the discrepancy between the performance evaluation an employee felt he or she deserved and the actual performance evaluation received (i.e., the greater the disappointment), the weaker his or her belief:

- *that hard work counts for getting ahead.*
- *that ability counts for getting ahead.*
- *that performance counts for getting ahead.*
- *that coming from a privileged background does not count for getting ahead.*
- *that luck does not count for getting ahead.*

Demographics and controls

11. Sex. The tendency to make self-enhancing attributions may differ by sex. Research on the socialization of girls and women suggests that women are more likely to internalize others' evaluations of them and to accept blame when they receive poor ratings (e.g., Dweck, Davidson, Nelson, & Enna, 1978; Dweck & Goetz, 1978). Therefore, women, irrespective of position, may be more likely to believe in meritocratic ideology, an exploratory prediction that this study examines.

Hypothesis 11. Female employees will believe more strongly:

- *that hard work counts for getting ahead.*
- *that ability counts for getting ahead.*
- *that performance counts for getting ahead.*
- *that coming from a privileged background does not count for getting ahead.*
- *that luck does not count for getting ahead.*

Occupational and firm controls. This study examines mechanisms that work at the individual level and makes no *a priori* predictions about firm or occupation effects.

Table 1 (all tables appear at the end of this working paper) summarizes the hypotheses.

Method

Survey design

I developed and administered a questionnaire to measure the preceding variables. The survey includes attitudinal variables measured using 7-point Likert-type scales.[4] For the five dependent variables, respondents answered questions about how much the thought each item (hard work, ability, performance, privilege, and luck) counted for advancement in the firm. (The scale used was: 1=does not count, 7=counts very much. A pretest, involving eight respondents not from the companies and four from one of the companies, indicated that wording 1 as "does not count very much" truncated some of the variance, since "does not count at all" was perceived to be the other endpoint.) Perceived advancement was also measured using a 7-point scale (1=have not advanced at all, 7=have advanced very much). For the other "perception" variable, employees were asked what performance evaluation they thought they deserved.

The other variables were calculated from information each employee provided about their employment history, including their most recent performance evaluation (1=low, 5=high), start date at the company, starting position in the company, and current position, from which tenure and mobility can be calculated. They also supplied the job titles they had for the three years preceding the current year. The number of recent lateral moves was constructed from this information (it ranges from 0 to 4). From their starting and current positions, I could calculated whether they had "crossed

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[4]Caution is certainly warranted in using ordinal variables as dependent variables, even though this usage has a long history in the social sciences. I was concerned that coefficients might understate the relationship, particularly of issue in interpreting whether position is not significant. Subsequent to the analyses reported herein, I recoded the dependent variables (0= 1,2,3,4 and 1 = 5,6,7) and performed logistic regressions. The pattern of results was the same, and position was not significant (nor was it significant when position itself was recoded into fewer categories).

a class boundary" from hourly (non-exempt) to salaried (exempt); my interviews revealed that this passage was particularly prized at these companies.

Though employees supplied the input data, the actual measures (of mobility, lateral moves, etc.) are calculated by the researcher, and as such, these can be considered "quasi-objective" measures. The inclusion of such measures mitigates concern about common method variance (i.e., inflated coefficients likely when independent and dependent variables are both attitudinal measures obtained from the same instrument) (Spector, 1987). Common method variance must be kept in mind, however, for the relationship between perceived advancement and beliefs about merit (even though these questions were asked several pages apart on the survey).

Selection of two companies

The study of employees' beliefs about merit is most relevant for companies that have two features of internal labor markets: merit-based promotion systems that are part of the governance structure and promotion from within. Promotion contests "are used as the primary incentive device in most organizations" (Baker, Jensen & Murphy, 1988:600) for a number of reasons. Internal labor markets can use different criteria – such as merit, need, or seniority – for the determination of who will move up the organizational ladder.[5] Lawler (1971:158) documents "many companies' very frequent claims that their pay systems are based on merit," despite, he continues, evidence from several studies of a low correlation between pay and performance. More recently, Murphy and Cleveland (1991) suggest that 90% of private organizations use some form of formal performance evaluation. Promotions are ideally supposed to allow firms to match individuals with jobs for which they are well-suited, although this matching may involve occasional or even systematic errors (Baker, Jensen & Murphy, 1988; Sorenson & Kalleberg, 1981).

The two firms that were selected for this study (of twelve firms approached) matched on a

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[5]Of course, sweatshops and establishments in the periphery of the economy may make no pretense of offering merit-based or other criteria; they simply offer work and pay, particularly to unskilled workers who may have no other choices.

number of important characteristics, including: both are in the same industry (high technology), have at least 500 employees and are at least 15 years old (so the job paths are stable), are not unionized (which makes it more likely that merit rather than seniority is the formally espoused basis for promotion (Freeman (1982)), conduct regular performance evaluations in part to identify candidates for promotion from within, and have multiple levels of blue- and white-collar job grades.

As I learned more about the two firms, I found that they did not match on one characteristic of potential interest for this study. Company A uses a forced normal distribution of performance ratings. Because of this practice, I expect a steeper relationship at Company A between performance evaluation and belief that merit counts. Where a forced normal distribution is used, people might value high ratings more strongly (because they have more value where there is no rating inflation and high ratings are scarce), but not take seriously lower ratings (because they are artifactual of the constraint on managers to fill the bottom categories). Thus, those who get the best ratings have all the more reason to attribute them to merit, and those who get the lowest ratings have more reason to attribute them to lack of merit. If this dynamic is at work, the interaction term that I will add to the equations (Firm A x performance evaluation received) should be positively related to beliefs about merit.

Survey administration and response issues

The survey was distributed to 845 employees in two firms that have internal labor markets (called Company A and Company B). The response rate to the survey was 51.8%, not unusual for a mailed survey, but still low enough that sources of response bias warranted examination. I performed a logistic regression to predict non-response, following the method in Berk (1983), and found that none of the available variables significantly differentiated between respondents and non-respondents. I was limited to variables for which I had information on non-respondents: detailed work group, location code, and sex (the companies were not able to provide me with additional information about employment history, and of course, data on beliefs is always missing for non-respondents). I also had information on the distribution of performance evaluations for the entire population. A Chi-

squared test showed that my sample was not significantly different from the population. For the purpose of this study, it is particularly good that neither winners nor losers in the performance evaluation contest are over- or under-represented.

Results

This section: 1) presents the descriptive findings about beliefs and compares respondents' beliefs about merit in the firm versus in the U.S., 2) addresses the preliminary concern that respondents think merit *ought* to count, 3) creates the mobility rates normed for occupational group, 4) computes the relative return on education and tenure by regressing them on position, 5) presents the results of the examination of Hypotheses 1 to 11, 6) examines whether perceived advancement, which proves to be an important variable for understanding beliefs in merit, is correlated with actual advancement, and 7) considers whether ambivalence about merit better characterizes some respondents.

Pattern of beliefs about merit

Tables 2 and 3 show the means, standard deviations, and correlations for variables in this study. Responses to the questions about merit show there is variation in beliefs about the five merit variables, although the mean level of belief in the merit factors (about 5 on a 7-point scale from "does not count" to "counts very much") compared to the mean level of belief in the "non-merit" items, privilege and luck (on the same scale), suggests an overall tendency toward belief that the firm is meritocratic. Table 4 shows the frequency distribution of responses to the merit questions.

This study was motivated by national level studies of beliefs about inequality. In future studies, the links between beliefs about national and organizational mobility can be tied together. This study has some preliminary data on this issue. Individuals may believe that the U.S. is generally meritocratic and that their workplace, about which they have more specific information, is less so. I expected this pattern, particularly since questions about opportunity worded more specifically

generate lower levels of belief (e.g., Schlozman & Verba, 1978). Alternatively, it may be that people perceive there is inequality in the U.S. ("out there"), but my own situation in my own company is fair, which would be consistent with Lerner's (1980) theory of people's views of a "just world." In fact, this latter pattern is what I find for this sample.

It appears, looking at the means in Table 5, that employees believe more strongly that the firm is meritocratic than that the United States is meritocratic. Statements about ability, hard work, and privilege in the United States generate a lower mean and about the same variance as statements about ability, hard work, and privilege in the more specific context of the workplace.

In addition, the beliefs about the national and the organizational opportunity structure appear to be only moderately correlated. Particularly since both questions were asked in the same survey, one might expect a higher correlation simply as an artifact of the method. It appears instead that employees' beliefs about merit in one context do not strongly relate to or inform their beliefs about merit in the other context.

Whether respondents think merit ought to count

Before proceeding, it is necessary to check that the merit items (hard work, ability, performance) are what individuals generally think *ought* to count for advancement and that the non-merit items (privilege, luck) *ought not* to count. This difference is important for interpreting the results; for example, if employees do not think hard work counts, but they do not think it ought to count in the first place, then the interpretation should not suggest some kind of crisis of legitimacy. What I have called "non-merit" items should be undesirable deviations from meritocracy, not normatively desirable bases for deciding advancement. I asked respondents to rate how much each item ought to count, on a 7-point scale. Their responses confirm the posited merit / non-merit distinction. Merit items are rated high in the normative questions, and non-merit items are related low. Table 6 shows the means and standard deviations.

Construction of the measure of upward mobility relative to job category

This variable is used as one of the three measures of mobility for Hypothesis 2. I constructed a measure of each individual's mobility relative to others in the same job category, as shown in Table 7. Because this variable proves to be only marginally significant in the equations in this study, and other measures of mobility are stronger, it is not made a focus of this study. The simpler specifications of mobility should be used if the more nuanced ones do not add explanatory value. However, future work using this data might give more emphasis to organizational social groupings that give rise to local social comparisons, as urged by Baron and Pfeffer (1989).

Construction of the measure of relative return on human capital

This variable is used in testing Hypothesis 3. To calculate relative return on human capital I regressed position on education and tenure. I saved the residual to measure each individual's relative return on education and tenure (similar to the procedure used in Pfeffer and Lawler (1980) and Harder (1992)). A higher residual represents relative "over-attainment." Results of this procedure are shown in Table 8. Separate regression equations for Company A and Company B are shown (and the second of the two equations for each company just shows other exploratory measures of human capital that were not retained for conceptual or empirical reasons). Theoretically, it makes sense to run separate equations for the two companies, because individuals have within-firm information about how their position compares with that of others of similar education and tenure and whether it is relatively high or low. Therefore, their return is calculated relative to others in the same firm. The R^2 for Company A is much higher than the R^2 for Company B (.669 versus .175). Differences in education and tenure explain much more of the variance in position in Company A. Regressing education and tenure on the log of position does not improve the fit for Company B; the skew in position is not great in this study (studies where highly skewed income is the dependent variable use the log of income to improve linear fit).

Because of the better fit for Company A, relative return on education and tenure may prove to have a stronger relationship to perceived advancement for employees in Company A. That is, in

Company A, an employee whose return on education and tenure is too low relative to his or her colleagues might be more aware of this under-attainment in a context where education and tenure align more closely with position, and and it may diminish his or her perceived advancement. In contrast, in Company B, other unmeasured variables appear to contribute to the variance in position in the company, so relative return on education and tenure may be of less importance for perceived advancement. To examine the possibility that relative return on education and tenure operates differently in the two companies, I include an interaction term – Firm A x the attainment residual – in the equations that estimate perceived advancement. This term is not significant and is not shown in the final results in Table 9.

Examination of Hypotheses 1 to 11

Results for Hypotheses 1 to 7 are shown in Table 9. This study finds not only that perceived performance in the firm's mobility contest is significant for understanding beliefs about merit, but also that absolute position in the hierarchy is generally not significant (it is only significant in the equation for how much privilege counts, which is discussed further below). Again, this pattern suggests that the organization is not vertically divided between believers in meritocracy nearer the top and disbelievers nearer the bottom. Rather, there are relative believers and disbelievers in every level. In general, the equations do not explain much of the variance (less than ten percent) in beliefs, so significant relationships must be viewed against this finding.

Position in the organizational hierarchy. Hypothesis 1 argues that position should relate positively to believing that advancement is meritocratic. The results show that position does not relate to variance in beliefs about the three merit items – hard work, ability, and performance – nor about the role of luck.

However, position does matter for beliefs about how much privilege counts. The relationship is in the predicted negative direction. This finding says that people in higher positions believe less strongly that privilege contributes to success, while people in lower positions believe more strongly that privilege counts. The belief that privilege *does* count is a potentially more radicalizing belief

than the belief that hard work, ability, or privilege *does not* count, so it is interesting that the former is found but not the latter. Because privilege is the counter-normative alternative to the idea that merit counts, either people might be neutral about it because it is unfamiliar and not part of corporate language, or they have strong opinions about it (strongly positive or negative, depending upon their position).

Performance evaluation. Performance evaluation relates only to luck. The better the performance evaluation someone receives, the less strongly they believe that luck counts. Those who do worse in the contest to get the limited good performance evaluations may find some comfort in the attribution that luck determines who does best. In interviews, some of those who received excellent performance evaluations graciously acknowledged that there was certainly an element of luck, particularly since performance (on the shop floor or at a desk) is difficult to measure. In the anonymity of a survey, they appear to have been less likely to attribute importance to luck.

Perceived mobility. As predicted in Hypothesis 9, perceived mobility has a significant positive relationship to hard work, ability, and performance and a significant negative relationship to luck and privilege. It is the only variable that shows significant effects in the predicted direction in all five equations. One of the main findings of this study is that perceived mobility is significant for understanding beliefs about merit.

Performance evaluation discrepancy. Higher discrepancies (deserved minus actual performance evaluation) indicate greater disappointment with the performance evaluation received. This variable is significant in the predicted direction in two equations (hard work and luck) and marginally significant in two equations (performance and privilege). Employees who are more disappointed feel less strongly that hard work and performance count, and feel more strongly that privilege and luck count.

Upward mobility, relative return on tenure and education, lateral moves, crossing a class boundary, being a manager. Contrary to the predictions in Hypotheses 2, 3, 5, 6, and 7, none of these variables have a significant relationship to beliefs about merit. All these variables have the advantage, discussed above, of being "quasi-objective" measures of individuals' employment

experience and history. While this is a methodological advantage, it may also mean that, inasmuch as these variables are constructed by the researcher and not reported by employees, these variables do not reflect some understanding the respondent has of his or her experience. An employee may not need to "make sense of" these experiences by believing to a greater or lesser extent in the role of merit if these experiences are not salient in the first place.

An alternative interpretation is that these experiences do contribute to perceived advancement, perhaps with some noise. This possibility is explored below. The perceived advancement variable may already capture the role of these variables.

Tenure. Tenure has a significant negative relationship both to the belief that hard work counts and to the belief that ability counts, in the direction predicted in Hypothesis 8. Newer employees may start with a belief that hard work and ability are rewarded, perhaps because they have just come from school or start with new priors that their new company is a meritocratic place. With longer tenure, employees believe less strongly that hard work and ability count. Their beliefs decrease with tenure, perhaps because as options close and careers settle to a certain pace, they may feel that their own hard work and ability is not, on the margin, delivering better advancement. Tenure per se must be driving negative relationship, which remains even when mobility is controlled for. The effect of tenure is not simply true for people who are frustrated about not being mobile.

Sex. Sex is not related to beliefs about merit, contrary to Hypothesis 11.

Occupation. Employees who are in Production are less likely to believe that performance counts. This result is surprising, since the stereotypical view of Production is that it has more usable performance measures on which to base evaluations and advancement than do the business/administrative or engineering occupations, which are thought to include more projects that are ambiguous, long-term, or accessible only by similarly skilled members of what Williamson and Ouchi (1981) call a "clan." In fact, what may be going on is that Production employees can see, precisely because performance is measurable and not socially constructed, that performance is not the arbiter of who gets ahead.

Firm. Only one main effect of firm is found. Employees in Company A are less likely to

believe that hard work counts. The structure of the performance evaluation system may contribute to this belief.

Interaction of Firm A and performance evaluation. The slope for performance evaluation is steeper for Company A (the interaction term for Firm A and performance evaluation is positive and significant). Perhaps many employees feel they work hard, but the forced normal distribution of evaluations limits the number who can get the highest evaluation and forces managers to give low evaluations to some. Those in Company A who do well in this competition believe even more strongly that hard work counts than those who get the top evaluations in Company B. And those who get stuck with the poor ratings in Company A are even less likely to believe that hard work counts for determining who gets which evaluations. (Dummy variables for four of the five levels of performance evaluation can be included in future work to estimate more precisely the return to performance evaluation.)

Overall, perceived advancement is important for the small amount of variance in beliefs explained in these five equations. The next section considers the extent to which perceived advancement relates to actual advancement, particularly in light of the surprising finding that none of the "quasi-objective" measures of employees' experiences in the advancement contests in the firm is significant.

The relationship of actual advancement experiences to perceived advancement

This study proposes that individuals might cope with meritocracy by embracing the belief in merit to differing degrees. Another way in which they might cope is to believe they are successful. While true success in advancement contests is limited, individuals may perceive themselves to be successful, whether because of inflated impressions or because other kinds of success are possible in a variety of local contests. Local constructions of success may assist the individual. For example, a person who has not experienced any upward mobility in an organization might nonetheless feel successful if he or she has made frequent lateral moves that add interesting change to the work to be done. Indeed, the current move toward flatter organizations and more job rotation requires

corporations to encourage employees to regard such moves as real, not illusory or consolatory, representations of success, while a critical sociological approach might regard these "satisfying" lateral moves as mere illusions of mobility (e.g., Baron & Bielby, 1986); these normative views are not adjudicated herein.

It seems very straightforward to predict that individuals perceive their advancement to be better or worse to the extent that their advancement has actually been relatively better or worse. This answer is not as trivial as it may at first appear. The links between experiences and beliefs is complex (e.g., Kinder & Sears, 1985), as is the relationship between behaviors and attitudes (e.g., Ajzen & Fishbein, 1977). Psychologists have identified factors that might attenuate the relationship between experiences and perceptions. Motivations may intervene: people might naturally want to deny failure and nurture "positive illusions" (Taylor, 1988) about their success.

These mechanisms notwithstanding, I expect that, at the workplace, people's perceptions of their mobility will be fairly well in line with their actual mobility. At the workplace, positive illusions may be hard to sustain. The evidence of how well one is doing is constantly present, whether in the form of a weekly paycheck, of promotion announcements of peers, or of having to take orders from a superior vested with the greater authority of a higher position. These reminders may make denial or positive illusions a tenuous coping strategy. While no particular body of theory is the appropriate one to adduce to predict simply that actual relative mobility experience relates to perceived relative mobility experience, this view of the particularities of the workplace suggests a significant link.

Perceived advancement is regressed on the variables from the preceding analysis – position, upward mobility, relative return on human capital, performance evaluation, lateral moves, crossing a boundary, being a manager, tenure, sex, occupation, and firm. The results are shown in Table 11 and discussed below. Overall, actual experiences explain about twenty percent of the variance in perceived advancement. Advancement experiences other than upward mobility, experiences that may be considered ancillary to upward mobility, are included alone in the first of the three equations. In the second equation, the addition of upward mobility rate significantly improves R^2 (following the method for comparing nested models in Wonnacott and Wonnacott (1977:434-436). The other

factors alone do not explain perceived advancement as well as the equation including the most direct measure of actual advancement, although they can explain about sixteen percent of the variance in perceived advancement. In the third equation, demographics and controls are included, but none contribute significantly.

Position in the organizational hierarchy. The findings show that position does not relate to perceived advancement. As above, the lack of a significant role for position suggests that perceptions of success are not vertically stratified and clustered at the top. It is possible that the nature of the dependent variable prompts respondents to think in terms of how they have advanced, rather than where they have arrived. A broader question about satisfaction with one's status in the firm might have produced a significant relationship with position. In terms of the mobility contest specifically, a higher position does not appear to relate to a greater sense of success in the mobility contest.

Performance evaluation. Performance evaluation has a significant positive relationship to perceived advancement, in all three equations. Those who get higher evaluations perceive that their advancement overall has been good. Many studies find that employees are cynical about performance evaluations, and in my interviews, I found that employees who had gotten high and low ratings insisted they did not take performance evaluations very seriously. Much of the literature on improving performance evaluations responds to this cynicism and focuses on how to improve the process (e.g., Ilgen & Feldman, 1983; Murphy & Cleveland, 1991) in order to increase the credibility and perceived procedural fairness of what is taken to be an unfortunate aspect of the organizational governance structure. The strong positive relationship between performance evaluation and perceived advancement in this study suggests that people who receive high performance evaluations may not be entirely cynical about the signal it sends and people who receive low performance evaluations are not so entirely mollified by fair procedures that they perceive themselves to be doing just as well.

Relative return on education and tenure. Relative return on education and tenure (also labeled "attainment residual") had only a marginally significant positive relationship to perceived advancement and was not significant with all the controls added. As discussed above, this variable has the advantage of being a quasi-objective measure constructed by the researcher. At the same time,

because it is constructed by the researcher rather than obtained as an attitudinal measure from the survey, it has the disadvantage that it may not tap the social reality of the respondent. The education measure from which this variable was derived asked only about terminal degrees (except for the "some college" category); these categories are commonly used in social science survey research. It may be, however, that employees in an organization make more detailed comparisons about more specific types of training. For example, people who get a degree in a particular subject at a nearby college or who take a particular on-site course to upgrade their skills may compare their attainment to one another, particularly if these courses were pitched as ways to improve one's career. Future research can pursue multiple and more detailed measures of this variable, which may prove to be significantly related both to perceived advancement and to beliefs about merit.

Upward mobility. Actual upward mobility rate had a significant positive relationship to perceived advancement. (The equations were also run including, in separate turns, the absolute movement variables, which was significant in the equations, and the variable "mobility relative to others in one's job category," which is only marginally significant.) This seemingly simple result is a contribution of this study, because this relationship has been assumed or overlooked, but not empirically demonstrated. While appealingly simple, this result was not a foregone conclusion.

Lateral moves (recent). This variable has a significant, positive relationship to perceived advancement. That this variable is significant in addition to actual upward mobility suggests that lateral moves can contribute independently of actual mobility to the perception of advancement. If, for example, two employees both have zero overall mobility rates, but one has made two lateral moves recently, that person should perceive slightly better advancement, despite the fact that the stark zero mobility rate is true for both. In this sample, of the 177 employees who have zero mobility rates, 88 (49.7%) report no recent lateral moves,, while 66 (37.3%) report 1 move, and 23 (13.0%) report 2 to 4 moves. That is, half the people with zero upward movement report at least 1 recent lateral move. This lateral move contributes positively to their perceived advancement and may partly ameliorate for them the lower perceived advancement they would have on the basis of their zero mobility rate alone.

Crossing a class boundary. The experience of crossing a class boundary contributes

positively to the perception of advancement. This result is consistent with interviewees' reports that this is a particularly salient positive experience, even controlling for actual number of levels advanced.

Tenure. Tenure is not significantly related to perceived mobility once all the controls are included. Two explanations pose competing predictions about the direction of the effect of tenure. First, longer tenure may increase an employee's sense of general satisfaction, including feelings about advancement. Chinoy (1956) found this positive relationship of tenure to satisfaction for automobile workers and attributed it to longer tenured employees' efforts to reduce their cognitive dissonance over staying in a boring job with low mobility for a long time. Second, in contrast, I favor arguments that tenure will have a negative relationship specifically to perceived advancement. With longer tenure, employees who have not yet had a spurt of mobility may feel their chances diminishing, particularly since significant mobility appears to happen earlier in a career in a firm (Rosenbaum, 1979). And with longer tenure, employees who have been mobile and are near the top of their ladder or the top of the firm face fewer available openings above them (Stewman & Konda, 1984; White, 1970), and, despite their position, they may experience their mobility as too slow. If both these effects are in operation for different people, they would cancel any straightforward significant effect of tenure.

It is worth bearing in mind that much of the variance in perceived advancement is left unexplained. A simpler look at the data shows an asymmetric tendency for people to "over-perceive" themselves to be advancing well, relative to their actual mobility rate. The role of a variable like lateral mobility helps to explain why there might be a general tendency for employees to perceive they are doing somewhat better than they actually are. The two variables, perceived advancement and mobility rate, are cross-tabulated in Table 12, demonstrating this asymmetry.

Ambivalence about meritocracy

The discussion of asymmetry above suggests that people have some cognitive agility in their sense-making about workplace experiences. This cognitive agility is downplayed in the explanations

for why people believe that hard work counts and why people believe that luck counts, which make it sound like people who believe in hard work do not believe in luck and vice versa. In fact, people may not have such internally consistent perspectives. This study has argued that there is some dissensus about meritocratic ideology, looking at dissensus over how much a particular items counts.

However, what may characterize people's beliefs is ambivalence across items. In fact, ambivalence may be crucial for understanding why the dissensus sprinkled throughout the system does not seem to result in dissent. The people who believe that luck counts may also believe that hard work counts; indeed, this balanced view would be quite a sensible one. I am calling these people "ambivalent," but do not mean this term pejoratively, as have some social scientists who label people's beliefs inconsistent or incoherent. This ambivalence may reflect a reasonable assessment of how things work. On the margin, at least, hard work does count. But luck can count too. A more difficult ambivalence to resolve is that ability counts but so does coming from a privileged background. Ability and privileged background are the two items that have been pitted against each other in national level status attainment studies (e.g., Jencks et al., 1979). I cross-tabulated people's answers to the questions about ability and privilege to see if there were people in all four cells, representing four overall ideological views, which I label "true believers," "true disbelievers," "ambivalents," and "agnostics" (who believe in neither). Table 13 shows that each of the conceptually possible groups is empirically represented in this sample. Future research on ambivalence is warranted.

Conclusions and Implications

One implication of these findings is that meritocratic ideology is inherently flawed as a legitimating ideology precisely because it invites those doing poorly, not to believe that their position is their own fault, as a legitimating ideology would do, but to protect their esteem and question the ideology, as psychological theories suggest people would do. What I call the "irony of meritocracy" is that disbelief is generated precisely by the nature of meritocratic claims. The practice of ranking and differentially rewarding employees necessarily designates some employees as relative "losers" in

the meritocratic contest and places them into lower positions or slower mobility paths. Some of these employees may accept meritocratic ideology and blame themselves and their inferior merits for their failures in the merit contest (only a small amount of the variance in beliefs is explained by the variables in this study). This argument is based on one view of employees and is consistent with theories of perfect legitimation. The hypotheses in this study advance the alternative possibility that employees who do less well reject meritocratic claims. This argument appeals to a different view of employees emerging in the sociological literature: They are not too easily fooled, they are cognitively agile in their search for self-enhancing attributions about their position and mobility rate, and their particular experiences in an ILM inform their particular beliefs. By touting meritocratic claims, firms may inadvertently but systematically demoralize a segment of their workers, precisely in the attempt to build their commitment.

The findings in this study suggest that firms are not characterized by perfect legitimation. Since there are some disbelievers in meritocracy in the firm, the interesting question that follows is whether there is a crisis of legitimacy for the firm. This study suggests two ways in which firms might retain a stable status quo despite some degree of de-legitimation. First, if mobility rates relate to beliefs about meritocracy and mobility rates are distributed through all levels of the firm, then the disbelievers will be dispersed. Every level will have some people who won and some people who lost the mobility contest. This pattern is another form of the balkanization of the workforce and would probably tend to prevent collective dissent (which is, after all, what theories of legitimation were invented to explain the lack of). Second, employees' dependence on the firm for many things – from income, job security, deferred compensation, and benefits to friendships, emotional affiliation, and familiarity – may reduce their willingness to dissent, despite dissatisfaction with inequality, and preserve a stable status quo. The relationship of beliefs about merit, versus other forms of attachment to the firm, to dissent is a subject that will be treated in another analysis of the data from this survey.

The idea of "imperfect legitimation" prompts a different view of legitimation and a different view of ILMs. At first, "imperfect legitimation" may appear to be less stable than perfect legitimation. However, I suggest that the coexistence of belief and disbelief in an ILM may be easier to sustain than

complete belief in legitimating claims. A state of perfect legitimation may be precarious; it may collapse when employees see disconfirming evidence that causes questioning of meritocratic claims. If such questioning is already going on, however, then it is harder to see what it would take to spur employees to moral outrage and a push for changes. ILMs may provide stability to firms that use them, but not simply or largely because they include governance structures that promise fair advancement and that thereby gain the normative commitment of employees. The picture may be more complicated. Some employees may endorse the firm's meritocratic claims. But we should not infer from the seeming stability and success of any given firm that uses ILM practices that it has achieved legitimation, "false consciousness," bureaucratic control, or normative commitment.

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Table 1. Summary of hypotheses.

Independent variables	Dependent Variables: The role of merit Hard work counts Ability counts Performance counts	 Privilege counts Luck counts
Success in the firm's advancement contests		
Position	*Hyp. 1* +	*Hyp. 1* –
Upward mobility	*Hyp. 2* +	*Hyp. 2* –
Relative return on education and tenure	*Hyp. 3* +	*Hyp. 3* –
Performance evaluation	*Hyp.4* +	*Hyp. 4* –
Other advancement experiences in the firm		
Lateral moves (recent)	*Hyp. 5* +	*Hyp. 5* –
Crossing class boundary	*Hyp. 6* +	*Hyp. 6* –
Being a manager	*Hyp. 7* +	*Hyp. 7* –
Tenure	*Hyp. 8* –	*Hyp. 8* +
Perceptions of advancement		
Perceived advancement	*Hyp. 9* +	*Hyp. 9* –
Performance evaluation discrepancy (deserved minus actual)	*Hyp. 10* –	*Hyp. 10* +
Demographics and controls		
Sex	*Hyp. 11* +	*Hyp. 11* –
Occupation dummies	--- a)	--- a)
Firm dummy	--- a)	--- a)

Notes
a) No prediction is made. Will be included in the equations as a control.

Table 2. Descriptive statistics.

	Mean	Standard deviation	Minimum	Maximum
Ability counts	5.01	1.33	1	7
Hard work counts	5.15	1.23	1	7
Performance counts	5.30	1.16	1	7
Privilege counts	3.08	1.99	1	7
Luck counts	4.05	1.63	1	7
Position	10.31	4.48	1	20
Mobility rate	0.32	0.41	0	2.67
Movement upward(levels)	2.04	0.69	0	12
Category rel. movement	0.00	2.12	-4.38	6.66
Performance evaluation	3.56	0.86	1	5
Lateral moves	1.18	1.20	0	4
Cross class (1=yes)	0.15		0	1
Manager (1=yes)	0.20		0	1
Tenure	6.15	4.02	0	31.67
Education	4.91	1.62	0	7
Perceived mobility	4.40	1.69	1	7
Disappointment w/ PE	0.27	0.69	-2	4
Sex (1=female)	0.37		0	1
Production	0.38		0	1
Business/Admin	0.16		0	1
Engineering	0.46		0	1
Firm A	0.35		0	1
Firm A x PE	1.11		0	5

Table 3. Correlation Matrix

	1.	2.	3.	4.	5.	6.	7.
1. Perceived mobility	1.000						
2. Perceived comp. mobility.	0.429***	1.000					
3. Position	0.172***	0.102**	1.000				
4. Performance evaluation	0.220***	0.288***	0.212***	1.000			
5. Evaluation discrepancy	-0.148**	-0.179**	-0.133**	-0.603***	1.000		
6. Relative return	0.231**	0.093***	0.566***	0.020	0.002***	1.000	
7. Movement	0.366***	0.210***	0.247***	0.177***	-0.116**	0.235***	1.000
8. Mobility rate	0.379***	0.286***	0.226***	0.204***	-0.162***	0.191***	0.772***
9. Movement, rel to firm	0.354***	0.205***	0.199***	0.160***	-0.105*	0.222***	0.997***
10. Movement, rel to job	0.318***	0.182***	0.098***	-0.083	-0.064	0.180***	0.914***
11. Recent improvementa	0.218***	0.225***	0.043	0.087*	-0.041	0.038	0.257***
12 Crosa boundary	0.261***	0.025	-0.136**	0.055	-0.007	-0.025	-0.597***
13. Tenure	-0.025	-0.134**	-0.011	0.046	-0.041	-0.003	0.412***
14. Sex	-0.008	-0.047	-0.371***	0.005	0.046	-0.006	-0.110**
15. Education	-0.031	0.041	0.552***	0.095*	-0.108*	-0.001	-0.097*
16. Manager	0.165***	0.144**	0.345***	0.217***	-0.094*	0.376***	0.359***
17. Prod	-0.046	0.052	-0.408***	-0.020	0.053	-0.205***	0.091*
18. Business	-0.041	0.010	-0.193***	0.023	-0.051	-0.109*	-0.044
19. Engineer	0.075	-0.057	0.541***	0.002	-0.015	0.281***	-0.056
20. Firm A	-0.183***	-0.106*	-0.605***	-0.257***	0.125**	-0.001	-0.066
21. Hard work	0.158***	0.199***	0.102*	0.163***	-0.156***	0.036	0.000
22. Ability	0.151***	0.160***	0.045	0.051	-0.082	0.081	-0.042
23. Perform	0.164***	0.162***	0.040	0.040	-0.102*	0.052	-0.028
24. Privilege	-0.140**	-0.122**	-0.222***	-0.058	0.131**	-0.114*	0.007
25. Luck	-0.190***	-0.182***	0.026	0.051	0.078	-0.015	-0.008

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Correlation Matrix (continued)

	8.	9.	10.	11.	12	13.	14.
8. Mobility rate	1.000						
9. Movement, rel to firm	0.764***	1.000					
10. Movement, rel to job	0.723***	0.922***	1.000				
11. Recent improvements	0.288***	0.265***	0.275***	1.000			
12. Cross boundary	0.409***	0.596***	0.516***	0.133***	1.000		
13. Tenure	0.050	0.439***	0.381***	0.075	0.258***	1.000	
14. Sex	-0.111*	-0.102*	-0.097*	-0.028	0.064	-0.073	1.000
15. Education	0.021	-0.119**	-0.081	-0.034	-0.342***	-0.158**	-0.214***
16. Manager	0.277***	0.349***	0.215***	0.149**	0.160**	0.166**	-0.118**
17. Prod	0.018	0.113**	0.046	-0.003	0.208***	0.080	0.037
18. Business	-0.022	-0.039	-0.028	-0.005	0.044	-0.036	0.311***
19. Engineer	-0.001	-0.082	-0.023	0.006	-0.235***	-0.051	-0.266***
20. Firm A	-0.162**	-0.000	-0.002	-0.004	0.055	0.327***	0.177**
21. Hard work	0.028	-0.015	-0.053	0.063	-0.028	-0.157**	-0.005
22. Ability	-0.003	-0.050	-0.065	0.095*	-0.096	-0.223***	0.092*
23. Perform	0.009	-0.037	-0.055	0.060	-0.038	-0.084	0.086
24. Privilege	-0.051	0.015	0.043	-0.046 *	0.121**	0.072	0.053
25 Luck	-0.013	0.009	0.008	0.031	0.025	0.064	0.029

+ p < .10, * p < .05, ** p < .01, *** p < .001

Table 3. Correlation Matrix (continued)

	15.	16.	17.	18.	19.	20.	21.
15. Education	-0.214***	1.000					
16. Manager	0.008	1.000					
17. Prod	-0.379***	-0.147**	1.000				
18. Business	-0.052	-0.038	-0.347***	1.000			
19. Engineer	0.409***	-0.115**	-0.719***	-0.403***	1.000		
20. Firm A	-0.241***	-0.106**	-0.238***	-0.113**	-0.316***	1.000***	
21. Hard work	0.103**	0.057	-0.081	-0.001	0.080	-0.133**	1.000
22. Ability	0.119**	-0.002	-0.087	0.039 *	0.056 *	-0.016	0.561***
23. Perform	0.040	0.011	-0.144***	0.061 *	0.095*	-0.032	0.467***
24. Privilege	-0.235***	-0.037	0.107**	0.024	-0.122**	0.109**	-0.194***
25. Luck	0.038	-0.012	0.015	0.014	-0.026	-0.002	-0.154**

+ p < .10, * p < .05, ** p < .01, *** p < .001

Table 3. Correlation Matrix (continued)

	22.	23.	24.	25.
22. Ability	1.000			
23. Perform	0.488***	1.000		
24. Privilege	-0.261***	-0.121***	1.000	
25. Luck	-0.229***	-0.273***	0.230***	1.000

+ p < .10, * p < .05, ** p < .01, *** p < .001

Table 4. Frequencies of responses to questions about merit.

number
(percentage)

Response	Ability	Hard work	Performance	Privilege	Luck
1 not at all	4 (0.9)	1 (0.2)	2 (0.5)	122 (28.7)	23 (5.4)
2	17 (4.0)	13 (3.1)	5 (1.2)	60 (14.1)	56 (13.2)
3	25 (5.9)	15 (3.3)	17 (4.0)	45 (10.6)	56 (13.2)
4 some what	91 (21.4)	97 (22.8)	72 (16.9)	62 (14.6)	121 (28.5)
5	111 (26.1)	110 (25.9)	118 (27.8)	29 (6.8)	57 (13.4)
6	110 (25.9)	118 (27.8)	138 (31.3)	27 (6.4)	48 (11.3)
7 very much	52 (12.2)	56 (13.2)	59 (13.9)	33 (7.8)	34 (8.0)
9 blank	15 (3.5)	15 (3.5)	19 (4.5)	47 (11.1)	30 (7.1)

Table 5. Comparison of respondents' rating of the importance of merit items in the United States and in their company.

	In the U.S.	In the company	
	Mean (s.d.)	Mean (s.d.)	Correlation
Ability counts	4.17 (1.45)	5.01 (1.33)	.2828 ***
Hard work counts	4.54 (1.31)	5.15 (1.23)	.2371 ***
Privilege counts	3.68 (1.40)	3.08 (1.99)	.3320 ***

*** p < .001

Table 6. Employees' normative ratings of how much hard work, ability, performance, privilege, and luck *ought* to count

Item	Mean	s.d.
Items that ought to count very much according to meritocratic ideology (7 on a 7-point scale in this study).		
Hard work	6.15	0.90
Ability	6.16	0.96
Performance	6.34	0.75
Items that ought not to count according to meritocratic ideology (1 on a 7-point scale in this study).		
Privilege	1.51	1.03
Luck	2.00	1.18

Table 7. Relative mobility, by company, by job category.

Job category (representative titles)	n (% of co.)	Percent female	Mean levels advanced (s.d.)	Range	Skew	Kurtosis
Company A (n=147)						
1. Production (assembler, material handler, technician)	47 (32.0)	48.9	0.341 (1.160)	0-7	4.899	26.552
2. Administration (office support, programmer, scheduler, other non-exempt)	35 (24.5)	71.4	1.618 (1.792)	0-8	1.825	3.935
3. Business (financial analyst, marketer, supervisor, manager, other exempt)	34 (25.8)	50.0	4.382 (3.210)	0-10	0.116	-1.602
4. Engineering (R&D engineer, manufacturing engineer, quality analyst)	26 (17.7)	11.5	1.348 (2.124)	0-8	1.900	3.490
Company B (n=278)						
1. Production: (assembler, material purchaser, technician, inspector)	53 (19.1)	26.4	3.176 (2.840)	0-11	0.517	-0.607
2. Business/Admin (administrator, systems analyst, accountant, technical writer, trainer, other exempt)	61 (21.9)	45.9	1.787 (2.332)	0-12	1.718	4.648
3. Engineering (software engineer, hardware engineer, manufacturing engineer, scientist)	164 (59.0)	26.8	1.976 (2.128)	0-9	0.806	-0.285

Table 8. Estimates of the return on education, tenure, and other measures of human capital for Companies A and B.

Dependent variable: Position

b value (t statistic shown in parentheses)

	Company A		Company B	
	(1)	(2)	(1)	(2)
Education	2.195***	2.080***	0.714***	0.682***
	(15.227)	(16.747)	(6.463)	(6.124)
Tenure in firm	0.216***	0.232***	0.231***	0.254***
	(4.057)	(5.146)	(4.564)	(4.883)
Mobility rate		4.517***		0.192
		(8.032)		(0.468)
Performance evaluation		-0.174		0.358***
		(-0.879)		(1.469)
Firm-specific skills (self rating)		-0.075		0.357
		(-0.463)		(2.854)
Productivity relative to similar others (self rating)		-0.427*		0.059
		(-2.107)		(0.387)
Constant	-4.763	-2.382	7.351	4.817
	(-6.448)	(-1.681)	(10.292)	(3.352)
Adjusted R^2	.669	.776	.175	.205

Descriptive statistics for the saved residual (referred to as "Relative return on education and tenure")

mean	-0.011	0.002
s.d.	2.645	2.614
minimum	-5.801	-6.517
maximum	8.353	8.120

*** p < .001, ** p < .01, * p < .05, + p < .10

Table 9. OLS estimates of variables related to beliefs about how much merit counts.

b value (t-value)	Dependent variables: How much does each of these count:				
	(1) Hard Work	(2) Ability	(3) Performance	(4) Privilege	(5) Luck
Position (pay grade)	-0.010 (-0.258)	0.037 (0.906)	-0.028 (-0.761)	-0.192** (-3.108)	0.055 (1.077)
Mobility rate	-0.233 (-1.126)	-0.204 (-0.956)	-0.175 (-0.914)	0.051 (0.157)	-0.006 (-0.021)
Attainment residual	-0.025 (-0.739)	-0.032 (-0.816)	0.004 (0.128)	0.109 (1.690)	-0.021 (-0.454)
Performance evaluation	-0.215 (-1.515)	-0.114 (-.747)	-0.096 (-0.703)	0.053 (0.230)	0.461* (2.430)
Recent improvements	0.058 (1.032)	0.105 (1.728)	0.033 (0.602)	-0.040 (-0.438)	0.095 (1.273)
Cross class boundary	0.059 (0.268)	-0.127 (-0.534)	-0.103 (-0.486)	0.444 (1.235)	0.205 (0.699)
Manager	0.929 (1.473)	0.111 (0.517)	0.197 (1.022)	0.153 (0.467)	-0.234 (-0.878)
Tenure	-0.053** (-2.846)	-0.086*** (-4.302)	-0.020 (-1.139)	0.027 (0.890)	0.026 (1.036)
Perceived mobility	0.101* (2.374)	0.125** (2.729)	0.116** (2.815)	-0.157* (-2.251)	-0.250*** (-4.386)
Perf. eval. discrepancy	-0.242* (-2.028)	-0.180 (-1.400)	-0.211+ (-1.836)	0.361+ (1.852)	0.431** (2.708)
Sex	-0.439 (-1.262)	-0.109 (-0.290)	-0.121 (-0.362)	-0.117 (-0.206)	0.285 (0.556)
Production	-0.206 (-1.131)	-0.127 (-0.648)	-0.408* (-2.318)	-0.228 (-0.764)	0.180 (0.741)
Business/ Admin	-0.121 (-0.572)	-0.029 (-0.126)	-0.095 (-0.465)	-0.130 (-0.375)	0.102 (0.362)
Firm A	-1.937** (-3.041)	-0.176 (-0.256)	-0.049 (-0.079)	-0.958 (-0.920)	0.325 (0.383)
Firm A x perf eval.	0.541** (3.168)	0.179 (0.974)	0.031 (0.190)	0.223 (0.799)	-0.147 (-0.647)
Constant	6.086 (8.541)	4.844 (6.318)	5.683 (8.263)	5.485 (4.706)	2.424 (2.549)
Adjusted R2	.075	.080	.032	.062	.049
F (sig)	2.808 (.0002)	2.672 (.0004)	1.681 (.0446)	2.352 (.0020)	2.078 (.0076)

Table 10. Summary of significant relationships.

(1) Hard Work	(2) Ability	(3) Perform	(4) Privilege	(5) Luck
			- Position	
				- Performance evaluation received
+ Perceived mobility	+ Perceived mobility	+ Perceived mobility	- Perceived mobility	- Perceived mobility
- Performance evaluation discrepancy		- (Performance evaluation discrepancy)	+ (Performance evaluation discrepancy)	+ Performance evaluation discrepancy
- Tenure	- Tenure			
		- Production		
- Firm A				
+ Firm A x Performance evaluation				

( ) = marginal, $p < .10$

Table 11. OLS regression estimates of the relationship of actual advancement to perceived advancement.

Equation (1) Advancement experience, except upward mobility variable
Equation (2) Upward mobility variable is added (alternative upward mobility variables shown on the bottom of this page)
Equation (3) Control variables are added

Value shown is B (t value in parentheses)

	(1)	(2)	(3)
Position	0.009	-0.011	0.001
	(0.270)	(-0.315)	(0.012)
Mobility rate (levels/yrs)	---.---	0.961***	0.907***
		(4.124)	(3.690)
Relative attainment	0.072+	0.069+	0.057
	(1.785)	(1.743)	(1.333)
Performance evaluation	0.317**	0.266**	0.363*
	(3.326)	(2.809)	(2.392)
Lateral moves (recent)	0.304***	0.234***	0.220**
	(4.531)	(3.433)	(3.135)
Crossed boundary	0.951***	0.491+	0.503+
	(3.892)	(1.853)	(1.815)
Tenure	-0.042*	-0.035+	-0.026
	(-2.068)	(-1.719)	(-1.096)
Manager (1=yes)			0.092
			(0.363)
Sex (1=female)			0.827+
			(1.888)
Production			-0.260
			(-1.127)
Business/ Administration			-0.383
			(-1.437)
Firm (1=firm A)			0.264
			(0.333)
Firm A x perf. eval.			-0.159
			(-0.750)
Constant	2.932	3.117	2.707
	(6.127)	(6.589)	(3.402)
Adjusted R^2	.166	.200	.204
F	13.372	14.390	7.090
(sig)	(.0000)	(.0000)	(.0000)

+ p < .10, * p < .05, ** p < .01, *** p < .001

Table 12. Examination of the incidence of "mismatch" between perceived and actual mobility.

Shown for each cell:
Frequency
% of column
% of total

Mobility rate	Perceived mobility (7 point scale): Not advanced 1,2	Advanced somewhat 3,4,5	Advanced very much 6,7	
0 [a]	**44**	92	23	
	75.9	41.1	19.8	
	11.1	23.1	5.8	
.01 to .50 [b]	13	**81**	31	
	22.4	36.2	26.7	
	3.3	11.8	7.8	
> .50 [c]	1	51	**62**	
	1.7	22.8	53.4	
	0.3	12.8	15.6	
Column total	58	224	116	Total 398[d]
	100	100	100	

Notes:
The bold-faced diagonal shows that just over a third of respondents have "matched" perceptions and experiences, by this rough cross-tabluation.
a. A zero mobility rate should relate to indicating "not advanced."
b. A mobility rate of .01 to .50 (up to 1 level every 2 years) is right around the mean of .32 and should relate to "advanced somewhat."
c. A mobility rate of greater than .50 (faster than 1 level every 2 years) should relate to "advanced very much."
d. 27 cases have pairwise missing data (N=425).

Table 13. Combinations of beliefs about merit and non-merit items.

	Ability counts	
	No (0-4)	Yes (5-7)
Privilege counts		
No (0-3)	Agnostics (n=32)	True Believers (n=124)
Yes (4-7)	True Disbelievers (n=87)	Ambivalents (n=118)

n=361
(64 cases not classifiable)