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Why Racial Stereotyping Doesn't Just Go Away: The Question of Honesty and Work Ethic

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Abstract: One of the most persistent stereotypes about blacks concerns honesty and work ethic. These characteristics are also central to employers' evaluation of prospective and current workers; employers say that these traits matter more than skills. However, honesty and work ethic are difficult to observe and assess, placing them squarely in the terrain of statistical discrimination theory. One common criticism of this theory is that employers should be able to collect enough information on prospective workers to render race irrelevant, and that high-quality workers have incentives to signal their productivity to employers regardless of race. As a result, inefficient stereotypes should erode over time. In contrast, I argue that there are many reasons for inefficient stereotypes about honesty and work ethic to persist, and I investigate the empirical evidence for these theories.

Keywords: racial discrimination, statistical discrimination, honesty, work effort, work ethic, stereotypes.

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For many years, statistical discrimination theory (SDT) was as close as economists ever got to talking about racial stereotypes. Although the primary object of SDT was to explain wage inequality, it also suggested a simple way to think about group reputations. The generic textbook version of SDT, for example, implied that stereotypes could arise and persist if employers compete more effectively as a result of holding and acting upon correct perceptions of mean unobserved worker quality. Stereotyping, as well as unequal treatment of equally productive workers, would be efficient and enduring if information on individual productivity is costly, and if race is correlated with actual but poorly perceived dimensions of productivity.

In contrast, stereotypes would fade if the firm's appraisal of mean group differences is wrong. In the long run, stereotypes would therefore correspond to actual differences in expected quality. The mechanism by which expectations become aligned with reality is different in different versions of SDT; many, perhaps most, economists subscribe to the "weak" view that firms acting on incorrect assessments of average group productivity fail (*cet. par.*) in the long run. A stronger variant of the argument posits that even when stereotypes correctly identify mean group differences in productivity, firms still have the incentives and the means to identify high performers regardless of race; those that do not will fail.¹

For some critics of SDT, therein lies its Achilles' heel: if firms' expectations do not correspond to objective racial differences in unobserved productivity, if racial inequality persists *despite* inefficient stereotypes, then the theory has missed its mark, failing to explain both wage

¹ Two quite different accounts of group reputations in an environment of imperfect information are those of Lundberg and Startz (1983) and Coate and Loury (1993), to be addressed later on.

inequality and group reputations. The weak version of SDT simply has no way to comprehend incorrect stereotypes. The strong version rules out *any* stereotypes in the long run; all are inefficient.

I will be investigating the persistence of inefficient stereotypes with two commonly perceived differences between blacks and whites: honesty and work ethic. I focus on these for several reasons. First, businesspeople believe employee theft is a substantial personnel problem, with greatest concern expressed by the retail sales, food service, warehousing, banking, and medical services industries. (Dickens, *et. al.*, 1989; Sackett and Harris, 1984; Murphy, 1993) Similarly, employers are fully aware of how much they depend upon the “work ethic”, or discretionary effort and initiative, of their workers. (Bewley, 1999; Bowles, Gintis, and Osborne, 2001)

Second, I want to examine honesty and work ethic because many employers associate dishonesty and low motivation with black workers, despite the lack of any rigorous evidence justifying such a view. At the same time, a large number of employers claim not to see any such racial differences. The heterogeneity of employer opinions, plus the lack of any evidence that black employees are actually less honest, diligent, or conscientious, provides a strong test case for the view that employers who statistically discriminate on the basis of race should lose out over the long run to those who do not.

In contrast to this view, I will argue that information is especially problematic when employers are assessing the honesty and work ethic of employees. The exceptional ambiguity of signals about honesty and work ethic, more so than cognitive ability or other types of skill, approaches Keynes’ notion of uncertainty, in which agents often simply cannot form mathematical expectations, and instead rely on highly speculative judgments. Especially in this context, employers do not assess the data within a racially neutral algorithm; rather, they use

historically salient racialized conventions to navigate the informational void. As a result, employers' stereotyping will often exhibit gross inefficiencies. But since these inefficiencies have far more to do with external than private costs, and with coordination problems, individual employers typically have little to fear from their own poor judgments.

A final reason to explore stereotypes about honesty and work ethic is that these are not simply components of productivity. They are also fundamentally moral categories, selectively bestowing deservingness and social kinship upon different groups. They are building blocks of racial stigma. (Loury, 2002)

The Skeptics' Position

At first reckoning, the notion that competitive firms will reject the use of stereotypes in hiring and wage determination in the long run is compelling. Uncertainty should stimulate a market for information, and employers should invest in better tests. And if we can accurately profile serial killers, why can't we profile embezzlers or shirkers reasonably well?²

The problem has been stated in several different ways. First, Aigner and Cain (1977) argued:

“If employers mistakenly believe [the mean of white unobservable productivity is greater than the mean of black unobservable productivity], then they will mistakenly overpay whites relative to blacks, and we may doubt that such mistaken behavior will persist in competitive markets. Indeed, as an explanation of discrimination against blacks, a theory of discrimination based on employers' mistakes is even harder to accept than the explanation based on employers' ‘tastes for discrimination’.” (p. 177)

Further, Cain (1986) argued that there should be Pareto-improving arrangements that reduce testing error for blacks:

“If wage differentials are large merely because of differential test reliability, then both minority workers and employers have incentives to improve the tests and reduce this impediment to transactions. If,

² Criminal profiling is often uncannily accurate. See Schauer (2003).

as is sometimes reasonable to assume, the worker knows his or her own abilities, a low-cost private-exchange method of minimizing this impediment is for workers to offer a trial period of employment to demonstrate their true productivity. The cost to the worker is a low wage during the trial period, but the benefits are higher earnings throughout the worker's subsequent career." Cain (1986:727)

In another skeptical treatment of SDT, Darity (1989) contends that the informational "value added" of gender and race should go to zero in the long run:

"...the entrepreneur will recognize that profits are to be had by designing new instruments that will improve employers' capacity to evaluate job applicants regardless of the group from which they originate...Entrepreneurial energy will tear down any obstacles to the pursuit of profit (cf. the implications of Coase's work [1960] on externalities). If discriminatory wage gaps signal profit opportunities, entrepreneurial energy will seek, exploit, and ultimately destroy purely ascriptively based pay differentials." (Darity, 1989: 339-340)

Cain's version of the argument differs somewhat from Darity's by emphasizing the incentives of workers rather than employers, and by emphasizing the problem of differential test reliability (an approach which dates back to Phelps (1972)). However, both authors highlight the mutual costs of imperfect information and the possibility of a Pareto-improving deal (hence Darity's reference to the Coase theorem); Cain suggests a probationary period as one such arrangement.

Employers' Perceptions of Black Character

While most discussions of SDT focus on skills (especially, as of late, cognitive ability), it is even more likely that employers cannot directly observe a cluster of traits that we might call "character": "habits of action and thought that favor good performance in skilled jobs, steadiness, punctuality, responsiveness, and initiative." (Arrow, 1974b, p. 97) When jobs require few skills, these habits are probably paramount: is the checkout clerk in the grocery store going to show up on time and move customers through the line expeditiously? Will an assembly line worker take too many unscheduled absences? Will she pay attention to quality? Will he show up hung over on Monday morning? Is she going to pilfer inventory or cash? Work ethic is also

critical when monitoring is difficult (Huang and Cappelli, 2006). Character is indisputably at the heart of incomplete labor contract enforcement problems.

Two things may be noted about employer views on black character. First, they are quite heterogeneous, but, second, they are overall decidedly negative relative to other ethnic groups. Interviews in the early 1990s of Chicago employers seeking to fill unskilled, entry-level positions, found that the “employers view[ed] inner-city workers, especially black men, as unstable, uncooperative, dishonest, and uneducated.” They characterized black workers as having a “bad work ethic”, creating tension with coworkers, being “lazy and unreliable”, and having “a bad attitude”. “When asked directly whether they thought there were any differences in the work ethic of whites, blacks and Hispanics, 37.7 percent of the employers ranked blacks last, 1.4% ranked Hispanics last, and no one ranked whites there. Another 7.6 percent placed blacks and Hispanics together on the lowest level; 51.4% either saw no difference or refused to categorize in a straightforward way.” (Kirschenman and Neckerman, 1991, pp. 204, 210, 213)³

Similarly, in their interviews of employers of entry-level workers in four major U.S. cities, Moss and Tilly (2001: p. 97) found that by far the greatest complaint about black workers was that “blacks have lagging motivation” (33.4% of the employers agreed with that); employers agreed with that statement far more often than “blacks have lagging hard skills” (20.3%), and “blacks have lagging interaction skills” (14.6%). Furthermore, employers viewed black motivation much more negatively than they did that of other ethnic groups. Only 5.4% of the employers said that Latinos had lagging motivation, and 0.3% of them said that Asians exhibited this deficiency.

These racial stereotypes are important because motivation and honesty are critical to employers. According to Holzer, Raphael and Stoll (2002, Appendix Table A1), more than 70%

³ Charles Johnson’s surveys of employers for the National Urban League in the 1920s found a similar variety of employer opinion. (Johnson, 1930)

of employers of noncollege workers thought that motivation was a very important requirement of new employees. In Kirschenman and Neckerman's interviews of Cook County employers, work ethic "loom[ed] large among the concerns of employers." (p. 210) A Census Bureau survey of 3,000 employers found that they rank "attitude" as more important than specific skills or academic performance. (Bowles, Gintis, and Osborne, 2001)

Employers are also concerned about dishonesty. Although the threat of employee theft is often exaggerated, the National Retail Security Survey placed the value of employee theft in the U.S. retail industry alone at \$15.1 billion in 2001 (about 0.8% of sales, and nearly three times the cost of larceny reported to the FBI). (Hollinger and Davis, 2002; Federal Bureau of Investigation, 2002) Anonymous surveys have identified a fairly large number of employees who admit to occasional theft, although it tends to be infrequent and to involve relatively small amounts. Hollinger and Clark (1983) found that 41.8% of retail workers admitted to stealing; 32.2% of hospital employees, and 26.2% of manufacturing sector workers did so as well. Slora (1991) found that one-fourth to one-third of sampled fast food and supermarket workers admitted to at least occasional cash or property theft (other than eating food). In a study of one call center's employees working under an incentive pay scheme (Nagin, *et. al.*, 2002), a significant subset of workers made more suspicious claims for successful solicitations when they believed the monitoring rate was lower.

Honesty also matters to employers because it is correlated on personnel tests with conscientiousness (which I take to be part of what employers have in mind when they are discussing motivation, work ethic, or attitude). (Ones, Viswesvaran, and Schmidt, 1993; Sackett and Wanek, 1996; Hogan and Brinkmeyer, 1997) Also, not surprisingly, employers' views on racial differences in honesty are similar to their views on motivation. Dishonesty was included in the employers' litany of complaints about unmotivated blacks expressed to Kirschenman and

Neckerman (above). They also recorded the following exchange with a suburban drug store manager:

“It’s unfortunate, but, in my business I think overall [black men] tend to be known to be dishonest.

I think that’s too bad but that’s the image they have.

(Interviewer: So you think it’s an image problem?)

Yeah, a dishonest, an image problem of being dishonest men and lazy. They’re known to be lazy... Whether they are or not, I don’t know, but, it’s an image that is perceived.

(Interviewer: I see. How do you think that image was developed?)

Go look in the jails. [laughs].” (Kirschenman and Neckerman, 1991, p. 221)

Employers’ doubts about black honesty, along with customer antipathy, retarded the entrance of blacks in the northern retail industry after World War II. (Sugrue, 1996) Evidence of employers’ views on black honesty and criminality also comes more indirectly from the observation that firms hire more blacks when they use criminal background checks (while controlling for the black application rate); evidently, the background checks induce employers to discount their fears about black job applicants who do not have criminal records. (Holzer, Raphael and Stoll, 2002)

How Employers Test for Character

Tests or other screening mechanisms are critical components of most versions of SDT and their sequelae (Arrow (1973), Phelps (1972), Lundberg and Startz (1983), Coate and Loury (1993)). Take for example Phelps’ exposition of the screening problem. He started with an equation relating test scores (y_i) to worker quality or productivity (q_i):

$$q_i = ay_i + u_i; \text{ where the variables are in deviation form and } E(u_i) = 0$$

and an equation describing employer beliefs about the relationship between race and quality:

$$q_i = \alpha + x_i + \eta_i, \text{ where } x_i = (-\beta + \varepsilon_i)c_i.$$

Each equation contains an error term, u_i and $\eta_i + c_i \varepsilon_i$, respectively. If the job applicant is black, $c_i=1$. Phelps presented three possible scenarios of statistical discrimination, two of which have received a great deal of attention since then:

Phelps case (1): There is no racial difference in expected quality ($\beta=0$), but the variance of white test scores is lower than the variance of black test scores. This makes the white curve relating q' to y' steeper than the corresponding black curve. Employers weight the individual component of productivity less, and the group component more, than they would with better tests or signals.⁴ Further, because the white curve is steeper, the return to investment in unobservable productivity is lower for blacks, and lower black mean productivity arises endogenously. (Lundberg and Startz, 1983)

Phelps case (2): Employers believe that black qualifications are lower ($\beta>0$) than white qualifications for a given test score, because of black disadvantages in upbringing. In this case, the curve relating q' to y' shifts down by β . If also $\varepsilon_i \equiv 0$, and $var(u_i)_W=var(u_i)_B$, the slope of the black line is the same as the slope of the white line. Blacks get uniformly lower wage offers because, given black social disadvantage, employers believe their test scores are likely to overestimate actual black productivity: $E(q|y)_B < E(q|y)_W$. Phelps suggested that “skin color or sex is taken as a proxy for relevant data not sampled.” (p. 659) This version is close to the standard textbook treatment of SDT.

Employers have access to a lot of individualized test data that social scientists generally do not, from written tests, reference checks, interviews, probationary periods, etc. The skeptics' rejection of SDT, then, rests to some extent on their confidence in the ability of employers to design or demand effective screening mechanisms.

⁴ Aigner and Cain (1977) formulated a variant of the Phelps model with risk aversion, although risk aversion is not required to get Phelps' results.

“the informational assumption ...[of SDT] suggests that selectors are incapable of making a sound approximation about a candidate’s future potential to perform without relying on the additional signal of group affiliation. This is implausible given the vast resources corporations devote to hiring decisions and the design of screening mechanisms. Over time, an appropriate set of questions or tests should emerge that will facilitate selection, regardless of group affiliation.” (Darity, 1998: p. 807)

But a brief survey of the tools employers actually use for assessing honesty and work ethic will demonstrate that their utility is fundamentally limited, creating an informational vacuum in which employers will be disposed to consider other factors, including race.

Consider first written tests. There are many commercially available integrity tests (also called honesty tests), which proliferated after the national ban on polygraph testing for employment in 1988. In the early 1990s, about 6,000 organizations administered about five million integrity tests annually (Camara and Schneider, 1994), compared to 6.3 million job openings reported to state employment agencies in 1993. (U.S. Census Bureau, 2000) Twenty-eight percent of retail employers responding to the National Retail Security Survey (2005) said that they used these paper-and-pencil instruments. Such tests inquire about past theft (e.g., how much someone has stolen from their employers in the past), attitudes toward theft (e.g., whether the respondent thinks it’s always wrong to steal from the employer), attitudes toward risk, and so forth. Scores on these tests are also well known to be associated with conscientiousness. (Ones, Viswesvaran, and Schmidt, 1993; Sackett and Wanek, 1996; Hogan and Brinkmeyer, 1997)

The first limitation of integrity tests is that they only approximate the test characteristic under clinical, not real-life, conditions. Although some psychologists regard honesty as a basic aspect of personality that is relatively impervious to situational factors, the balance of evidence suggests that honesty is neither a purely dispositional nor a purely situational characteristic. (Sackett and Harris, 1985) As such, there is inevitably an underlying decision rule about how behavior under test conditions corresponds to behavior in specific work environments (Murphy,

1993), with specific technologies, systems of monitoring, penalties for poor performance, work norms, supervisors, and labor market conditions. The same person can behave quite differently than predicted if his coworkers look the other way when he steals, if employee morale is low, if monitoring is relatively difficult, and if alternative jobs are easy to come by.

Second, independent research about the quality of many commercially distributed tests, and about the care with which the tests are applied, is rare. Most validation studies of honesty tests have been conducted by the test publishers themselves. (Sackett and Wanek, 1996) The raw materials of test validation research are in most cases proprietary information. “It is unlikely that the credibility and quality of research will increase until publishers open up the research process and encourage independent research.” (Camara and Schneider, 1994: p. 115)

Third, tests are often misused, and employers are often poorly trained to interpret test results. Fifty-six percent of the integrity test publishers that responded to an American Psychological Association survey reported that they do not screen potential purchasers at all. (Camara and Schneider, 1994 and 1995) A similar problem arose some years before in polygraph testing. Although it was widely known that lie detector tests produce both Type I and Type II errors, employers’ misuse of lie detector tests was so pervasive that Congress passed the Employee Polygraph Protection Act in 1988. Reflecting similar concerns, quite a few states have outlawed other types of honesty tests for selection purposes. (Cooper and Robertson, 1995)

An economist might suspect a problem here: who will test the tester? Most unsuccessful job applicants have no further contact with the employer and little chance to figure out what went wrong, to compare notes with other jobseekers, or to evaluate the employer’s care in administering and interpreting test results. Employers cannot easily evaluate the counterfactual (would they have equally honest and motivated employees without the test?). Moreover, with long lines of unemployed and usually honest jobseekers, they typically care more about Type II

than Type I errors. The testing industry, which is supposed to reduce information problems, has imperfect incentives to provide high quality information itself.

Fourth, the ability of employers to test more effectively depends critically on the assumption that prospective employees cannot game the test. However, much research shows that many occupational honesty tests (unlike cognitive ability tests) are fakeable. “Overt” honesty tests (in which one is queried directly about stealing, drug use, etc.) are especially vulnerable to – well, dishonesty. Tests often (but not always) include lie scales to catch the fakers (Mercer, 1993; Cooper and Robertson, 1995; Murphy, 1993), but these are also vulnerable to manipulation by a skilled test taker.⁵ Sackett and Wanek (1996) noted that in several recent studies, when research subjects were instructed to fake an integrity test, they could raise their scores. Guastello and Rieke (1991) found that integrity test scores are positively correlated with scores on lie scales, and that predictive validity fell substantially when correcting for faking.

It’s not that good tests contribute nothing; in fact, they are significantly better than alternatives such as personal interviews. But their contributions are modest. In the most comprehensive meta-analysis of honesty testing to date, Ones, Viswesvaran and Schmidt (1993) found the mean operational predictive validity of 665 integrity tests for predicting supervisory ratings of job performance to be .41.⁶ But many integrity tests have not been validated carefully, or at all. (Camara and Schneider, 1995) Sackett and Wanek (1996) considered the most compelling studies to be those that tried to predict workplace performance, used a job applicant sample, and used non-self-report criteria. Only 79 of the 665 validity studies satisfied these criteria, and their average validities ranged from .09 (for the only seven studies of tests focused

⁵ Lie scales involve adding up the number of socially approved but implausible responses. For example, a test might ask whether the respondent has ever told a lie, or said anything about someone behind his back that they would not be willing to repeat to his face.

⁶ In this context, validity means correlation between test scores and performance measures, usually supervisor ratings or specific measures of detected counterproductive activity.

most directly on predicting honesty) to .27 (for tests predicting counterproductive workplace behavior more broadly defined). In the domain of employment testing, these validities are bad to mediocre. But even with a respectable average validity of .41, a lot of employees are misclassified. The U.S. Office of Technology Assessment reported that 95.6% of integrity test takers who fail are incorrectly labeled as dishonest, which suggests considerable opportunity costs for employers, besides the obvious consequences for test takers. (Rieke and Guastello, 1995)

So why not check someone's criminal record? Five-sixths of retail employers do so. (Hollinger and Langton, 2005) And employers who examine these records do hire more blacks, even when controlling for the racial composition of the applicant pool. This seems to be because the record check reduces employers' reliance on race as a signal, which swamps the effect of identifying more convicted blacks. (Holzer, Raphael, and Stoll, 2002) But criminal records are notoriously unreliable (Pager 2003) and this may be a particularly pronounced problem with commercial services that perform national searches. (Holzer, Raphael, and Stoll, 2002) And, of course, many criminals are never apprehended.

What about a drug test? Many employers associate drug use with theft. About one in five or six firms use drug or physical exams, and one-half of retail employers screen for drugs. (Holzer, Raphael, and Stoll, 2002; Hollinger and Langton, 2005) However, there is plenty of information on the internet about how to pass a drug test when you've been smoking pot. Since pot is fat-soluble, though, this takes some creativity. It's actually easier to hide cocaine and heroin use.

Employers can also ask for references, they can use probationary periods, and they can conduct interviews. Reference checks, used by about half of employers in 1982 (Holzer, 1987), and by three-quarters of employers in the National Retail Security Survey (2005), probably don't

resolve the problem entirely, either. Employers have incentives to hide information about their good workers from other firms. (Greenwald, 1986) Similarly, employers might present their undesirable employees in a favorable light, to get rid of bad apples while minimizing the hassle of terminating them. Recently, some firms have adopted policies of not providing references for former employees, fearing lawsuits. (Bewley, 1999; Altonji and Pierret, 1997) Most importantly, workers with zero job experience cannot present letters from previous employers, making imperfect information a particularly thorny problem at the beginning of one's working life. And while an unknown number of employers also solicit referrals from current employees, this is a procedure which favors job applicants with denser networks of employed friends and family members – not the typical ghetto teenager.

Retail employers are also increasingly likely to verify claims of educational credentials and prior experience on resumes, and to run checks of driving history and credit records. (Hollinger and Langton, 2005) I know of no efforts to validate these mechanisms, but they are also likely to be very noisy indicators of propensity to workplace theft or shirking. Credit and driving records will not even be available for the very young.

On-the-job screening seems more promising, closer to the ideal of “what you see is what you get”. About two-thirds of employers in Holzer's 1982 sample in fact used probationary periods. (Temporary help services often play a similar role.) But employers must bear the costs not just of wages and training, but also of probationary employees' mistakes or malfeasance, and the costs of supervision and liability. These are offset to some extent by lower wages during the trial period. However, a fundamental problem remains: someone determined to game the system will be on her best behavior during the probationary period. Union contracts, formal personnel procedures, civil service regulations, individual contracts, case law on unreasonable discharge, and considerations of collective worker morale all make it more difficult to dismiss an employee

after the probationary period, or to reduce compensation, so there is little incentive for opportunistic workers to continue the same degree of effort, honesty, or cooperation upon becoming fully vested in the job. A probationary period is not a clearly superior alternative to a pre-employment test; the ratio of marginal product to cost may not be more favorable for probation than pre-employment testing.

The most common screening device of all, the personal interview, is also the most problematic. Five out of six employers in Holzer's 1982 sample used interviews. Almost nine out of ten employers in the Multi-City Study of Urban Inequality (1992-1994) used interviews. More employers used interviews than physical exams, probationary periods, reference checks, pre-employment tests, criminal checks, written applications, and references. (Holzer, 1987; Stoll, *et.al.*, 2004) The personnel literature raises many concerns about the validity of interviews. Holzer (1987) found that interviews (as well as reference checks and probationary periods) had little predictive value for a manager's rating of a new hire's productivity relative to other employees; if anything, the relationship was generally negative. In the personnel psychology literature, their validity is also very low, typically below 0.2. (Herriott, 1989; Cook, 1988; Schmitt and Chan, 1998; Mercer, 1993; Arvey and Campion, 1982) There is an interesting and important pattern here, with employers demonstrating the greatest confidence in interviews, the least valid form of screening.⁷ (More on this later.)

There are indeed some better tools for assessing character. Surveillance and FBI-type background checks are far more accurate than integrity testing, references, and interviews, but they are very expensive, limiting their use in the low-wage labor market. They are also very invasive, and as such they could foster tremendous resentment among potential employees.

⁷ There are other reasons for the popularity of interviews, such as the opportunity to sell the organization to the job applicant. Interviews can also be improved with more formal design. But interviewers typically have access to more valid predictors (resumes, references, etc.), and part of the measured predictive validity of the interview is doubtless due instead to these other factors. (Ulrich and Trumbo, 1965)

Innovations in screening may change the tradeoff between costs and effectiveness, but the improvements are likely to be modest given the formidable challenges inherent in assessing character.

Two main points follow from this summary of screening. First, “any testing operation, even a trial period, is some form of personnel investment” (Arrow, 1974, p. 96), whose expected yield depends on predictive validity. Even the most rigorously validated mechanisms for assessing character involve a formidable amount of testing error, especially for the young who lack experience and labor market connections. If there are diminishing returns to particular methods, they become more costly as they are applied to increasingly ambiguous cases. Given the weakness of any individual job applicant’s signals about honesty or work ethic, the hiring decision seems to involve a substantial degree of Keynesian uncertainty, in which agents simply cannot form mathematical expectations. “The outstanding fact is the extreme precariousness of the basis of knowledge on which our estimates of prospective yield have to be made.” (Keynes, 1964, p. 149) While the possibility of *no* mathematical expectation sounds peculiar to modern ears, a more plausible reformulation would simply describe a large confidence interval for the prediction of quality, where the noise drowns out the value of the correlation between test results and quality. I suggest that employers’ expectations are much closer to this scenario than to one in which prospective quality is so well understood that race is irrelevant. As such, employers, like investors, respond by invoking heuristics of dubious validity, which will be “compatible with a considerable measure of continuity and stability in our affairs, *so long as we can rely on the maintenance of the convention.*” (Keynes, 1964, p. 152, emphasis in original) Because honesty and conscientiousness can be faked in the screening process, the informational problem is more vexing for the appraisal of character than ability, and stronger ability signals do not help:

integrity test scores are largely orthogonal to cognitive ability scores. (Ones, Viswesvaran and Schmidt 1993)

Second, employers rely most heavily on the least valid form of screening, the personal interview, which is often the first opportunity for the employer to directly appraise the person associated with the observable credentials. The fact that employers are overly sanguine about their own judgment in these face-to-face encounters should not be surprising; psychologists have repeatedly documented a clear human bias toward overconfidence in one's own opinions. (For example, see Fischhoff, Slovic, and Lichtenstein (1977).) The way that employers read and utilize data from interviews is therefore of considerable interest, and will be discussed below in conjunction with more sophisticated treatments of SDT than the simple textbook version.

One final consideration involves the role of equal opportunity and affirmative action requirements. Darity and Mason have argued that "If average group differences are real, then *in a world with antidiscrimination laws*, employers are likely to find methods of predicting the future performance of potential employees with sufficient accuracy that there is no need to use the additional 'signal' of race or gender." (1998, p. 83, emphasis mine) Indeed, affirmative action is associated with more rigorous screening procedures, and more formalized personnel procedures with greater hiring of minorities. (Holzer and Neumark, 2000; Bielby and Baron) But if some employers are firmly convinced that blacks are more dishonest at work, antidiscrimination laws will motivate these employers to substitute indicators that are strongly correlated with race. (Lundberg, 1991) These include marital status, residential zip codes, and names (Kirschenman and Neckerman, 1991; Bertrand and Mullainathan, 2004). Legal precedents about disparate impact would seem to render many of these mechanisms legally suspect, but the government has an information and enforcement problem of its own that overlays the firm's information problem.

My point is simply that our inability to get more than modest results from common, longstanding screening procedures for character, leaves an informational vacuum – and an equal opportunity enforcement vacuum – in which prior conceptions of racial differences can flourish. When screening is especially costly or uninformative, when the perceptual muck is especially thick, the inclination to rely on cheap and historically salient indices, such as race, can be very strong.

How Workers Send Signals

High-quality workers have strong incentives to volunteer for tests. However, it takes quite a bit of infrastructure for firms to have confidence in the tests. It won't help a worker on her own to volunteer for a test that the employer has no experience with, or that doesn't bear the imprimatur of an ostensibly scientific test publisher. And workers can't easily volunteer for a probationary period that the employer has not established already (resolving issues of supervision, liability, etc.). Furthermore, unions, who have done so much historically to rationalize – indeed, create – internal labor markets (Jacoby, 1985), rarely have any control over the external selection process, because job applicants are not bargaining unit members.

When the infrastructure does exist, jobseekers do try to project good signals: they invest heavily in education; they join the military; they get tips from friends and relatives on how to present themselves positively in interviews; they take temporary jobs that enable the employer to observe them first-hand. Applying for a low-wage job often means *de facto* volunteering to take a test: the millions of integrity tests that are administered annually, or the General Aptitude Test Battery which is also taken by millions of job seekers each year through the U.S. Employment Service. (Sackett and Wilk, 1994) Workers do take advantage of available signaling opportunities, but they can't create credible signaling devices on their own.

Racial Differences in Testing Error and Mean Quality

In this section I investigate the empirical basis for inferring racial differences in the mean of work ethic and honesty, and the variance of testing error. Is there any evidence to suggest that the noise-to-signal ratio in screening for character is higher for blacks, as the first Phelps scenario suggested? Is there any indication that black workers actually do have lower mean honesty and work effort, as the second Phelps scenario would require?

Phelps case (1): Racial differences in testing error. The most direct kind of evidence for the error variance hypothesis would show that the white curve relating productivity to test scores is steeper than the corresponding black curve, with employers thinking that whites are more qualified at high test scores and blacks more qualified at low test scores. There is no such evidence concerning honesty or motivation.

But there are many reasons to suspect a racial difference in testing error, and plenty of experimental evidence. Blacks are less likely to have personal contacts within firms than whites, and these personal contacts could provide information about applicant quality with relatively low error. Also, cultural miscommunication may reduce the ability of white hiring agents to read the signals of black job applicants, resulting in job segregation (Lang, 1986), or a lower black probability of being hired (Cornell and Bradford, 1996). Personal interviews are particularly susceptible to miscommunication, arising perhaps from group differences in linguistic conventions or body language. More importantly, social psychologists have found that one of the more automatic components of human cognition is the strong tendency to see same-group members as more heterogeneous and out-group members as more homogeneous. (Fiske, 1998) Also, white social discomfort in the presence of blacks seems to increase the extent of random error. Word, Zanna, and Cooper (1974) found that white subjects conducting mock interviews with trained black applicants made more speech errors, asked fewer questions, and ran shorter interviews than with similar white applicants.

Aigner and Cain (quoted earlier) argued that employers should be able to reduce excess noise from black signaling, and this view receives some support from two lines of work. First, there is some evidence that employers have trouble reading black signals of cognitive ability early in their careers, but develop more information as workers gain more experience. (Pinkston, 2006) Employers probably also learn through experience about character, although to a lesser extent because dishonesty and shirking are relatively easily concealed. Second, black hiring officers seem to do a better job reading own-group signals. Stoll *et. al.* (2004) and Raphael *et. al.* (2000) found that black hiring officers hire somewhat more black workers (after controlling for the black application rate), despite the fact that they are more likely than white hiring officers to work in firms with stricter hiring requirements and screening methods. Blacks are also more likely to supervise other blacks (Smith and Elliott, 2002) These observations may support the notion that some employers have discovered the value of “bilingual” blacks as interpreters: they speak “black” in the presence of blacks, they speak “white” in the presence of whites, and they move more easily across the racial linguistic and cultural divide than whites. (Ogbu, 1999) (Of course, other interpretations are possible, too.) However, when the issue specifically is character, there is anecdotal evidence that blacks sometimes succumb to the same kinds of stereotypes that whites do.⁸ While it should surprise no one that blacks read black signals better than whites, it is also reasonable to suppose that blacks sometimes adopt the same racialized conventions as other Americans.

⁸ I’m going out on a limb here, but consider the following. The Reverend Jesse Jackson told a *Washington Post* reporter, “There is nothing more painful to me at this stage in my life than to walk down a street and hear footsteps and start thinking about robbery – then look around and see somebody white and feel relieved.” (quoted in Tonry, 1995) Barack Obama recounted his experience of blacks stigmatizing blacks, starting with an episode in which a black woman, Ruby, began to wear blue contact lenses: “Ruby shook up this predisposition of mine, the wall I had erected between psychology and politics, the state of our pocketbooks and the state of our souls. In fact, that particular episode was only the most dramatic example of what I was hearing and seeing every day. It was expressed when a black leader casually explained to me that he never dealt with black contractors (“A black man’ll just mess it up, and I’ll end up paying white folks to do it all over again”); or in another leader’s rationale for why she couldn’t mobilize other people in her church (“Black folks are just lazy, Barack – don’t wanna do nothing”).” (Obama, 2004, p. 194)

Phelps case (2): Racial differences in mean quality. Phelps suggested that blacks may have lower unobserved quality than whites, given test scores, because of social background. However, there are no differences in the mean integrity test scores or pass rates of blacks and whites.⁹ (Sackett and Harris, 1985; Sackett and Wanek, 1996; Ones et. al., 1993) Although scores on these tests are often poorly correlated with measures of counterproductive workplace behavior, there is little reason to suspect that they are racially biased.¹⁰ We can infer some supporting evidence for this by looking at two correlates of retail theft by employees: part-time status and turnover. (Hollinger, 2005) Blacks are less likely than whites to work part-time, and studies have typically not found that black turnover is higher. Blau and Kahn (1981), for example, concluded that racial differences in quit rates were not large after controlling for earnings, job tenure, unionization, and other characteristics. Similarly, using absenteeism as one admittedly imperfect measure of work ethic, race does not make a difference after controlling for earnings, scheduling flexibility, and health. (Allen, 1981) For a group of welfare recipients in four cities in 1998-99, Holzer *et. al.* (2004) found no significant differences between blacks and whites in absenteeism, or in other job problems (including attitudes, relationships with coworkers, and substance abuse), when controlling for a variety of human capital, establishment, and job characteristics.

I found no study asking whether race or social background is associated with theft at work. Nor is there ever likely to be a convincing one. Explanations based on social background would have to be distinguished from reasons that are *specific to the workplace*. Any observed

⁹ Group differences in pass rates may be sensitive to the cut score, but this issue is seldom raised. There is also the possibility of selection bias. This is addressed sometimes, to some extent, in validation studies, as when the sample consists of employees who were hired regardless of their test scores. (Sackett and Harris, 1985) This does not solve the selection problem completely, however, insofar as employers usually attempt to assess honesty before hiring decisions by using other means, such as the verification of claims of experience and education on resumes.

¹⁰ Test publishers may have incentives both to construct tests that provide accurate information to employers, and to minimize the appearance of lower black integrity, since any test with a black-white pass-rate ratio lower than 80% is subject to much greater scrutiny by the EEOC, as has been the case for pre-employment cognitive ability tests. (Joy, 1991, p. 82) However, I have found no indication in the literature that anyone is worried about this in practice.

group differences in the probability of stealing will depend on aspects of the employment relationship that are difficult to measure: the fallback position of workers in the event of dismissal, the degree of monitoring and the opportunity for theft, the size and structure of personnel incentives, and workers' perceptions of the firm's commitment to its employees. Each of these is likely to be correlated with race and socioeconomic background.

Social disadvantage is in large part a *deterrent* to workplace theft. This is best illustrated by considering the two-period value of the current job for the worker:

$V_t = [w_t + (1 - m)S_t] + r\{(1 - m)(w_{t+1} + S_{t+1}) + m[p(w_{At+1} + (1 - m)S_{At+1}) + (1 - p)T_{t+1}]\}$. In period t , V is a function of the wage w , plus the undetected amount of workplace stealing or slacking $(1 - m)S$, where m is the monitoring rate, assumed equal to the probability of dismissal,¹¹ and $S = s(\varphi, \pi, m)$. φ is the psychic disutility of S and π is the job-specific opportunity for theft or shirking for reasons other than the monitoring rate (e.g., it's easier to steal a wad of cash than a steel beam). If someone scrupulously adheres to norms against theft, then $\varphi > 0$, and $\partial S / \partial \pi = \partial S / \partial m = 0$. The discount rate is r ; the probability of finding another job, given dismissal, is p ; T_{t+1} is non-employment income.

Based on V_t , the following mean racial differences in the propensity to steal or slack may be noted. (1) Black alternative employment prospects p are worse than those of whites, since their unemployment rate is twice as high. The racial wage gap is not as large as the employment gap, so the value of the current job is likely to be greater for blacks, with correspondingly lower incentives for blacks to steal from employers.

(2) There is a racial difference in m : blacks work less independently and are monitored somewhat more closely than whites. (McCrate, 2005; Lucas, 1974; Tomaskovic-Devey, 1993)

¹¹ The probability of dismissal is almost identical to the probability of apprehension in the case of retail theft. (Hollinger, 2004)

Blacks will be caught stealing or shirking more often than whites of comparable rectitude and diligence. Black workers also have less control over their schedules. (McCrate, 2005) As such, they are more likely to be noticed and penalized at work for lapses in attendance or punctuality, relative to whites with similar records.¹²

(3) There is also a racial difference in π : blacks are underrepresented in jobs that present lucrative opportunities for financial fraud (including what fraud examiners delicately refer to as “misappropriation of assets” for personal use): bookkeepers, internal auditors, fiscal officers, and executive officers. These jobs arguably present greater opportunities for damage to the firm than employee theft of cash or merchandise. The Treadway Commission’s careful study of firms subject to enforcement actions by the Securities and Exchange Commission found that the median financial statement misstatement or misappropriation of assets was \$4.1 million, compared to the median company’s total assets of \$16 million, and that the typical perpetrator was a highly placed executive. (Committee of Sponsoring Organizations of the Treadway Commission, 1999) The Association of Certified Fraud Examiners (2004) estimated (very loosely) that employee fraud in the U.S. cost \$660 billion in 2003, about 6% of an organization’s total revenues. This dwarfs the magnitude of employee theft of merchandise or cash in the retail sector (0.8% of sales (National Retail Security Survey)), where blacks are more commonly employed. Financial fraud also frequently results in bankruptcy, financial penalties, changes in ownership, and delisting by national exchanges. Blacks seldom have opportunities for such exorbitant dishonesty.

¹² Blacks would, however, be more likely to miss work or quit jobs to the extent that race is associated with unreliable transportation or childcare, lending some credence to the second Phelps scenario. The Phelps idea would also receive additional support if blacks skip work or quit their jobs more often because of worse job matches – for example, if supervisors or coworkers are uncooperative. However, recall that race was *not* a significant predictor of turnover and absenteeism in the Allen, Blau and Kahn, and Holzer studies, despite the fact that these studies did not control for transportation, childcare, and quality of job match. Their estimates are therefore conservative. Black workers are not so much missing work due to these problems as they are getting to work in spite of them – not surprising behavior for a group that has more to fear from unemployment.

Employers' Prior Expectations of Character and Self-Fulfilling Racial Stereotypes

Doubtless there are employers who simply can't read the signals of blacks (perhaps some of the employers who tell social scientists that they see no clear racial differences in work ethic). To suppose otherwise would be contrary to volumes of experimental psychological evidence that observers overestimate other-group homogeneity. But even if intercultural miscommunication makes black signals noisier than white signals, this doesn't mean that black signals are interpreted neutrally. Social psychologists have found that perceptions of outgroup homogeneity are associated with stereotyping; people who believe there is little outgroup variance also make stereotypic judgments about outgroup members more readily than people who perceive more outgroup variance. (Fiske, 1998) The problem is not just noisy signals, but the way that agents handle noise when race is involved.

Stereotypes strongly influence the assessment of ambiguous signals (Darley and Gross, 1983), precisely the type that are likely to be projected in the ubiquitous but notoriously low-validity hiring interview. Even though observers may not be willing to categorize people as dishonest or lazy solely on the basis of race or socioeconomic background, they seem to form hypotheses about group-specific dispositions that they then regard as confirmed by ambiguous signals. A listless white interviewee, for example, may be seen as tired or having a bad day, while a similar black interviewee may be viewed as unmotivated. Ambiguity is a constant theme in psychological literature on the factors triggering stereotyping. (Fiske, 1998)

This anomaly for the error variance model, the willingness of many employers to interpret noisy black signals in a way that is qualitatively different from noisy white signals, provides a starting point for a distinct tradition of SDT based on employers' conditional expectations of black and white productivity. The first of these models were developed by Spence (1974) and Arrow (1974). In both models, employers' priors concerning black and white

unobservables are incorporated in wage offers. Black workers respond to any negative expectations embodied in wages by investing differently in signals (Spence) or skills (Arrow). Labor market equilibria are not unique in these models, and black and white wages could easily end up at different equilibria as a result of the initial probability assessments of employers, not because of initial differences in the distribution of productivity.

Following Arrow and Spence, Coate and Loury (1993) developed an account of “self-confirming racial stereotypes” in a job assignment model. An employer’s posterior probability that a worker is qualified for a more responsible¹³ and desirable job is a function both of an applicant’s signal θ (such as a test score), and the employer’s own beliefs or stereotypes about the worker’s group (π_i). The employer assigns workers to the more responsible job if and only if $\theta \geq s^*(\pi)$. The cutoff s^* is decreasing in π , because the employer gives the benefit of the doubt to applicants she believes are more likely to be qualified. For workers, the net benefit of investing in the necessary traits depends on the employer’s cutoff; Coate and Loury assume that there is little point to investing when standards are very high or very low, and thus the percentage of workers who are qualified for the more responsible job, initially increases, then decreases with s^* . Equilibrium occurs when employers’ expectations about group i ’s qualifications are consistent with workers’ investment behavior given s^* , which is itself contingent on the employer’s prior beliefs about the group’s qualifications. Because of the shape of the functions describing worker and employer behavior, and assuming that employers update their priors based on worker behavior in the previous period, there are potentially multiple stable equilibria. As in Arrow and Spence, different equilibria may be associated with different groups. Thus if firms initially believe that blacks are less qualified than whites, workers invest so as to confirm the

¹³ Coate and Loury differentiated the two jobs based on skill, not level of responsibility. But since I’m considering honesty and work ethic, I have made this alteration.

expectations. Blacks come to have the traits that are associated with them, simply because others expect them to be that way, whether that is initially correct or not.

Evidence on Self-Confirming Stereotypes

Certainly blacks are stereotyped as dishonest starting at a very young age. In her field work in an integrated elementary school, Ferguson (2001) found that teachers had characterized a group of black male *ten-year olds* as budding felons (“bound for jail”, “unsalvageable”, “he’s on the fast track to San Quentin”, “that one has a jail-cell with his name on it”(pp. 9, 96)).¹⁴ And the self-confirming nature of stereotypes has been documented repeatedly by psychologists. For example, it can happen even within the interview process: in one experiment, coached white interviewers maintained more physical distance from black interviewees, gave them less interview time, and made more speech errors; these behaviors in turn elicited worse performance and greater physical distance by the interviewees. (Word, Zanna, and Cooper, 1974)

The self-confirming racial stereotype model concludes that people eventually conform to the dominant social expectations for their group. If blacks are expected to be less diligent or less honest, a substantial number will become so. This accords well with the Altonji and Pierret (1997) results of a negative and significant coefficient on black*experience, and a small, insignificant coefficient on black alone, in a wage regression using the National Longitudinal Survey of Youth. (Their own interpretation, however, is that employers are simply following the law by not initially screening on race, but developing knowledge about preexisting lower black quality over time.)

So, it is hard empirically to distinguish Altonji and Pierret’s employer learning model from a self-confirming stereotype model, and there is some *prima facie* support for either of

¹⁴ These black youngsters had committed no illegal acts at school; they rarely missed classes and were usually on time. They did get into fights. However, school personnel had not characterized similarly testy, rambunctious white boys as incipient criminals.

these. However, it is not immediately obvious that the self-confirming stereotype account can be reconciled with (1) the available evidence that black workers are just as honest as whites, and that their turnover and absenteeism are no worse than that of whites; and (2) the observation that social disadvantage is a deterrent to theft.

But the door is still open for a self-confirming stereotype account. There are three reasons for this. First, although the studies cited earlier found that race is not associated with absenteeism or turnover after controlling for wages, tenure, etc., these regressors were taken to be exogenous. If instead some part of their measured effect on quit rates and absenteeism is due to an unmeasured, stereotype-driven racial difference in quits and unscheduled absences on wages and job tenure, the estimates are biased.

A second way to reconcile the theoretical prediction of lower black quality with the empirical evidence is through the observation that social disadvantage can be a cause of theft or low effort, at the same time that it is a deterrent. The possibility of a correlation between theft and disadvantage is not because of need, which is subjective and relative. (Regardless of income level, Americans think they need about 25% more income than they earn (Levine and Rizvi, 2005); in that respect most of us, including CEO's and CFO's, have similar motivations for theft.) Rather, social disadvantage is more likely to contribute to theft or shirking because of workers' normative responses to punishment. Black effort and honesty remain suspect, and blacks are monitored more closely than whites. Consequently they will be caught and punished more often for the occasional petty theft or slacking that a fairly large number of employees of all races engage in. (McCrate, 2005) This has on the one hand a disincentive effect. But on the other hand, when punishment is exceptionally frequent or severe, workers respond normatively: shirking increases. (Fehr and Gächter, 2000; Bewley, 2000) While dishonesty is perhaps less likely to increase, because norms about honesty are less malleable than norms about work

effort¹⁵, some occupational psychologists do think that excessive reliance on negative incentives can also backfire here. (Murphy, 1993) Nagin, *et. al.* (2002) found that the tendency to falsely claim incentive pay (when workers believed they were not being closely monitored) decreased when employees felt that the employer was treating them well.

A third point to keep in mind when trying to reconcile the self-confirming stereotype model and the empirical evidence involves the question of what precisely is the relevant data in the distribution of honesty and effort. The Phelps tradition of SDT focuses on racial differences in the *expectation* or *variance* of worker quality or racial differences. The regressions reported above on absenteeism and quit rates concerned the conditional *expectation* of the dependent variable. But the self-confirming stereotype model concerns the worker with *marginal* screening data. In Coate and Loury, employers give the benefit of the doubt to white but not black applicants with test scores at the margin (near s^*). The Darley and Gross study also found that stereotypes are activated more often when there is ambiguity.¹⁶ A disproportionate share of young blacks is at the margin, with little employment history, few if any references, and minor criminal records. There is evidence from employment audits that white job applicants with minor criminal records get callbacks from employers significantly more often than blacks with similar records. (Pager, 2003)¹⁷ For those who do get hired, more intensive monitoring of black workers

¹⁵ WalMart tries to extend “hard” norms about dishonesty to work effort by impressing upon its workers the idea of “time theft” in initial training and continuing internal propaganda.

¹⁶ In conventional wage regressions with the usual human capital variables using recent data, the mean effect of being black is typically on the order of seven to twelve percent. (Altonji and Blank, 1999) Economists have been puzzled by the difference between these relatively small estimates, and the much greater evidence of discrimination that comes from employment audits (as in Pager, 2003; see also Turner, Fix and Struyk, 1991) Coate and Loury’s model suggests a way to resolve this conundrum. It centrally concerns the black worker with marginal test scores, not the average black worker. It predicts that statistical discrimination is concentrated at the margin. While regression studies have looked at race effects for the mean black worker, employment audits have used young testers presenting relatively limited resumes, a much more marginal group.

¹⁷ Pager also found a slightly higher probability of a callback for a white tester with a criminal record than a black tester without a record, but this difference was not statistically significant. It should also be noted that her results are not inconsistent with the results that employers are more likely to hire blacks when they use criminal background checks (Holzer, Raphael and Stoll, 2002), because here the improvement in black hiring happens among those who do not have a record.

will result in greater detection of infractions, in turn leading to fewer promotions, fewer good references, and a greater probability of dismissal. In turn, many unemployed or marginally employed black youth will see less reason to follow the straight and narrow road. Young blacks at the margin, relegated to the growing pool of blacks whose connections to the formal economy are eroding, become what employers fear. The growing proportion of young blacks with criminal records (because of the war on drugs, which has been excessively targeted at black communities (Tonry, 1995)) has indeed contributed to their declining attachment to the formal economy. Lagged incarceration rates have reduced the employment of young black men by about two to four percent in the last twenty years, and labor force participation by about three to five percent. (Holzer, Offner, and Sorensen, 2005) And when they disappear from the labor force, they also disappear from our data. Self-confirming stereotypes have arguably done their greatest damage among those whom we are least likely to find in wage, employment, or screening data.

Why Doesn't the Market Punish Statistical Discriminators?

There are several reasons for this. First, expected differences in employee quality arise endogenously. Second, much of the opportunity cost of stereotyping is externalized onto black workers. Third, human cognition is vulnerable to the ill-founded notion that recent patterns will persist, regardless of the underlying causes. Fourth, coordination problems inhibit firms from acting to stop stereotypes.

Endogenous differences in quality. In both the Lundberg and Startz (1983) model based on differences in error variance, and the Coate and Loury (1993) model based on employers' priors, the market never penalizes firms for their errors. Instead, blacks come to have the traits that are associated with them, even though that is initially not the case.

External costs. When unobserved worker quality is endogenous, as in Coate and Loury (1993) or Lundberg and Startz (1983), firms do not take into account the benefits that would

accrue from improving black workers' incentives to increase their unobserved productivity. Furthermore, in order to compensate for the discounting of their unobservable skills or the greater noise in the test data for blacks, high-productivity blacks have incentives to invest more in observable signals, such as education. (Lang 1990) After controlling for socioeconomic background, blacks do get more college education than whites. (Griliches, 1977; Haveman and Wolfe, 1994; Mason, 1997) This is a Coase-like Pareto-improving strategy, but like all Coase solutions, it is hardly distribution-neutral. The costs of information problems can be largely externalized to blacks, who have to invest more than whites in observable signals to get equivalent labor market outcomes, but who have fewer resources to do so.

Cognitive failure. Keynes observed that a fair amount of stability can be maintained in markets as long as conventions remain intact. A persistent human tendency to think that the future will resemble the past, without considering the reasons for recent patterns, buttresses such conventions. (Tversky and Kahneman, 1974) If observers think that blacks are exogenously less honest or motivated, they see little reason for change – and they certainly do not perceive their own role in contributing to self-fulfilling racial stereotypes. Hence Loury's notion of "biased social cognition" (2002): observers mistake endogenous differences in group performance for exogenous differences. Thus, while Keynes' financial markets are characterized by the periodic collapse of reigning conventions, racial stereotyping has been much slower to recede.

Coordination problems. Although stopping a self-confirming stereotype in its tracks is Pareto superior to leaving it unchallenged, Loury points out that most firms, as "competitive observers", cannot affect worker investment incentives by examining their own stereotypes or job assignment practices, because they cannot affect overall social stereotypes by themselves. Smaller observers, such as some small firms, also do not have the resources to collect large amounts of data systematically and process it under alternative assumptions. (Schauer, 2003)

Loury (2002) further argues that “monopolistic observers”, such as very large firms, who do have the “power to create facts” (p. 40), are typically disinterested in experimenting with alternative explanations of racial inequality. The problem lies not so much at the level of *inference*, “the *quantitative* calculation of parameters from the available data”, as it does at the level of *specification*, “the *qualitative* framework guiding an agent’s data processing” (pp. 45-46), which is logically prior to inference. In short, what’s missing is the *cognitive means* to recognize a social problem, and thus to recognize a profitable opportunity. This doesn’t mean that employers’ perceptions cannot change. However, that kind of change – which would involve highly self-conscious consideration of the way that agents unconsciously interpret ambiguous and incomplete information – is the result of an overwhelming anomaly, a shocking event that unhinges a specification, or a lengthy process of reflection. The latter is not likely to be encouraged when the beliefs of everyone else in the same symbolic community are virtually identical, and virtually no social institutions other than academia (at times) encourage it. Therefore, observing agents are likely to be cognitively disabled, unable to distinguish endogenous from exogenous patterns, even unable to see opportunities for competitive advantage. The problem is not restricted to agents who readily state that blacks are dishonest or lazy. It extends to anyone who needs to process ambiguous signals, who has not carefully and self-consciously evaluated her own specification. “The image of the perceiver as a hypothesis tester is certainly more appealing than that of a stereotype applying bigot, even though the end result of both processes, sadly enough, may be quite similar.” (Darley and Gross, 1983, pp. 32-33)

Racial Stigma

For Loury, this problem of specification is greatly compounded by stigma, the visceral sense of a separate and unequal humanity between whites and blacks. When the stigma concerns

character, blacks' perceived moral deficiencies seem to be causing their own problems, and whites seem to have no role. Stigma excludes blacks from the moral community, those we are obliged to help, and those from whom we in turn expect assistance.

In particular, racial stigma, and the stereotypes of dishonesty and laziness, seem to exclude blacks from what we might call a "community of reciprocity" in the workplace. In this community, employers share surplus with their workers, and workers respond with greater effort. (Fehr and Gächter, 2000) All the stylized facts about African Americans in the workforce – lower wages, higher unemployment, more monitoring, less autonomy and independence at work – suggest that employers are more likely to adopt a strategy of motivating blacks through explicit punishment rather than through reciprocity. This has a long and sordid history. Southern planters, from the eighteenth century and well into the 20th century, relied heavily on negative incentives for performance. Planters were utterly convinced that blacks would not work without coercion. One investigator who surveyed white opinion for President Andrew Johnson in 1865 reported:

"In at least nineteen cases of twenty the reply I received to my inquiry...was uniformly this: 'You cannot make the negro work without physical compulsion.' I heard this hundreds of times, heard it wherever I went, heard it in nearly the same words from so many different persons, that at last I came to the conclusion that this is the prevailing sentiment among the southern people.'" (Schurz, 1865, quoted in Ransom and Sutch, 1977, p. 21)

Workers' effort levels respond negatively in response to explicit punishment; experimental evidence suggests that "explicit [negative] incentives may 'crowd out' reciprocal effort choices" (Fehr and Gächter, 2000, p. 171), even to the extent that a punishment strategy is less efficient than a reciprocal strategy. These authors found that the aggregate surplus to be shared between employers and workers was smaller when employers used explicit fines for shirking, but that employers' profits were higher because of lower reliance on generous wage

offers. To the extent that the stigmatization of blacks results in lower wages and greater punishment, black workers bear most of the burden of stereotyping.

Conclusion

Honesty and work ethic are extraordinarily difficult to screen for. In addition, employers have a definite preference for screening through the least efficient mechanism, the personal interview. The tremendous amount of uncertainty involved in assessing character leads employers to fall back on racialized conventions about black laziness and dishonesty in the evaluation of the ambiguous signals that abound in interviews and other testing mechanisms, even when employers are unwilling to act as overt bigots. Employers, like the rest of us, do not interpret perceptual data in a racial vacuum. Young black people, whose track records in the workplace are scant to nonexistent, are particularly vulnerable to such stereotyping, even more so if they have minor criminal records. Racialized conventions are quite stable, despite their inefficiency in a number of respects, because they are difficult to disconfirm, and they lead to self-fulfilling prophecies. In the case of honesty and work ethic, there is close to a “perfect storm” of exceptionally strong historical stereotypes and exceptionally ambiguous information. Young black people with little education, little experience, and few connections, are becoming daily more entangled with the criminal justice system, and more isolated from the formal economy, with fewer incentives and means to seek a way back.

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