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Behavioral Economics and Perverse Effects of the Welfare State

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Abstract:
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> The most compelling explanation for the marked shift in the fortunes of the poor is that they continued to respond, as they always had, to the world as they found it, but that we — meaning the not-poor and un-disadvantaged — had changed the rules of their world. Not of our world, just of theirs. The first effect of the new rules was to make it profitable for the poor to behave in the short term in ways that were destructive in the long term. Their second effect was to mask these long-term losses — to subsidize irretrievable mistakes. We tried to provide more for the poor and produced more poor instead. We tried to remove the barriers to escape from poverty, and inadvertently built a trap.
>
> (Charles Murray, *Losing Ground*, p. 9)

1. Introduction

A recurring criticism of the welfare state is that it perversely harms the very people it is intended to help.[1] Giving money to the poor reduces their incentive to enter the workforce, acquire experience, and eventually join the middle class. Providing welfare support for children born out-of-wedlock encourages teen pregnancy and discourages marriage, two serious impediments to escaping poverty (Herrnstein and Murray, 1994; Murray, 1984). As Murray Rothbard succinctly puts it, "[T]he easy availability of the welfare check obviously promotes present-mindedness, unwillingness to work, and irresponsibility among the recipients — thus perpetuating the vicious cycle of poverty-welfare."(1978, p.154) There is a parallel complaint about affirmative action in higher education. It allegedly leads minority students to enroll in overly competitive programs. In consequence, students able to earn a college degree from a less competitive school often wind up dropping out and fail to complete any degree at all. Thomas Sowell critically observes that:

[1] Murray (1984) is arguably the most prominent critic of the "War on Poverty." Friedman (1982 [1962]) offered similar arguments against public housing and welfare two decades earlier: the goal of these programs was to help the poor, but the unintended effect was "just the reverse" (179). Sowell (1996 [1980], 1990) and Chavez (2002, 1992) raise similar objections to affirmative action and related policies.

> This [minority] student does not get a better education because he is at a more prestigious school. On the contrary, he may well get a much worse education at such fast-paced institutions, in the sense of failing to learn things which he is perfectly capable of learning, in a learning environment that proceeds at a normal pace. Such a minority student may end up "confused, floundering, and unable to keep up." (1993, p. 137)

Whatever the intuitive appeal of these sorts of arguments, they are difficult to rationalize with standard microeconomic theory. To be more precise, textbook analysis suggests that each of the preceding claims is half right and half wrong. Yes, giving money to the poor reduces their incentive to enter the workforce, acquire experience, and eventually join the middle class through their own efforts. *But* this hardly shows that it makes the poor worse off! All the transfer program does is make the non-work option more attractive. If it remains less attractive than work, the poor will still opt for work. If, on the other hand, the poor decide to take the government's money and remain idle, it must be because — all things considered — it maximizes their expected lifetime utility. In other words, if you were to remind welfare recipients that they are hurting their future job prospects, they could curtly respond: "Obviously, I am hurting my future job prospects. But the money that the government gives me more than compensates for the future income that I'm giving up." Or as Tyler Cowen explains, the "traditional conservative critique of the welfare state..."

> ...involves an analytic tension. In most matters, conservatives and libertarians argue from neoclassical and Chicago school economic theories. In these approaches, a gift of cash always makes individuals better off, as evidenced by the classroom demonstration of how such gifts shift individuals onto "higher indifference curves." This is a basic lesson of any intermediate course in microeconomics, regardless of the political persuasion of the instructor. (2002)

The same goes for *any* government program that expands the opportunity set of the poor. It may very well change their behavior, but elementary micro tells us that if you make a different choice after your opportunity set expands, your utility must rise. If

affirmative action gives under-qualified minority students the chance to attend an Ivy League school, they are better off if they take advantage of this offer, and no worse off if they refuse.

Of course, this is only true *ex ante*; agents might come to regret their choice as events unfold. But once again, the standard assumption of basic microeconomics is that agents' expectations are, on average, correct. If some welfare recipients underestimate the adverse effects on their future job prospects, there are others who overestimate them. Thus, for every person who mistakenly goes on welfare, there is another potential welfare recipient who, contrary to his own best interests, insists on pulling his own weight.

Microeconomic theory emphasizes, moreover, that choices with immediate benefits and long-run costs are still made optimally. If a teenage girl decides to have an out-of-wedlock child and go on welfare, it is because she has determined that the up-front benefits of the child and the government's financial assistance outweigh the long-run costs of foregone earnings and diminished marriage prospects. Basic micro is a one-size-fits-all theory of choice: Trade-offs between two immediate benefits are of one cloth with trade-offs between immediate and more distant benefits.

Within the confines of standard microeconomics, then, many claims about the welfare state's perverse effects cannot be sustained. Rather than reject these claims as incoherent, however, the current paper argues that we should rethink them using the tools of behavioral economics. (Kahneman, Slovic, and Tversky, 1982; Thaler, 1992; Rabin, 1998; Sunstein, 2000) This large and growing literature casts a degree of empirical doubt on even the most elementary principles of microeconomics. It strongly undermines, for example, the rational expectations account of belief formation, uncovering an array of systematic errors in the thinking of the average subject. (Rabin, 1998) It also uncovers a

variety of intertemporal anomalies, such as self-control problems. (O'Donoghue and Rabin, 1999a, 1999b; Kirby and Herrnstein, 1995; Akerlof, 1991; Thaler and Shefrin, 1981).

The perverse effects frequently attributed to the welfare state are easy to interpret from a behavioral perspective. If people overestimate the magnitude of immediate benefits relative to more distant ones, you can actually — on net — harm them by offering them additional immediate benefits. They already tend to under-invest. Making their present more livable with cash gifts only amplifies this tendency. Similarly, if individuals systematically over-estimate their own abilities, you could easily harm a student by admitting him to a program for which he is under-qualified. Blinded by over-confidence, he would be likely to select the best school that accepted him, scarcely considering the possibility that he will be out of his league.

Looking at the welfare state from a behavioral standpoint lays the groundwork for a stronger claim: Potential welfare recipients' deviations from neoclassical assumptions tend to be especially pronounced. If the average American falls short of the neoclassical ideal, the average recipient of government assistance does not even come close.

To justify this generalization, we draw on the large literature on "pathological" behavior among the poor. Many pathologies can be readily understood as extreme versions of the anomalies emphasized in the behavioral literature. The experimental literature finds, for example, that the average experimental subject underestimates future costs of immediate satisfaction; and even when they recognize these costs, self-control problems may keep them from changing their behavior (Thaler, 1992). But the average experimental subject's deviations seem mild compared to those typical of the poor. Many activities — from drinking, smoking, and drug abuse to crime and unprotected sex —

combine immediate gratification with delayed costs. We argue that it is no coincidence that the poor are much more prone to engage in such activities than the rest of the population.

Thus, behavioral economics can reinvigorate arguments about the perverse effects of the welfare state in two distinct ways. For starters, we need behavioral economics to make this critique coherent. Once they have been explicitly placed on a behavioral foundation, claims about the perverse effects of various programs become harder to ignore or dismiss. More importantly, there are good empirical reasons to think that behavioral economics tells us more about the poor than it does about the rest of the population. Behavioral economics is more policy-relevant in this area than almost any other.

The paper is structured in the following way. Section two discusses previous literature on the perverse effects of the welfare state, highlighting its theoretical weaknesses. Section three shows how a variety of findings from behavioral economics put what Cowen calls the "traditional conservative critique" of the welfare state in a new and favorable light. Section four presents evidence that behavioral economics offers considerably *more* insight into potential welfare recipients than it does for the rest of the population. Section five explores the counter-intuitive policy implications of our analysis. Section six concludes.

2. Perverse Effects of the Welfare State?

Many claims about the negative impact of government policies on the poor can be readily parsed in neoclassical terms. To take a standard example, the rich live longer than the poor, and start work later in life, so the gross benefit the poor receive from

Social Security and Medicare is relatively small. Since payroll taxes are regressive, the net benefit of Social Security for the poor might turn out to be negative. Similarly, even if the poor receive twice as many dollars in government medical care as they pay in taxes to fund such programs, they are still be worse off if they value a dollar's worth of medical care at less than fifty cents. Arguments against the minimum wage and rent control fit the same pattern: the benefits of higher wages or lower rents are less than the expected costs of rationing. This is straight out of the textbook.

Less direct complaints about how policy hurts the poor can be rationalized in neoclassical terms as externalities. One poor family will be better off if they take government assistance. But they can be worse off on balance because other families in their area participate in the same program. Their neighborhoods become worse places to live in as the mix of local activity shifts from productive work to drug use or crime. There could also be intra-family externalities. A father who would have supported his family might abandon them once they begin receiving government assistance. The father is better off as a result of the government program, but his family is worse off if they prefer the presence of a working father to a stream of government checks (Cowen 2002, pp.8-9).

This paper focuses on a third, quite different, category of arguments. These make the dramatic claim that government gifts *by themselves* make their recipients worse off. The simplest version is that by giving the poor material support, we discourage them from getting jobs, acquiring experience, and eventually pulling themselves up by their bootstraps. In Sowell's words, "For young workers especially, the things you can learn on [‘menial’] jobs — responsibility, cooperation, punctuality — can be lifelong assets in many other occupations. Insulating people from such realities is one of the many

cruelties perpetuated under the banner of 'compassion.'" (1987; p. 36) What appears to be altruistic assistance makes the recipient worse off by making him unemployable in the future.

In the simplest model of choice under certainty, this argument is in direct conflict with revealed preference. (Figure 1) No one is forced to take the money. If the future sacrifices outweigh the present benefit, the prospective welfare recipient can simply turn the money down. An extra option must weakly increase his utility. Adding uncertainty admittedly opens up the possibility that you select a newly available option and it works out badly for you. But here the familiar distinction between ex post and ex ante utility comes into play. We can reconceptualize agents as choosing *gambles* instead of *outcomes*. Then putting an extra choice on your menu of gambles must weakly increase your *expected* utility.

Of course, if your expectations are completely at odds with the facts, this result is far weaker than it sounds. Standard neoclassical practice, though, is to assume rational expectations (Sheffrin, 1996; Pesaran, 1987). By implication, the probabilities that agents assign to outcomes are, on average, correct. So when agents expect to benefit by selecting a new option, on average they really do benefit.

In sum, there are three main families of criticism of the welfare state. One is that the poor pay more in taxes than they get in benefits; another appeals to inter- or intra-family externalities. These are not the subject of our paper. We focus our attention on a third family of criticism, which blames government for somehow leading its "beneficiaries" astray. Arguments of this form are rhetorically persuasive in spite of their incompatibility with basic micro. Is there any way to make sense of them?

3. A Behavioral Rethinking of the Traditional Conservative Critique

Indeed there is. The voluminous behavioral literature subjects the fundamental propositions of textbook microeconomics to extensive empirical tests, and documents a wide variety of exceptions. It also offers alternative theories of human behavior to accommodate the empirical findings (Kahneman and Tversky, 1979; Kahneman et al., 1990; Laibson, 1997; Camerer and Thaler, 1995).

Yet in spite of the maturity of the behavioral economics literature, to the best of our knowledge no one has previously used behavioral economics to rethink welfare policy. This is unfortunate because behavioral economics offers a novel perspective in this much-debated area. There are two main avenues we would here like to explore.[2] The first is *judgmental biases*. The second is *self-control problems*.

JUDGMENTAL BIASES

Judgmental biases are tendencies to hold systematically mistaken beliefs, beliefs predictably at odds with established empirical facts or with principles of logic, mathematics, or statistics. (Kahneman and Tversky 1982, p. 493). Out of the large literature on such biases, two stand out: self-serving bias and biased risk estimates.

A recurring finding in behavioral economics is that people "tend to be both unrealistically optimistic and overconfident about their judgments" (Sunstein 2000, p. 8). They suffer, in short, from "self-serving bias." More than half of survey respondents rate themselves in the top 50 percent of health, ethics, driving ability, life expectancy, and labor productivity (Taylor, 1989; Weinstein, 1989) — a mathematical impossibility.

[2] We do not intend this to be a comprehensive examination of the links between behavioral economics and welfare policy. Our goal is only to highlight the connections we expect to be most fruitful.

What is particularly interesting, though, is that mistakes tilt in the direction of positive self-image. This goes directly against the standard rational expectations assumption.

Similarly, individuals make biased risk estimates. Viscusi (1996, 1992, 1987) finds that individuals put too much emphasis on small risks and not enough on large ones. Individuals are overly concerned with highly publicized events (such as poisons in their food and water or anthrax contamination) but take much greater hazards for granted.[3] Thaler and Johnson (1990) similarly find that racetrack bettors suffer from "longshot bias": bettors overestimate the chance that the longshot horse will win.

What do these behavioral findings have to do with the poor? Take the case of single mothers. On the road to single motherhood, there are many points where judgmental biases plausibly play a role. At the outset, women may underestimate their probability of pregnancy from unprotected sex. After becoming pregnant, they might underestimate the difficulty of raising a child on one's own, or overestimate the ease of juggling family and career. Policies that make it easier to become a single mother may perversely lead more women to make a choice they are going to regret.

A simple numerical example can illustrate the link between helping the poor and harming them. Suppose that in the absence of government assistance, the true net benefit of having a child out-of-wedlock is -$25,000, but a teenage girl with self-serving bias believes it is only -$5000. Since she still sees the net benefits as negative she chooses to wait. But suppose the government offers $10,000 in assistance to unwed mothers. Then the *perceived* benefits rise to $5000, the teenage girl opts to have the baby, and ex post experiences a net benefit of -$25,000 + $10,000 = -$15,000.[4]

[3] For a contrasting view, see Benjamin and Dougan (2001, 1997).

[4] In the discrete case, of course, you can eventually make the recipient better off with a large enough gift (in this example, a gift greater than $25,000). With continuous choices, though, even an unlimited budget may

Or take another scenario: affirmative action in higher education. Could giving minority students more choices make them worse off? It could if they are unrealistically optimistic about their probability of success, leading them to choose an opportunity beyond their capabilities. Self-serving bias might also incline each student to assume that he was admitted on his own merits: "If I were being admitted because of affirmative action, I should be worried. But unlike many other students, I would have been accepted regardless of my race."

SELF-CONTROL PROBLEMS

Ethnographic writers often emphasize that the poor, to put it bluntly, are lazy and short-sighted (Haley and X 1999 [1964], p. 275, 318; Wilson 1996, p. 118). But there is no need to turn to behavioral economics to understand this. Neoclassical theory certainly allows for agents to have high disutility of work (i.e., to be "lazy") and high discount rates (i.e., to be "short-sighted"). The logic of neoclassical welfare economics still applies to those at the extreme tails of the preference distribution: expanding the opportunity set of the lazy and short-sighted makes them subjectively better off. If a person has a genuine hatred for work, a cash gift may enable him to leave the labor force as he always dreamed of doing. If a person is extremely impatient, similarly, he is better off overall if a government program subsidizes front-loaded consumption. Under these circumstances, limiting the safety net can be a benefit for taxpayers, but *not* recipients.

Behavioral economists have studied a superficially similar set of choice anomalies distinct from laziness and short-sightedness: self-control problems. People often speak about failing to lose weight, struggling to quit smoking, or procrastinating on a term

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not suffice. For example, if a heroin addict spends 100% of his income on heroin, and each dose of heroin on net makes him worse off, then his utility is strictly *de*creasing in income.

paper. There appears to be a conflict with traditional choice theory: An agent should either smoke (if the benefits exceed the costs) or not smoke (if the costs exceed the benefits). Why would the decision be tortured and vacillating? (O'Donoghue and Rabin, 2002). For some, apparently, it is a struggle — and often a losing one — to maximize expected lifetime utility.

How precisely do self-control problems differ from disutility of work or high discount rates? A person lacking in self-control *predictably regrets* his choices. After he makes them, he wishes he had done something else. Indeed, even *as* he makes one choice, in some sense he might prefer to do something else.[5] Laibson et al. (p. 95) point to the conflict between "attitudes, intentions, and behavior." When a neoclassical actor with a high discount rate ignores long-run consequences, it is not a difficult decision. Unlike an agent with a self-control problem, he does not regret his choice or repeatedly pledge to change his life. You might say that a self-control problem is akin to having intransitive preferences — or more accurately, *irreflexive* preferences. In some sense, the procrastinating student prefers partying to studying, but the opposite preference is also present. Or to take a topic of far greater policy significance, behavioral evidence on self-control has also often been used to criticize the optimality of retirement planning. As Laibson et al. (1998, p. 92) put it:

> [C]onsumers face two challenges: making good decisions and sticking to them. Economists have adopted optimistic assumptions on both counts. The consumers in mainstream economic models are assumed both to be exceptionally good decisionmakers and to be able to carry out their plans. These economic assumptions are dubious, particularly in regard to saving for retirement. (1998, p. 92)

[5] Thus, problems of self-control are distinct from judgmental biases. A person can have rational expectations about the actual consequences of his actions, but still internally struggle to take the action he deems optimal.

When an agent has self-control problems, traditional welfare analysis is problematic. Is a smoker who wants to quit better off if he throws all of his tobacco away? What if a fellow smoker tempts him by offering him a cigarette? At any given moment, he prefers to light up and inhale. But at the beginning of each day, he prefers to be a non-smoker.

Given self-control problems, policies that help an agent realize his momentary goals can derail his effort to achieve his meta-goals. It is possible, then, that expanding an agent's opportunity set makes him worse off. This is particularly clear if we affirm that the meta-goals are the "true" arguments in agents' utility functions. Behavioral economists often implicitly take this stance. Even if we remain agnostic about the priority of meta-goals over momentary ones, though, the existence of self-control problems undermines the certainty of neoclassical welfare economics. Giving your obese neoclassical friend a big box of chocolates cannot make him worse off; but it is at least possible your obese behavioral friend would be better off without your delicious present.

What do self-control problems have to do with the problems of the poor? Returning to an earlier example, the choice to have unprotected sex is a classic case where agents experience inner conflict. The immediate benefits are so enticing, but what about the enormous long-run costs? A neoclassical agent with high time preference will happily choose the immediate benefit. But real-world agents might not only predictably regret having unprotected sex, but regret it even at the time.

Self-control problems could also easily amplify the perverse effects of affirmative action. After doing poorly in an overly competitive university, a minority student has to decide whether to redouble his efforts or drop out. Following a string of setbacks, dropping out has immediate benefits — escaping academic stress and personal dejection

— but the costs in terms of foregone earnings take years to materialize. Students with self-control problems will tend to take the easy way out — and regret it.

The literature on self-control also suggests that "laziness" may not be the best way to explain the difficulty the poor have holding down a job. If you find something unpleasant about your current job, quitting solves your immediate woes. But there are long-term costs: Each time you quit, you become less employable.[6] The record eventually shows that the worker quit or was dismissed from eight, ten, or twelve jobs. The costs of short-term gratification have added up to one enormous misfortune: the individual cannot find employment at all because of his poor track record.

4. The Poor Deviate More

Behavioral economics tells us that individuals have judgmental biases and suffer from self-control problems. Giving a person more choices therefore has the potential, contrary to basic microeconomics, of predictably making that person worse off. From this general principle, we can deduce that when government assistance expands the choice sets of the disadvantaged, it can make the recipients worse off. In other words, behavioral economics provides a "possibility theorem" for welfare policy: Expanding opportunity sets *may* backfire.

At minimum, then, this counsels against summarily dismissing theories about the welfare state's perverse effects. But we can go further. Existing literature provides good reasons to think that the deviations of the poor from the standard neoclassical model are

[6] Wilson's (1996, p. 120) interviews with inner-city employers about employee turnover nicely capture this trade-off:

> "…they'll, on the application itself, just say something like 'didn't get along with supervisor' and then the next job, reason for leaving, 'didn't get along with supervisor,' next job reason for leaving, 'didn't like it,' and they'll have gone through three or four jobs in a matter of six or eight months and then they don't understand why they don't get hired here."

especially pronounced. Their judgmental biases are more extreme, and their self-control problems more severe, than those of the rest of the population. Standard neoclassical theory is unusually likely to mislead us when we analyze policies intended to assist the disadvantaged.

A. Quantitative Evidence

Behavioral economists frequently highlight certain kinds of behavior — like drinking, smoking, drug use, and retirement planning — to make their case. It is not hard to lengthen the list to include crime, unprotected sex, and other traditional "social pathologies." What is rarely emphasized in the behavioral literature, though, is that deviant behavior is much more pronounced among the poor.

Take drinking. The Substance Abuse and Mental Health Services Administration (1997) finds that "9.4 percent of workers in the $9,000-$19,999 income group reported heavy alcohol use, while only 2.1 percent of workers in the highest income bracket ($75,000 and more) reported heavy alcohol use." A similar result holds when we examine smoking and drug use. According to the National Household Survey on Drug Abuse (2002):

> …35 percent of persons with total combined family incomes of less than $9,000 reported smoking cigarettes during the past month compared with 29 percent of those from families with incomes between $20,000 and $39,999 and 19 percent of those from families with incomes of $75,000 or more.

Similarly:

> an estimated 15.4 percent of unemployed adults (aged 18 and older) were current illicit drug users in 2000, compared to 6.3 percent of full-time employed adults and 7.8 percent of part-time employed adults using illicit drugs.

The *Statistical Abstract of the United States* (2001, p. 301) reports that all forms of crime, from violence to personal theft, are strongly tied to household income. The

total figures for "all crimes" show that the poorest (<$7500 household income) are two and a half times more likely to commit a crime than the wealthiest (>$75,000). If we expand the definition to include all households earning less than $15,000, the poor still commit twice as many crimes.

Recent sociological work confirms that the poor also deviate more in their sexual behavior. Manlove et al. (2000) report that risk of birth throughout adolescence is decreasing in income. Similarly, controlling for family background, Sucoff and Upchurch (1998) found that black teenagers living in "underclass" and "working class" neighborhoods were more likely to have sex at earlier ages and more likely to give birth as teenagers. The National Survey of Family Growth (1996) reports that out-of-wedlock births occur far more frequently among the poor — only one in seven unmarried mothers have incomes above $25,000; four out of every ten unmarried mothers have incomes below $10,000.

One could try to minimize this evidence: Yes, the poor have a higher average incidence of pathological behavior, but the deviation is only in the tails, not the median. The absolute level typically remains far below 50%. In the behavioral literature, however, serious problems are normally seen as *extreme manifestations of continuous tendencies*. From this standpoint, if you see a sub-population with higher level of extreme behavior at the tails, you should also infer a higher median. Extreme behavior is only the tip of the iceberg; the more you see above the water line, the more you can infer lies beneath it.[7]

[7] For this metaphor, we are indebted to Kevin McCabe.

There is also limited direct evidence that the poor deviate more.[8] An intriguing study by Kruger and Dunning (1999) finds that self-serving bias is decreasing in objective ability. In other words, the least competent individuals overestimate themselves the most. As Kruger and Dunning put it:

> …overestimation occurs, in part, because people who are unskilled in these [social and intellectual] domains suffer a dual burden: Not only do these people reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of the metacognitive ability to realize it. (p. 1121)

Since the poor are below-average on most of the standard measures of ability (education and intelligence to take two obvious examples), we should expect their self-serving bias to be especially severe. This is consistent with McClendon and Wigfield's (1998) study of black children's self-assessments. They find that in spite of their poor objective performance, these underachieving students remain convinced that they are good in both math and science.

B. Accounting for the Deviation

Why would the poor be more prone to violate neoclassical assumptions? Perhaps the simplest mechanism is general intelligence. The average IQ of the poor is well below normal, which accounts for much of their earnings gap. (Herrnstein and Murray 1994; Jensen 1998) Measured intelligence also correlates negatively with illegitimacy, child abuse, smoking, and accidents. (Herrnstein and Murray 1994, pp. 161-3, 179-81, 207-10, 214) All of these patterns can be plausibly interpreted as amplified departures from neoclassical assumptions.

Take illegitimacy. Herrnstein and Murray suggest the following causal model:

[8] At least two studies document that education — a strong correlate of income — reduces the magnitude of certain forms of judgmental bias. Kraus, Malmfors, and Slovic (1992) show that systematic errors about toxicology are decreasing in education. Caplan (2001) finds that the educated are less likely to hold systematically mistaken beliefs about economics.

> The smarter the woman, the more likely that she deliberately decides to have a child and calculates the best time to do it. The less intelligent the woman is, the more likely that she does not think ahead from sex to procreation, does not remember birth control, does not carefully consider when and under what circumstances she should have a child. How intelligent a woman is may interact with her impulsiveness, and hence her ability to exert self-discipline and restraint on her partner in order to avoid pregnancy. (1994, p. 179)

In other words, lower intelligence amplifies judgmental biases and lack of self-control. Less intelligent women are more likely to systematically underestimate the probability of pregnancy from unprotected sex. This leads them to take risks they would avoid if they understood the true numbers. Herrnstein and Murray also appear to say that it is more difficult for them to control their own behavior; the less intelligent have a stronger tendency to make choices that they will come to regret.

Crime is another interesting case. Herrnstein and Murray acknowledge the standard human capital account of the link between low intelligence and crime: "If, for example, people of low intelligence have a hard time finding a job, they might have more reason to commit crimes as a way of making a living." (1994, p. 240) But they also offer an alternate account based on judgmental bias:

> A lack of foresight, which is often associated with low IQ, raises the attractions of the immediate gains from crime and lowers the strength of the deterrents, which come later (if they come at all). To a person of low intelligence, the threats of apprehension and prison may fade to meaninglessness. They are too abstract, too far in the future, too uncertain. (1994, p. 240)

Warner and Pleeter's (2001) recent paper in the *American Economic Review* provides direct evidence of the tendency for lower IQ to amplify behavioral anomalies. During the 1990's, the U.S. military offered benefit packages to induce voluntary separation. The benefit package could be taken as an annuity or a lump-sum payment. In line with much of the behavioral literature, Warner and Pleeter find that actors use discount rates far in excess of the market interest rate — usually taken as a sign of

judgmental bias, lack of self-control, or both.[9] The present value of the lump sum was far less than the annuity — with a break-even discount rate greater than 17% — but most separatees chose the lump sum. What is noteworthy from the standpoint of the current paper is that individuals with lower measured intelligence were significantly more likely to select the lump sum. This remains true after controlling for education, experience, family size, wage, field of specialization, and more. Thus, separatees' anomalous behavior becomes visibly more pronounced as their intelligence falls.

The "culture of poverty" literature offers a (potentially complementary) alternative to Herrnstein and Murray's general intelligence story. Banfield (1968) remains an insightful introduction. Generalizing from a large ethnographic literature, Banfield identifies contrasting sets of upper, middle, working, and lower class values (1968, pp. 48-54). He argues that lower class values, transmitted from generation to generation, are an important cause of poverty. As Banfield starkly puts it:

> [T]he lower-class individual lives moment to moment. If he has any awareness of the future, it is of something fixed, fated, beyond his control: things happen *to* him, he does not *make* them happen. Impulse governs his behavior, either because he cannot discipline himself to sacrifice a present for a future satisfaction or because he has no sense of the future. He is therefore radically improvident: whatever he cannot consume immediately he considers valueless. His bodily needs (especially for sex) and his taste for "action" take precedence over everything else — and certainly over any work routine. (1968, p. 53)

A high discount rate may well be part of the story, but reducing it to that alone seems forced. Indeed, when Banfield elaborates, his account is almost explicitly behavioral: "the individual's orientation toward the future will be regarded as a function of two factors: (1) ability to imagine a future, and (2) ability to discipline oneself to

[9] There is of course a simple neoclassical explanation: credit market imperfections. The problem with this account is that the anomalies persist even if actors are definitely not liquidity constrained (e.g., they have significant home equity or other liquid assets) (Thaler 1992, pp. 119-20).

sacrifice present for future satisfaction." (1968, p. 47) The former strongly suggests judgmental bias; the latter, lack of self-control.

Mayer (1997) is a more recent contribution to the culture of poverty literature. She finds if we were to go so far as double the income of the poor, there would be little effect on long-term poverty. Instead, the primary determinants of success are parental characteristics and attitudes, such as honesty, diligence, and reliability — the very attitudes Banfield maintains that the poor are lacking.

5. Policy Implications

Moral hazard is the traditional neoclassical argument for limiting government assistance. As programs become more generous, behavioral distortions increase. Ultimately, the marginal dollar transferred costs donors much more than a dollar, so if you put any weight on donors' welfare, you eventually say "enough." The behavioral perspective advises us to superimpose further costs onto this calculus: We must consider the cost to the *recipients* as well as the cost to the donors. Once we acknowledge that the disadvantaged not only deviate from neoclassical assumptions, but deviate to an unusually strong degree, there are at least arguably expansive implications for policy. Behavioral issues do not trump all other considerations, but they do push us in certain directions.

Most obviously, if government assistance to the disadvantages amplifies the ill effects of their judgmental biases and self-control problems, it strengthens the case for reducing the size of welfare benefits, limiting their duration, restricting eligibility, and even abolition. The more "generous" programs are, the more likely they are to harm their

ostensible beneficiaries further down the road. But due to self-control problems, many people will accept the benefits anyway. They are just too tempting to turn down. Moreover, recipients will generally overestimate their own ability to pursue their long-run interests while on the dole: "*Other* people may live in the present and grow increasingly unemployable, but not me." "*Other* single moms may be unable to care for their children and pursue a career, but not me."

Behavioral economics also puts affirmative action in a new light. If students overestimate their own academic abilities, you could help the "beneficiaries" of affirmative action by curtailing or ending preferential admissions. Even in the absence of affirmative action, self-serving bias leads students to pursue overly risky academic strategies: "*Other* kids may get in over their heads, but not me." Expanding their set of risky choices with preferential admissions makes the problem worse. While this is not an ironclad argument against affirmative action, it is an additional cost of the policy that most analyses neglect.

Neoclassical economics would have to label our reasoning "paternalistic." As Cass Sunstein (2000, p. 46) observes, behavioral economics is at least "anti-anti-paternalist." It opens up the possibility of hurting people by expanding their choice set, and helping them by shrinking their choice set.

This theoretical result is plainly symmetric. If expanding labor market choices above the laissez-faire level makes the poor worse off, then reducing them *below* the laissez-faire level might make the poor even better off. One might interpret laws against vagrancy or truancy in this light — as an attempt to correct for agents' self-control problems when they weigh the benefits of leisure today against the future benefits of human capital acquisition.

Imagine graphing socially optimal policy as a function of the severity of agents' deviation from neoclassical assumptions. (Figure 2) For mild deviations, the optimal adjustment would presumably only be to slightly curtail the generosity of government assistance. As deviations from neoclassical assumptions becomes greater, though, the long-run harm of a given level of assistance rises, and the optimal level of generosity accordingly falls. For particularly severe biases, simple refusal to help will not suffice, and optimal policy would have to restrict even the choice set remaining to the poor under laissez-faire.

So the behavioral perspective definitely argues for *different* government policies, but not necessarily for less government. There is however a contingent factor that pushes in favor of laissez-faire: the fixed costs of government programs. As long as any form of intervention — whether positive (giving the poor money) or negative (forbidding vagrancy) — has fixed costs, there exists a discrete range over which laissez-faire is optimal. (Figure 3) If, ignoring fixed costs, the optimal policy involves only mild government action, then once you take fixed costs into account, the optimal policy is no government action at all.

Thus, there is a contingent connection between behavioral economics and conservative and libertarian pleas for laissez-faire. At the same time, the behavioral approach pushes against laissez-faire along other policy dimensions. Consider regulation of drugs, alcohol, and tobacco. From a standard neoclassical perspective, consumption of these substances is an unambiguous social benefit. The textbook case for restriction or prohibition therefore hinges on externalities — externalities which many economists have called into question. The standard rationale for taxes on cigarettes, for instance, is that smokers do not pay the full social cost of their habit because government picks up a share

of their medical expenses (Grossman et al., 1993; Hay, 1991; Manning et al., 1989, 1991). This argument has been debunked by economists who point out that smokers also die younger, and that the savings from earlier death outweigh the costs of smoking-related medical treatments (Viscusi, 1994).

From a behavioral perspective, one can construct a quite different case for taxes on tobacco. We must consider not just the costs smokers impose on non-smokers, but also the costs that smokers heedlessly impose on themselves. Smokers often lament that lack of self-control prevents them from kicking the habit (Survanovic et al., 1999; Wertenbroch, 1998; Akerlof, 1991; Winston, 1980). Overconfidence arguably exacerbates their plight: Young smokers may form a plan to quit when they turn forty, thinking "Unlike others, *I* can stop anytime I want." Using taxes to raise the price of cigarettes could therefore actually help smokers. By increasing the upfront cost of the habit, you could make them "act as if" they accurately adjusted for its long-term consequences.

Moreover, insofar as the poor suffer from more pronounced biases than other segments of the population, what is usually seen as a defect of cigarette taxes — their regressive impact — is actually a benefit! The more severe people's deviation from neoclassical assumptions, the larger the gap between their choices and their welfare. A constant per-pack tax presumably matters more to low-income smokers. Thus, cigarette taxes probably have the largest effect on the tobacco consumption of those who, left to their own devices, tend to do themselves the most harm.

Once again, behavioral considerations are not a trump against conventional neoclassical cost-benefit analysis. One could admit that consumers of heroin would generally be better off consuming no heroin, but still reject the efficiency case for

prohibition by pointing to indirect effects of street violence and adulteration. What the behavioral perspective teaches us is that the standard neoclassical framework neglects some of the benefits of prohibition. Whether or not these forgotten benefits tip the scales depends on how close the contest was to begin with.

It is wise to pursue paternalistic reasoning cautiously. There is a risk of redefining all behaviors you disapprove of as "self-control problems," and all beliefs you disagree with as "judgmental biases." The danger you pose to yourself is probably trivial compared to the danger of living under the veto of a randomly selected behavioral economist. A risk-averse policy-maker should think long and hard before directly ordering the poor about for their own good. But curtailing the generosity of existing programs is a low-risk and straightforward way to modify policy to take account of behavioral concerns.

Incidentally, our analysis is equally relevant for private charity. Concerned altruists have to consider the possibility that less fortunate would be better off if they helped them less. This suggests a new spin on the long-standing distinction between the "deserving" and the "undeserving" poor (Himmelfarb, 1991). You might conceive of the deserving poor as those who are clear-headed and disciplined enough to benefit from financial assistance. The undeserving poor, conversely, can be seen as those too far from the rational actor model to mechanically benefit from higher income. Philanthropists with "hard heads and soft hearts" — to use Alan Blinder's (1987) phrase — must face the harsh reality that they may not be able to help those who will not help themselves.

6. Conclusion

To the best of our knowledge, this is the first paper to analyze the connection between behavioral economics and what Tyler Cowen calls the "traditional conservative critique of the welfare state." Most detractors of the welfare state have turned to neoclassical economics for intellectual support. Few promoters of behavioral economics have stopped to consider its implications for poverty policy.

Our paper aims to reverse both of these trends. Some of the most common complaints about the welfare state are, from a strict neoclassical perspective, senseless. But from the standpoint of behavioral economics, they are quite coherent. Moreover, even though behavioral economists have given policy towards the disadvantaged short shrift, this turns out to be a topic where behavioral findings are especially relevant. A variety of sources indicate that "the poor deviate more." If the average person violates neoclassical assumptions, the average welfare recipient violates them to a markedly greater degree.

Some of the policy implications are straightforward: Behavioral economics provides additional reasons for less generous government assistance along a number of margins. If the people the government wants to help do not fully account for the negative long-run effects of accepting help, they are better off if the government does the accounting for them. Other policy implications are less obvious. Specifically, it is theoretically possible for government to help the disadvantaged by reducing their choice set below the laissez-faire level. The traditional conservative critique of the welfare state is fundamentally paternalist. Once you accept the idea that you can hurt people by giving them more choices, you can hardly reject the idea that you can help them by taking some

of their choices away. In practice, of course, the latter may be much more costly than the former.

There are important implications for future research. The behavioral literature has documented that the average person frequently violates neoclassical assumptions. But it rarely investigates *variation* in the tendency to violate neoclassical assumptions. Casual empiricism and limited formal evidence suggest that the poor do deviate more. A great deal more could be learned at low cost if new behavioral studies collected information on participants' income and education to test for heterogeneity.

One of the main contributions of behavioral economics has been to subject even the most fundamental assumptions of economic theory to empirical scrutiny. Textbook micro is useful in a great many contexts, but behavioral economists have found a number of blind spots. In this paper, we have argued that common sense doubts about the efficacy of the welfare state are often essentially isomorphic to some of the main blind spots behavioral economists have discovered. On a homework problem in intermediate micro, you can eliminate poverty with lump-sum transfers. In the real world, matters are not so simple.

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Figure 1: Neoclassical Effect of Welfare

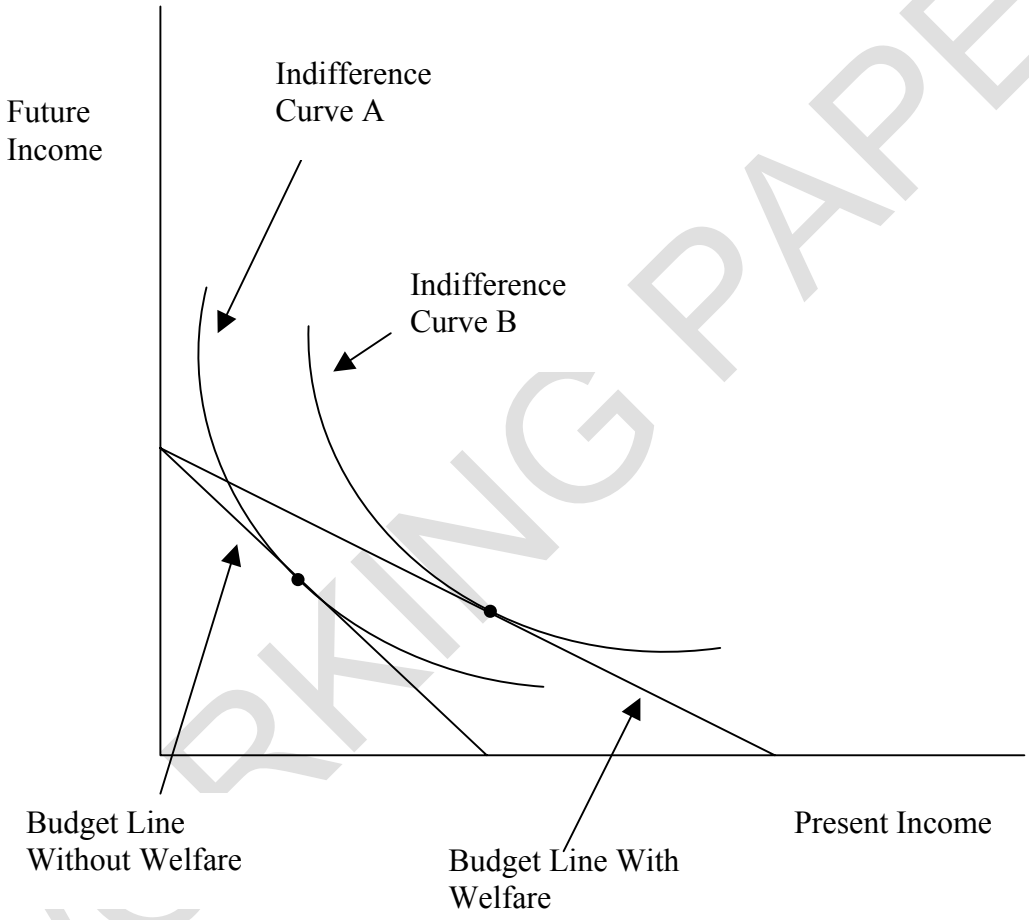

Figure 2: Deviations from Neoclassical Assumptions and Optimal Policy

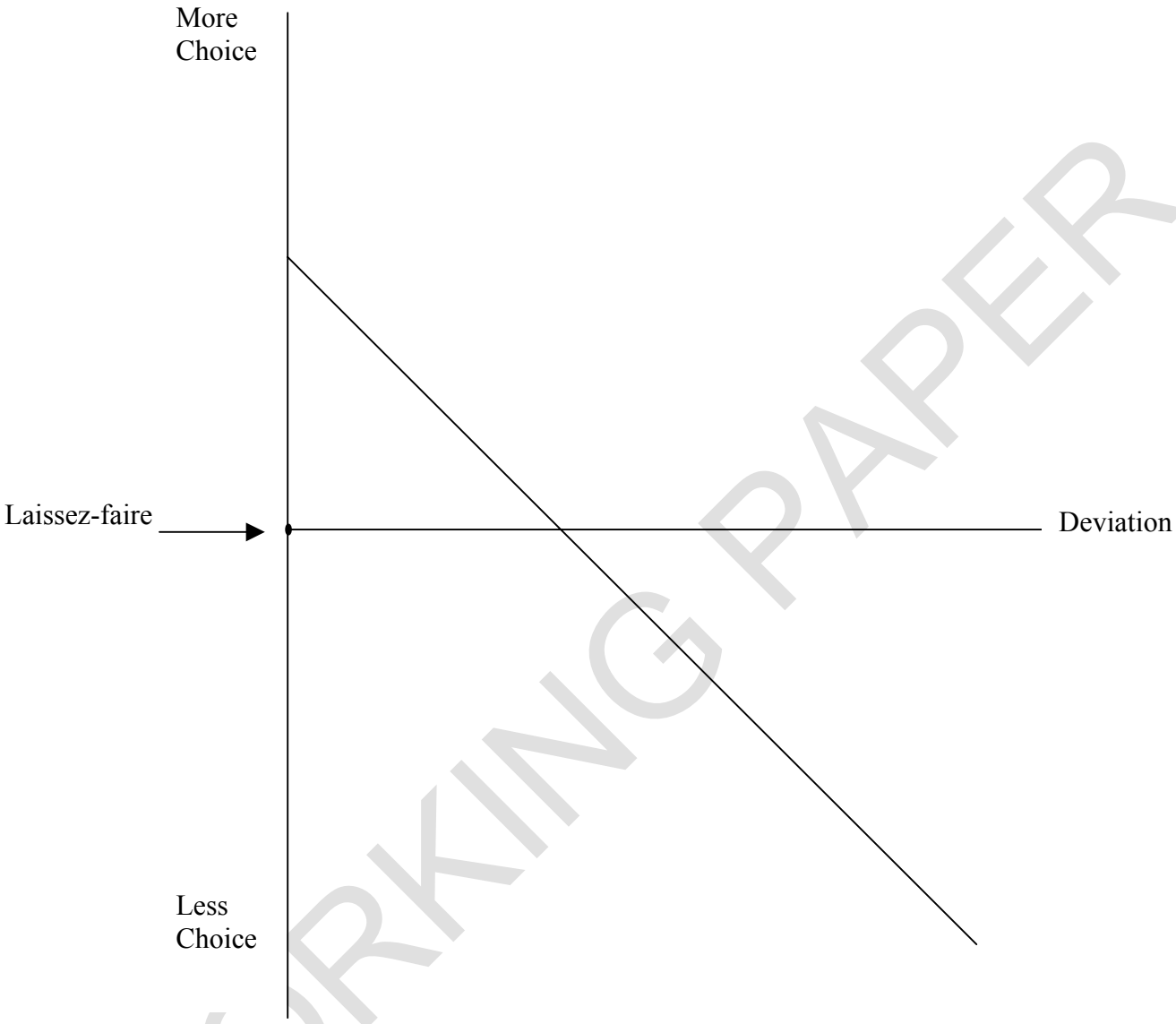

Figure 3: Deviations from Neoclassical Assumptions and Optimal Policy with Fixed Costs