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## Predicting Support for Government Action to Reduce Inequality

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PREDICTING SUPPORT FOR GOVERNMENT ACTION TO REDUCE  
ECONOMIC INEQUALITY

by

Adam James Darnell

Under the Direction of Rod Watts

Abstracts

*Abstract for Literature Review*

The current degree of economic inequality in the US is the largest it has been since prior to the Great Depression and growing. Economic inequality is linked to mortality, social capital, interpersonal trust, and democratic participation, beyond the effects of poverty. Two main constructs are reviewed as predictors of support for efforts to reduce inequality: 1) distributive justice norms (equity and equality of outcome), and 2) causal attributions (individual and structural). Justification of the unequal status quo is often driven by reference to dominant cultural values personal responsibility and just deserts, which are likened to individual attributions and equity, respectively. However, individuals may also recognize that economic outcomes are determined by structural factors such as discrimination and privilege. Recognition that structural factors determine economic outcomes is referred to as systems analysis. Systems analysis is expected to be unrelated to individual attributions, reflecting the common view that economic outcomes are determined by both individual and structural factors.

Furthermore, systems analysis is conceptualized as the central determinant of both the extent to which equality of outcome is desirable, despite prevailing preferences for equity, and the use of dominant cultural values as justifications for opposition to redistribution. Because systems analysis reflects the view that resources are not distributed solely based on individual merit, it implies that resources are not distributed fairly. This belief is expected to increase endorsement for equality of outcome and weaken negative effects of equity and individual attributions on support for redistribution.

*Abstract for Present Research*

Predictors of support for government action to reduce inequality were examined using the US sample ( $n = 1414$ ) of the 1991 International Social Justice Project. Opposition to reducing inequality is often driven by reference to dominant cultural values such as the equity distributive justice norm and individualistic causal attributions. The present study tested the hypothesis that supporters and opponents share a common endorsement of these dominant values, but differ in the extent to which they acknowledge that structural factors determine economic outcomes (defined as systems analysis). Results indicated that the negative relationship between individual attributions and support for redistribution was only significant among participants with low systems analysis.

INDEX WORDS: Inequality, Systems analysis, Attributions, Distributive justice, Redistribution, Critical consciousness, Privilege

PREDICTING SUPPORT FOR GOVERNMENT ACTION TO REDUCE  
ECONOMIC INEQUALITY

by

Adam James Darnell

A Dissertation Submitted in Partial Fulfillment of Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2006

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2006

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ECONOMIC INEQUALITY

by

Adam James Darnell

Committee: Roderick Watts, Chair  
Gabriel Kuperminc, Co-Chair  
Julie Ancis, Member  
Marci Culley, Member  
James Emshoff, Member

Electronic Version Approved:

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College of Arts and Sciences  
Georgia State University  
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## Chapter One: Review of the Literature

### *Introduction*

This dissertation will examine attitudes toward economic inequality in the US. In terms of income, a recent report by the Economic Policy Institute indicates that the top 1% of income earners enjoy incomes 88.5 times larger than the bottom 20% of the US population (Economic Policy Institute [EPI], 2004b). This disparity has exploded in recent years, up 55.4 points from 1979 and presently the largest it has been since just prior to the Great Depression (Center for Budget and Policy Priorities [CBPP], 2003). Incomes for the top 1% of the population increased 201% from 1979, compared to a 9% increase for the bottom fifth of earners (CBPP, 2003). In contrast, during the 1950s and 60s incomes increased much more equally, roughly doubling for each income segment (EPI, 2004a). In terms of actual numbers of people, the richest 1% of the population amounts to 2.8 million people, whose income as a group now exceeds the total income of the 110 million people who make up the bottom 40% of income earners (CBPP, 2003). The inequality picture is much worse when considering wealth (accumulated assets such as savings, stocks, and home equity). In 2001, the top fifth of households held 84% of all wealth in the US, the middle fifth held only 3.9%, and the bottom fifth had negative holdings (EPI, 2004c). In the United States, the degree of income inequality is the largest among developed nations (EPI, 2004a).

The inequality picture is even worse when considering group-based economic inequality. In 1998 women employed full-time still earned 75% less on average than

men employed full-time, and between-gender comparisons within the same occupation reveal similar disparities (Heintz & Folbre, 2000). In terms of race/ethnicity, according to a 2004 Pew Hispanic Center report based on data from 1996-2002, the median income of African Americans and Latinos stood at roughly two-thirds that of Whites, whereas the median wealth of African Americans and Latinos is only one-tenth that of Whites.

Looking at 2002 only, the median household wealth for Blacks was \$5,988, for Latinos \$7,932, and for Whites \$88,651 (Pew Hispanic Center, 2004). Furthermore, non-Whites are 162 times more likely than Whites to live in poverty (Wollman, 2004). Neville, Worthington, and Spanierman (2001) report that among the luxuries Whites are more likely to enjoy are smaller class sizes, availability of computer technology in schools, graduation from college, steady employment during economic downturns, health insurance, recovery from certain diseases, more favorable housing, accessibility of home loans, and retirement investments (p. 263).

There is evidence that economic inequality is detrimental to various indicators of personal and societal well-being. Kawachi and colleagues (1997) reported a number of epidemiological studies, which have shown a strong positive relationship between income inequality and mortality, above and beyond effects of poverty. They also demonstrated that income inequality makes its negative effects on health via decreases in social capital (i.e., civic engagement and interpersonal trust). Lower levels of interpersonal trust have been associated elsewhere with increased economic inequality and decreased concern for the misfortunes of others (Uslaner, 2002). Additionally, a

recent report by the American Political Science Association's Taskforce on Inequality and American Democracy (2004) compiled findings from a wide range of empirical studies demonstrating that rising economic inequality is associated with inequalities between poor and rich persons in all forms of democratic participation including voting, contacting representatives, campaign contributions, membership in advocacy groups, and protest. Findings such as these make it clear that the large and growing degree of economic inequality in the US is indeed a pressing social problem that is contrary to the public good and needs to be reduced. The purpose of the present study is to identify attitudes that predict support for public efforts to reduce economic inequality.

#### *Popular Reactions to Inequality*

Attitudes toward economic inequality range from distress to justification. Arguments justifying inequality are driven by a host of underlying attitudes that are well-represented in the writings of conservative economic commentators. These include: 1) that inequality is a necessary by-product of a thriving capitalist economy which justly allocates different rewards to differently-abled persons (Hinderaker & Johnson, 1996), 2) that truly free markets function best (Friedman & Friedman, 1980), 3) that the functioning of the free market provides for an increased standard of living for all segments of the income distribution (Cox & Alm, 2000; Novak, 2000), and 4) that there is ample economic opportunity and upward mobility throughout the income distribution (Hinderaker & Johnson, 1996). Justifications for inequality are also motivated by objections to the means by which inequality might be reduced. Redistribution is most

objectionable to many Americans because it violates dominant cultural values of personal responsibility and just deserts (Bellah et al., 1985; Della Fave, 1986). Redistribution is also rejected by reference to potential negative practical effects on both the successful (i.e., by decreasing incentives offered by reward-for-merit system) and the poor (i.e., by creating dependence). Another common argument against calls for greater equality is that poverty, rather than inequality is the real problem (e.g., “A question of”, 2004). Essentially the argument follows, there is enough wealth to go around, and the poor can get wealthy without the rich losing a cent, and further that calls for equality beyond the alleviation of poverty are driven only by the envy of those who have less. This argument diverts any of the objectionable implications for the wealthy made by calls for greater equality.

In contrast, liberal and progressive economic analysts argue that such justifications for inequality lose credibility in light of evidence from comparably advanced economies. The Economic Policy Institute (2004a) reports that upward mobility in the US is lower than in any other member nation of the Organization for Economic Cooperation and Development (OECD), the US has the highest levels of poor and chronically poor children among OECD nations, and accordingly, US social expenditures which serve to mitigate inequality were lower as a percentage of GDP than in any other developed nation. The report adds that among the countries with more ample social welfare systems are nations with productivity levels that surpass those of the US.

Nevertheless, conservative economic commentators decry calls for greater equality as socialist or Marxist, citing the fall of the Soviet Union as abundant evidence that socialism failed and therefore, that equality is a bad idea [e.g., “Perfect economic equality is a nightmare: nothing short of a totalitarian tyranny could ever hope to achieve it” (“A question of”, 2004).] However, in his book *Equality* (1981), William Ryan notes that equality of outcome is a “straw man” raised to dispel criticisms of inequality and defend the status quo. Describing a progressive but not radical vision of social equality, Ryan describes a society that would:

“hold that all persons have a *right* to a reasonable share of material necessities, a right to do constructive work, and a right of unhindered access to education, to gratifying social memberships, to participation in the life and decisions of the community, and to all the major amenities of society. This principle doesn’t lend itself to the calculation of ‘equal results,’ and it certainly doesn’t imply a demand for uniformity of resources. No one in his right mind would entertain some cockeyed scheme in which everyone went to school for precisely thirteen years, consumed each year 19,800 grams of protein and 820,000 calories...” (p. 29).

Invoking the notion of absolute equality misleads the debate from the true issues of what can be done within the confines of a capitalist economy and democratic government to *reduce* inequality. Verba et al. (1987) note that adherence to the value of differential reward for differential success does not preclude questioning the *degree* of differential reward. They write: “That some income difference is justified by both efficiency and



desert does not imply the degree of that difference” (p. 118). Forced redistribution of resources to the point of outright equality is not the only solution to the gross inequalities that characterize US society. There is an expansive middle ground between the extremes of laissez-faire capitalism and communism. Examination of the systemic causes of inequality suggests practical strategies for controlling it within the confines of a capitalist democracy.

#### *Causes and Solutions for Inequality*

A report by the Center for Budget and Policy Priorities and the Economic Policy Institute (2002) that analyzed state trends in economic inequality describes a number of factors contributing to growing inequality. Focusing on wage inequality, the report cites: 1) the shift from manufacturing to service sector jobs, which are on average lower paying, 2) globalization which brings domestic labor into competition with less expensive foreign labor, 3) the decline in the value of the minimum wage which, despite occasional federally legislated increases in the early 90s, has decreased in real value by 18% since 1979, and 4) decreases in union membership (CBPP & EPI, 2002). Union membership which is reliably tied to higher wages and benefits, stood at 12.9% of all wage and salary workers in 2003, down from 20.1% in 1983 (Bureau of Labor Statistics, 2004).

Another factor contributing to the growing inequality in the United States is the failure to implement public policies strong enough to counteract growing inequality. According to the American Political Science Association’s Taskforce on Inequality and

American Democracy, “policies pursued – or not pursued – help to explain sharper socioeconomic disparities in the US compared to more muted inequalities in Canada, Germany, France, and other advanced industrialized countries” (2004, p. 4; see also Alesina & Glaeser, 2004). Policy strategies for decreasing inequality include the minimum wage (as of 2002 eleven states and the District of Columbia had raised their state minimum wages higher than the federal level, and as of 2006 18 states had done so), progressive state and federal income tax structures, and state and federal assistance to poor unemployed and working families (CBPP & EPI, 2002). Specific forms of public assistance to needy families include the Earned Income Tax Credit, unemployment insurance, welfare, job training, childcare, Medicaid, low-income housing, and food stamps (Reich, 2004). Additionally, affirmative action policies serve a key role in mitigating group-based inequality.

Although effects of these strategies on inequality and on individuals is debatable (DeParle, 2004), and there is great variation in the specific practical aspects of implementation for any one of these strategies, the present study will not address the issue of how to best reduce inequality. This study assumes simply that there are effective public strategies for reducing inequality -- the specific strategies for how to do so at the local, state, and federal governmental levels are addressed elsewhere. This study examines support for a more general outcome, the belief that the government should do something to reduce inequality. Opposition to government action to reduce inequality

will be interpreted as justification of the unequal status quo, and support for government action to reduce inequality will be interpreted as rejection of the unequal status quo.

Two key constructs will be examined as predictors of government action to reduce inequality: 1) moral judgments about how resources *should be* distributed which are referred to as distributive justice norms, and 2) beliefs about how resources *are* distributed which are called causal attributions. In the introduction above, extreme versions of liberal and conservative views on inequality have been used to illustrate the full spectrum of attitudes. This false dichotomization will persist below as I attempt to contrast supporters and opponents of government action to reduce inequality, in terms of preferred norms of distributive justice and causal attributions for each. However, this dichotomization is only a convenient conceptual simplification. This study will show that attitudes toward economic inequality in the US population are not so categorically and diametrically opposed as the liberal and conservative extremes would suggest. There are important similarities between critics and supporters of the unequal status quo, such as dominant cultural values of personal responsibility and just deserts, but the pivotal difference is the extent to which structural factors are believed to contribute to the unequal distribution of resources in society. Similarities and differences between supporters and opponents of government action to reduce inequality will be detailed below in the review of the literature for distributive justice norms and causal attributions.

### *Distributive Justice Norms*

The ideological debate on inequality is fueled not so much by disagreements about the objective aspects of inequality as by disputes concerning its moral dimensions. Questions about who should have what and how much equality there should be have a distinct moral component -- they are essentially questions of justice. Philosophical and empirical work on justice will be reviewed in detail below, but I approach that content *vis a vis* the work on social justice in community psychology in order to advance the treatment of justice in the community psychology literature.

A concern for social justice is a defining feature of community psychology. According to Fondacaro and Weinberg (2002), "Perhaps more fundamentally than any other concept, the concept social justice pervades and informs strategies of research and intervention in the discipline" (p. 474). Recalling the genesis of the field, Prilleltensky wrote:

"Community psychology emerged in the sixties to address some of the shortcomings of clinical and traditional applied psychology (Rappaport, 1977; Sarason, 1988). ...Community psychologists began to question the value of helping individuals when so many societal structures were inimical to human welfare. This realization led to calls for social change. As community psychologists, pioneers in our field wanted to use their skills to improve not just the well being of individuals but of society as a whole. There was the promise of social change and the expectation that community psychologists would become

allies with oppressed groups in the struggle for social justice (Prilleltensky & Nelson, 1997)” (2001, p.749).

But what exactly is social justice? Authors within the field of community psychology continuously endorse the ideal of social justice, with very little specific definition of the term or description of what socially just research or behavior on the part of individuals or societies would look like. Arguing for an empirical treatment of social justice, Fondacaro and Weinberg (2002) note that authors “continue to treat the meaning of this value as if it was somehow given and unambiguous” (p. 486). Even conservative commentators have noted the popularity and simultaneous obscurity of the term. For example, a commentator for the American Enterprise Institute observed that “social justice is all the rage,” labeling it “P.C. groupthink” because no one will offer a clear definition of what it means (Pike, 2003).

Prilleltensky (2001) defined social justice as, “fair and equitable allocation of bargaining powers, resources, and obligations in society *in consideration* of people’s differential power, needs, and abilities to express their wishes” (p. 754). Bell (1997) defined social justice as, “full and equal participation of all groups in a society that is mutually shaped to meet their needs. Social justice includes a vision of society in which the distribution of resources is equitable and all members are physically and psychologically safe and secure” (p. 3). However, fairness and equitability are not unambiguous terms themselves, so a deeper examination of these definitions is needed. Two conceptual distinctions are useful in considering the definition of social justice: 1)

distributive and procedural versions of justice, and 2) justice norms including equity and equality.

Both definitions of social justice presented above address the distribution of desired resources across the members of a society, which is an issue of *distributive justice*. Prilleltensky (1997), recognizing the obvious importance of material resources, asserted that psychologists must attend to distributive justice in order to avoid individualizing psychological distress. Raising the bar a little higher, Young (1990; as cited in Mullaly, 2002) noted that studies of justice in psychology have tended to focus on questions of the distribution of resources. Young argues that social justice cannot be attained purely by distributive remedies—that changes in the processes that lead to unjust distributions are also necessary. Another type of justice, procedural justice (Leventhal, 1976; Thibaut & Walker, 1975), addresses judgments of justice in processes, for example, dispute settlement, deliberation of criminal cases, or group decision making. Empowerment as conceptualized by community psychologists (Rappaport, 1987; Zimmerman, 2000) is a mainstay of procedural justice. Through the process of empowerment, disempowered individuals exert voice and self-determination. On the other hand, Riger (1993), speaking of empowerment as an outcome, argued that the heightened sense of efficacy and perceived control resulting from participatory processes should not be substituted for real redistribution of power. Indeed, empirical studies have demonstrated that participation in decision making processes is strongly related to perceptions of fairness, and that perceived fairness in turn predicts satisfaction with

outcomes (Thibaut & Walker, 1975; Walker, Lind, & Thibaut, 1979), even when participation does not amount to real control of outcomes (Tyler, Rasinski, & Spodick, 1985).

Both distributive and procedural versions of justice are based on the much more conflicted concepts of equity and equality. Webster's definition of the term equity is "the quality of being fair or impartial" (Costello, 1996). But what is fair? Homans (1961) likened equity to proportionality, the expectation that rewards will be proportional to investments. Familiar concepts such as deservingness, earning, and merit are driven by the principle of equity. Concepts of equity extend back to Aristotle (Walster & Walster, 1975) suggesting that judgments about equity are essential to human nature. However, Sampson (1975) noted that equity is not human nature but culturally derived: "By nature man is not an equity theorist" (p. 49). And there is evidence to suggest that the importance of equity varies between people and cultures. Research on belief in a just world (Lerner, 1980) has demonstrated that many Americans have a particularly strong psychological need to believe that the world functions equitably—that people generally get what they deserve (for a review, see Furnham, 2003). Della Fave (1986) demonstrated that in the US the principle of equity is integral to the psychological process of legitimating social inequality.

Proportionality is a fairly straightforward concept when one considers known quantities of an agreed upon value, but determining the value of inputs and outcomes is highly contestable. What is the value of an hour of work? Is it even plausible that the

value of one person's work should be anywhere near 88.5 times more than another person? As Walster and Walster (1975) point out, "society can define anything—bravery or cowardice, humility or arrogance, beauty or ugliness—as a valuable input" (p. 29). In US culture, the primary means for determining the value of any input or outcome is the market. Almost everything has a monetary market value, supposedly determined by supply and demand. Assuming the existence of the free-market, equal opportunity, and self-determination, the dominant view in US culture is that the market is just. But this is an overly simplistic view in light of such current controversies as the question of whether the value we place on childhood education is accurately reflected in teacher salaries, or whether everyone or only those who can afford it have a right to health care. It also completely fails to account for the possibility that rewards are not always equitably based on input or merit as envisioned, but inequitably on other factors such as gender, race, physique, or legacy. From this perspective, equity as an abstract concept of proportionality is straightforward, but the process of defining the value of inputs and outputs is extremely subjective.

People also make justice claims based on criteria other than equity, such as equality and need (Deutsch, 1975; Leventhal, 1976; Sampson, 1975; Scott, Matland, Michelbach, & Bornstein, 2001). Equality is less difficult to define than equity. In the Webster's dictionary equality is defined as, "as great as; like or alike in quantity, degree, or value" (Costello, 1996). The difficulty with equality comes in deciding *what* should be alike in quantity. We have seen earlier that equality is a loathsome concept in some



schools of thought in the US. Novak (1995) states plainly: “It [equality] is wicked. It foments envy and destruction.” What Novak finds so objectionable is the notion of equality of outcome, which is commonly rejected by Americans because it conflicts directly with the principle of equity. How could equal outcomes be justified if some people try harder, have more ingenuity, are more talented, than others? The more popular equality in the US is equality of opportunity (Verba & Orren, 1985; Kluegel & Smith, 1986). Equality in this case is in the opportunity to pursue one’s interests to the best of one’s ability. Although it shares the word equality, equality of opportunity actually has much more to do with equity than with equality of outcome. Equal opportunity, as a distributive justice norm, that is, a moral assertion that all people should have equal opportunities, is really just the same as saying that people should have a chance to be rewarded for their efforts (equity). So as a distributive justice norm, equal opportunity is practically synonymous with equity. But it is essential to differentiate equal opportunity as a distributive justice norm, from the belief that equal opportunity actually exists as an objective condition in reality.

#### *Psychological Research on Distributive Justice Norms*

Early research on distributive just norms utilized social dilemma experiments in which participants were placed in small groups, characteristics of the group such as composition or cohesiveness could be manipulated, and group members were asked to allocate scarce resources to themselves and other group members. Findings from this line of research demonstrate that preferences for equity and equality in allocations vary

between and within persons in relation to many factors. Females tend to prefer equality more than males (Bond & Vinacke, 1961; Leventhal & Lane, 1970). When group members' relative status in the group was manipulated, lower status individuals were more likely to make allocations based on need (d'Anjou, Steijn, & Van Aarsen, 1995) or equality (Lewin-Epstein, Kaplan, & Levanon, 2003; Ritzman & Tomaskovic-Devey, 1992; Shepelak, 1987). When group identity was heightened, allocations were more egalitarian (Dawes, Van de Kragt, & Orbell, 1988). Finally, an individual's wealth increased egalitarian allocations when inequality in the wealth of group members was low, but when inequality was high, self-interest was higher (Komorita & Parks, 1994). Ironically, the more inequality there was in the group the less likely wealthy parties were to share. [For reviews see Komorita & Parks (1994), Sampson, (1975), and Walster & Walster, (1975).]

Later studies measuring equity and equality as personal values have focused on relative preference for these values as an individual difference variable. The importance of values as predictors of behaviors has been widely discussed by numerous authors (Allport, 1954; Braithwaite & Law, 1985; Prilleltensky, 2001; Rokeach, 1973; Schwartz, 1994). Values are defined by Shwartz as goals "that serve as guiding principles in the life of a person or other social entity" (1994, p. 21) and by Rokeach as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973, p. 5). Rokeach proposed that political ideologies could be classified along two

orthogonal dimensions, freedom and equality. Using content analysis of representative political writings, Rokeach reliably differentiated between communist, socialist, capitalist, and fascist texts by tallying the relative frequencies of equality and freedom themes. Although factor analytic studies have not supported this two-factor structure of values, equality has consistently been found to be a more powerful predictor of political ideology than freedom (Braithwaite, 1994). Supporters of left-leaning political parties and policies consistently place greater emphasis on equality (Sidanius, 1990).

The value of equality also figures prominently in research on social dominance orientation (SDO; Sidanius & Pratto, 1999). Pratto, Sidanius, Stallworth, & Malle (1994) define SDO as “one’s degree of preference for inequality among social groups” (p. 741). The authors present a 14-item measure of attitudes towards equality and inequality that produced a single internally consistent scale along with evidence for convergent and discriminant validity. Findings included that males were higher in SDO, and participants higher in SDO were more likely to pursue “hierarchy enhancing” careers such as business and law whereas persons in “hierarchy attenuating” careers like social work or counseling were lower in SDO. SDO was positively associated with the belief in equal opportunity and conservative political identity, and negatively associated with support for egalitarian policies like gay rights, women’s rights, welfare, and affirmative action. Additionally, participants high in SDO were less likely to endorse the idea that persons with more resources should share them with persons with less.

There is also evidence that although they seem logically incompatible some people actually hold a mixture of equity and equality distributive justice norms. Rasinski (1987) examined personal values of egalitarianism (equality) and proportionality (equity) as predictors of fairness judgments of processes and distribution of government benefits and college scholarships. Rasinski provided tentative support for a two-factor equity/equality values measure and found that these two factors were moderately negatively associated ( $r = -.58$ ). Notably equity and equality formed separate scales indicating that they are not mutually exclusive, though they were inversely related. Similar to earlier studies, men and conservatives were significantly more equity oriented. The study also demonstrated that persons who valued equity more than equality tended to emphasize procedural justice in their judgments of government fairness, whereas participants favoring egalitarianism based judgments of government fairness on procedural *and* distributive justice. In other words, participants favoring equity based overall fairness judgments primarily on their view of the fairness of the process by which resources were distributed, whereas participants favoring equality based overall fairness judgments on both the process and the outcome of the distribution of resources. These findings suggest that persons endorsing equality are also concerned with equity (procedural fairness), they just don't assume that fair processes *necessarily* result in fair outcomes.

One problem with Rasinski's study is that the measure of proportionality was actually a combination of items measuring equity and individual attributions. An initial

factor model with separate factors for equity and individual attributions was rejected because individual attribution style was too highly correlated with equity. This correlation was likely due to the fact that the individual attributions scale concerned attributions about the state of “poor people” at the same time that the equity measure used items explicitly dealing with “welfare”. Rasinski’s proportionality measure also does not differentiate between equity as a distributive justice norm (i.e., an ideal for how resources should be distributed) and equity as an observation of how fairly resources are distributed in society. For example the proportionality measure contains one item dealing with equity as an ideal (e.g., “Anybody receiving welfare in this country should be made to work for the money they get”) and the observation of equity in reality (e.g., “All things considered, most people get just what they deserve out of life”), the latter of which is similar to belief in a just world (Rubin & Peplau, 1975; Lerner, 1980). Scales measuring belief in a just world (Rubin & Peplau, 1975) are often described as measures of proportionality as a justice norm (e.g., Nosworthy, Lea, & Lindsay, 1995), but it is important to distinguish between the belief that valued resources should be distributed proportionally, and beliefs about how proportionally resources actually are distributed. Just World scales appear to measure the latter, whereas scales such as the Belief in Merit Scale (Davey, Bobocel, Son Hing, & Zanna, 1999) tap the belief that proportionality is a desirable ideal for distributions of rewards. As shown below, there is literature to suggest that perceptions of how resources are distributed affect individuals’ views about how resources should be distributed.

The literature on distributive justice norms suggests that the endorsement of equality of outcome as a distributive justice norm is an important individual difference variable which can be expected to predict support for redistributing wealth from those who have more to those who have less (i.e., reducing economic inequality). However there is also evidence that persons endorsing equality of outcome are also concerned about equity. If equality of outcome violates the equity distributive justice norm, why would some people endorse equality of outcome while still valuing equity? The studies reviewed below suggest that affinity for equality of outcome depends upon one's analysis of how fairly resources are being distributed. If resources are not judged to have been distributed fairly in the first place then equality of outcome becomes more acceptable.

In one group of studies (Mitchell, Tetlock, Mellers, & Ordonez, 1993; Mitchell, Tetlock, Newman, & Lerner, 2001; Scott, Matland, Michelbach, & Bornstein, 2001) participants were asked to judge the fairness of a range of income distributions for a hypothetical society, which varied in terms of equality and overall prosperity, while the perceived level of proportionality that exists in the society was manipulated (i.e., the degree to which income is based on merit). Again, although individuals generally held a mixture of competing distributive justice norms, politically liberal participants, women, and participants with low SES were generally more likely to prefer egalitarian distributions. These studies have also shown that one's understanding of how resources are distributed is a determining factor in distributive justice preferences. Specifically, as the perceived meritocracy of the society increased (i.e., participants believe income is

based on ability) preferences for equality decreased for all participants. In other words, belief in a level playing field decreases preferences for equality (Mitchell et al., 2001). This finding suggests that the perception of how fairly resources have been distributed in the first place is an essential determinant of endorsement of distributive justice norms.

A similar finding concerning equity was produced by Bobocel et al. (1998) in a study examining attitudes towards affirmative action. The authors found a marginally significant moderating effect of perception of discrimination in the workplace on the negative relationship between equity values and support for affirmative action. The negative effect of equity values on affirmative action support only occurred for people who believed there was little discrimination in the workplace. In this study, the belief that equal opportunity exists determined the relationship between the equity distributive justice norm and support for affirmative action. That is, equity was more likely to be used as a reason for opposition to affirmative action when participants believed that there was equal opportunity in the workplace. This finding suggests that the perception that resources have been distributed fairly, beyond influencing the level of endorsement of distributive justice norms, also can influence the relationship of the norms to support for policies to reduce inequality.

The literature on distributive justice norms provides evidence that equity and equality will be related to support for policies to reduce inequality. There is also reason to believe that interpersonal differences in commitment to either equality or equity may be explained by one's analysis of how fairly resources are being distributed. That is,

views about how resources *should be* distributed are dependent on views about how resources *are* distributed. The studies reviewed above suggest that the assessment of how fairly resources have been distributed is essentially an assessment of the extent to which economic outcomes are solely determined by individual merit. If structural factors play a role, for example if some people enjoy greater opportunity due to a privileged upbringing, or less opportunity because of discrimination, then resources have not been distributed fairly, and equality of outcome should become a more desirable distributive justice norm, despite prevailing preferences for equity. The relationship between the distributive justice norms and support for policies to reduce inequality may also be dependent on one's analysis of how fairly resources are being distributed. Equity may be more strongly related to opposition to reducing inequality when respondents believe that resources have been distributed fairly. In the remainder of this literature review, I examine individual perceptions regarding how fairly resources are distributed in greater detail, focusing on causal attributions made about how resources are distributed in society. Individuals may believe that poverty and wealth are attributable solely to characteristics of the individual, or they may also believe that external factors such as discrimination and privilege determine poverty and wealth. In this study, attributions of poverty and wealth to factors external to the individual will be referred to as systems analysis.



*Causal Attributions and Systems Analysis*

The idea of personal responsibility is a dominant cultural value in the US. Bellah et al. (1985) wrote that “we are united, as it turns out, in at least one core belief, even across lines of color, religion, region and occupation: the belief that economic success or misfortune is the individual’s responsibility, and his or hers alone” (p. viii). The idea that people are primarily responsible for their own success, and that anyone can succeed by just pulling themselves up by their bootstraps is widespread. Hinderaker and Johnson (1996) maintain that “for the most part, upper-income American families do better than lower-income families because they toil harder.” A recent article in *The Economist* refers to a Brookings Institution report which finds that “if all the heads of poor households who are neither elderly nor disabled had graduated from high school, worked full time, married before they had children and then had no more than two children per family, the poverty rate in America would be 3.7%” (“Poor prospects”, 2004). In this formula, success results in rather straightforward fashion when individuals make responsible decisions; individuals have only to make those decisions. The idea of self-reliance can be decomposed into a moral component, which is the degree to which one feels that people are primarily responsible for themselves or for each other, and a cognitive component—an individualistic causal attribution style.

*Causal attributions.* Experimentation in social psychology has demonstrated the tendency of Americans to attribute individuals’ behaviors to dispositions rather than situations, a tendency known as the fundamental attribution error (Ross, 1977).

According to Daniel Gilbert, “in study after study, observers claim that others ‘are the way they act,’ and they make such claims even when compelling circumstances can explain the observed behavior quite adequately,” calling this “one of the most reliable and robust findings in the annals of attribution research” (1995, p. 106). A prime example of the fundamental attribution error is the phenomenon of “blaming the victim” that William Ryan (1971) described, whereby persons who are oppressed actually come to be blamed for their oppression, for example blaming a rape victim for being raped. Such a tendency towards individual attributions for behavior has been repeatedly demonstrated in previous research on attitudes toward economic inequality.

In a large sample public opinion survey in 1945, US residents were asked, “Why are some people always poor?” Findings indicated that explanations tended towards individual attributions such as lack of effort, money mismanagement, and character deficits (Allen, 1970). Thirty years later, Feagin (1975) classified lay attributions of poverty into three empirical categories: individualistic (deficits of poor people), structural (deficits of society and economic systems), and fatalistic (bad luck or fate), and found a similar tendency towards individualistic attributions of poverty. Furnham (1999) reports that a number of subsequent factor analytic studies have consistently supported Feagin’s three-category classification. In Feagin’s study, structural attributions for poverty included macro-economic factors such as low wages and job shortages, failure of government to provide education equally to all segments of the population, and racial discrimination.

International comparisons reveal that Americans are distinctly more likely to make individualist attributions of poverty than persons in other countries. Recent research by Alesina and Glaeser (2004) using data from the World Values Survey for the years 1983 to 1997 found that 60% of Americans believe that poor people are lazy compared to 26% of respondents from the European Union, and 29% of Americans believe that the poor “are trapped in poverty” compared to 60% of Europeans (p. 184). Within US culture, White males of middle to high SES have been consistently shown to prefer individualistic attributions of poverty (Bobo, 1991; Cozarelli, Wilkinson, & Tagler, 2001; Feagin, 1975; Kluegel & Smith, 1986; Lee, Jones, & Lewis, 1990).

As one might expect, the types of attributions a person makes about poverty are related to the types of solutions they see as appropriate. Individuals who attribute poverty to individual deficits have more negative views of redistributive policies such as welfare. (Feagin, 1975; Lee, Jones, & Lewis, 1990). Kluegel and Smith (1986) found that individual and structural attributions for poverty were independent constructs, and that structural attributions for poverty were more powerful predictors of attitudes toward social policy than individual attributions. Similarly, Bobo (1991) found that individuals who gave higher priority to structural attributions for inequality than individual attributions were significantly more supportive of policies designed to reduce racial and economic inequality, and this effect was particularly strong for Whites. These findings give reason to expect that people who make structural attributions for poverty will more strongly support policies to reduce inequality.

The association between attribution style and racial group membership may be explained by the relationship between the race of the poor person and the race of the person making the attributions. Iyengar (1990) examined White middle class individuals' attributions of poverty in response to mock video news coverage of poor people. Iyengar manipulated the race and gender of the poor person and found that respondents were more likely to assess causal responsibility and treatment responsibility (recommended solution) to individual rather than societal causes when the poor person was Black and female. Iyengar noted that ironically the persons most likely to be poor were also the most likely to be blamed for being poor and held responsible for getting themselves out of poverty. Earlier studies of attribution that accounted for the relationship between the race of the participant and the target found that dominant group members are more likely to make internal attributions of desirable behaviors of in-group members and of undesirable behaviors of out-group members (Pettigrew, 1979; Hewstone & Ward, 1985; Hunter, Stringer, & Watson, 1991; Taylor & Jaggi, 1974). In similar fashion, intergroup bias is negatively related to support for public efforts to reduce poverty and inequality. Alesina and Glaeser (2004) presented cross-national data that reveal that the level of racial diversity in a nation is strongly negatively associated with the level of social welfare spending in a country. These authors cite a similar pattern among US states. For example, amounts of 1990 AFDC payments ranged from a high of \$800 per month in mostly White Alaska, to a low of \$150 in Mississippi and

Alabama [1<sup>st</sup> and 5<sup>th</sup> respectively, among states in terms of proportion of African American population in 1990 (US Census Bureau, 2001)].

In addition to causal attributions about poverty, individuals also make attributions about prosperity. The dominant cultural ideology idealizes the self-made man who succeeds by virtue of his own merits. For example, Kluegel and Smith (1986) examined lay explanations for why “there are rich people in the US” and found that individuals were more likely to attribute wealth to individual factors such as personal drive, willingness to take risks, hard work, and initiative. An alternative perspective on financial success recognizes the variety of external factors that contribute to individual wealth. The non-profit organization United for a Fair Economy (2004) recently produced a report examining wealth attributions in semi-structured interviews with 12 wealthy individuals including Warren Buffett, the second wealthiest person in the world. Among the external factors identified as contributing to personal success were luck and timing, colleagues and coworkers, parental support, inheritance, skin color and appearance, public infrastructure such as roads and communication systems, and public and private investment in new technologies.

Structural attributions for wealth are at the center of the acknowledgement of privilege concept, which is a recently developing area of research in the multicultural counseling psychology field. Work in this area examines the acknowledgement of privilege by privileged persons, focusing primarily on privilege obtained from

membership in dominant gender and racial groups, but other groups as well such as sexual orientation and class.

In developing her model of White racial identity development Helms (1984) asserted that the major developmental issue for Whites in the development of a healthy White racial identity is the abandonment of White privilege (1995). Describing acknowledgment of privilege precisely as a departure from the dominant US cultural ideology, McIntosh (1989) writes,

“obliviousness about White advantage, like obliviousness about male advantage, is kept strongly inculturated [*sic*] in the United States so as to maintain the myth of meritocracy, the myth that democratic choice is equally available to all.

Keeping most people unaware the freedom of confident action is there for just a small number of people props up those in power, and serves to keep power in the hands of the same groups that have most of it already” (p. 12).

McIntosh (1988) developed a list of the privileges of White racial group membership based on her own life experiences that is one of the few detailed descriptions of racial privilege in the literature. Items from her list include: “Whether I use checks, credit cards, or cash, I can count on my skin color not to work against the appearance that I am financially reliable,” and “I can be pretty sure of finding people who would be willing to talk with me and advise me about my next steps, professionally” (p. 98). Further describing the nature of privilege, Lazos Vargas (1998) writes:

“White privilege means having entry to structures and institutions that mete out important economic opportunities, having access to neighborhoods, jobs, credit, and tax benefits that by and large are off limits or available in limited fashion to minorities; it means being presumed competent, intelligent, and hardworking; it means not being discriminated against daily by anyone ranging from a restaurant attendant to a car salesperson” (p. 1527).

Although there are numerous conceptual descriptions of privilege, empirical studies on the topic are limited. Ancis and Szymanski (2001) used qualitative analysis to examine White counseling trainees reactions to McIntosh’s (1988) list. They found participants’ reactions clustered into three themes: 1) lack of awareness and denial of White privilege, 2) awareness of White privilege and discrimination, and 3) higher order awareness of privilege and action. In another study, Pinterits (2004) associated high scores on an original scale of White privilege acknowledgment with lower scores on Sidanius and Pratto’s (1999) measure of social dominance orientation and McConahay’s (1986) Modern Racism Scale.

Acknowledgement of White racial privilege is a component of the Color-Blind Racial Attitudes scale (CoBRAs; Neville, Lilly, Duran, Lee, & Brown, 2000) that assesses the idea that race should not and does not matter. CoBRAs theory developed from McConahay’s (1986) work on Modern Racism that was based on the idea that as racism has become less acceptable in the cultural mainstream racist attitudes have taken on a more subtle and covert cast. CoBRAs theorists suggest that denial that racism

exists, or color-blindness, is one of the more recently developing and publicly acceptable manifestations of modern racism. The CoBRAs measure developed by Neville et al. produced three-factors, the first of which was an acknowledgement of White privilege scale that showed strong evidence for reliability, and convergent, discriminant, and criterion-related validity. This scale measures acknowledgement of racial privileges in obtaining financial success, criminal justice, social services, and general opportunity.

*Systems analysis.* In the present study I propose that the tendency to make structural attributions for poverty and wealth is part of an underlying competence for understanding a wider sphere of causality beyond the relatively simple view that individual's determine their outcomes through their own intentionality. Both structural attributions of poverty and prosperity entail the ability to recognize the structural, environmental, and contextual factors that contribute to behavior *in addition to* individual qualities of character. This competence, which will be referred to as systems analysis, represents the shift from a focus on individual units of behavior to a focus on other sources of causality such as the independent effects of combinations and networks of behavior, the effects of non-individual actors such as organizations and institutions, and the limiting effects of systems such as organizational rules and societal norms that govern behavior to a certain extent. This shift to higher-level units of conceptualization is exemplified in the emergence of ecology from biology (Capra, 2002), of sociology from social work (Martin, 2003), and of community psychology from clinical psychology



(Kelly, Ryan, Altman, & Stelzner, 2000). The same broadening of causal understanding also figures prominently in work on critical consciousness.

Introducing the idea of critical consciousness, Freire (1970) described a process through which oppressed persons discover the larger social forces that determine their oppression. Freire writes that “the pedagogy of the oppressed... makes oppression and its causes objects of reflection by the oppressed, and from that reflection will come the necessary engagement in the struggle for their liberation” (p. 48). Serrano-Garcia (1994), after identifying that asymmetrical distributions of material resources determine power in dominant/subordinate relationships, pointed out that consciousness of asymmetry also determines power. She defined consciousness as “the individual or collective grasp of prevailing ideologies” (p. 10) and cited the Spanish-language work of Ander-Egg (1980) who specified four stages of consciousness: submissive, precritical, critical-integrative, and liberating. In the precritical stage, people “begin to search for explanations and to make causal attributions,” and at the critical-integrative stage they “begin to analyze the social and historical roots of asymmetry and initiate change efforts” (p. 11). Similarly, Watts, Williams, and Jagers (2003) proposed a model of sociopolitical development in which persons begin “to look beyond facile explanations for events ... injustice begins to be understood in historical context, and as sociopolitical development proceeds, the developing individual acquires a more systemic perspective on his or her life circumstances and current events” (p. 188).

Although theoretical and empirical developments on the topic of critical consciousness raising are not sufficiently advanced to describe the specific components of systems analysis, it is clear that the broadening of causal understanding characteristic of critical consciousness includes broadening of both spatial and temporal perspectives. The causes for any individual outcome are rooted in: 1) the spatial context of the individual, which includes a variety of higher-level structural aspects such as social relations, group dynamics, environmental qualities, cultural norms, institutional practices, and societal characteristics as well, and 2) the temporal context of the individual which consists of the web of historical events preceding an individual's actions which are inevitably a factor in determining what actions happen next. Fletcher et al. (1986) make a similar distinction in a study of "attributional complexity." They describe two varieties of external causal attributions—a spatial dimension which "may be seen as radiating out spatially and contemporaneously from the person" and another temporal dimension that exerts "influence from the distant past, perhaps through chains of intermediary causes" (p. 877). A measure of attributional complexity developed for that study included items for both dimensions of external attribution, and results indicated that the scale was unidimensional.

Systems analysis entails a broader understanding of an event than just the immediate qualities that are located spatially within the actors in the event, and temporally at the present time of the event. In the case of economic outcomes, an event like poverty is understood to be caused by both qualities of the poor themselves, but also

by: 1) qualities of the spatial context in which the poverty occurs --characteristics of the person's environment, family, school, job market, housing market – the full range of characteristics of society that affect how financially successful one is in society, as well as 2) the temporal context in which the poverty occurs – what is the poor person's history, how have their previous conditions influenced their present condition, and how will their present condition influence their future? The definition of systems analysis can be elaborated much more completely depending upon the specific phenomenon to be analyzed. However, a detailed definition of systems analysis exceeds the purposes of the present study, given that the most rudimentary structural attributions tend to be deviations from the common American ethic of personal responsibility (individual attributions) and will likely meaningfully differentiate people in the sample. Systems analysis will be represented by the tendency to make structural attributions for both poverty and wealth. Systems analysis will be interpreted as a belief that resources have not been distributed fairly, because outcomes are not determined solely on the basis of individual merit.

As in previous studies (Feagin, 1975; Kluegel & Smith, 1986) systems analysis is expected to be a separate construct weakly correlated with individual attributions, reflecting that for many people structural attributions accompany individual attributions for behavior. Individual attributions, reflecting the dominant cultural value of personal responsibility, are expected to be commonly endorsed by participants. As with the equity distributive justice norm, because they are expected to be popular throughout the sample

individual attributions are expected to be weakly associated with support for government action to reduce inequality, but more strongly predictive of opposition to government action to reduce inequality when systems analysis is low. Such a finding would indicate that individual attributions, like equity, are endorsed by both opponents and supporters of reducing inequality, but when people have the associated belief that resources are distributed fairly (low systems analysis) individual attributions will be used as justification for opposition to reductions in inequality.

*Underlying motives for causal attributions.* Although they are obviously essential to beliefs about inequality, individuals' analysis of the causes of economic outcomes may not be as simple as cool-headed rational assessments of reality. As previously reviewed, a number of studies demonstrate that group membership affects the type of attributions people make for success and failure. For example, a number of studies indicate that White males tend to prefer individual attributions for poverty (Bobo, 1991; Cozarelli, Wilkinson, & Tagler, 2001; Feagin, 1975; Kluegel & Smith, 1986; Lee, Jones, & Lewis, 1990). Other studies directly accounting for the interrelationship between the group membership of both the person making the attributions and the target of the attributions have shown that participants are more likely to make individual attributions for desirable behaviors of in-group and undesirable behaviors of outgroup members (Pettigrew, 1979; Hewstone & Ward, 1985; Hunter, Stringer, & Watson, 1991; Taylor & Jaggi, 1974). While these studies have constructed group membership in experimental settings, Iyengar (1990) has produced similar findings for the specific case of racial group membership.

Such findings suggest that the type of analysis of economic outcomes that one commits is not driven solely by one's observation of reality but also by more powerful visceral influences such as intergroup bias.

Relatedly, research on belief in a just world has shown that the psychological discomfort that results from certain observations of reality, such as the perception of injustice, creates so much cognitive dissonance that people actually reshape their view of reality for their own peace of mind (Lerner, 1980). Kluegel and Smith (1986) directly assessed the belief that equal opportunity exists using items that asked participants to compare the opportunity of the wealthy, Blacks, women, and the working class. They found that there was much less acknowledgement that Blacks, minorities, and the working class had less opportunity than that the wealthy had more. This finding suggests that the process of attributing *advantage* to structural factors may be qualitatively different than the process of attributing *disadvantage* to structural factors. The implications of the latter reflect more negatively on society, and therefore may be more psychologically uncomfortable than admitting that a few wealthy people might have benefited from some extra unearned advantages.

One final reason that assessment of structural attributions and the belief that equal opportunity exists may not be as simple as requesting participants' unbiased observations of reality is that both structural attributions and equal opportunity are closely related to associated moral values. As with distributive justice norms, causal attributions have both an objective component and a moral component. Individual attributions for economic

outcomes may be as likely to reflect participants' observation of reality as their commitment to ethics of personal responsibility and self-reliance. That is individual attributions may reflect the view that people *should be* personally responsible for their economic outcomes as much as the view that people actually *are* responsible for their poverty or wealth. Similarly, participants' assessment of the amount of equal opportunity that exists in society may reflect their commitment to equal opportunity as a distributive justice norm, described earlier, which is their belief that people should have equal opportunities rather than their observation of how much people really do have equal opportunities. This ambiguity is a challenge to measurement of these constructs, which will be considered when evaluating the validity of causal attribution and equal opportunity measures in this study.

### *Summary*

In review, predictors of support for government action to reduce inequality will be distributive justice norms equity and equality of outcome along with individual and structural causal attributions. The distributive justice norms reflect views about how resources *should be* distributed, whereas causal attributions reflect individuals' analysis of how fairly resources *are* distributed. Systems analysis is represented by structural attributions for poverty and wealth, which reflect the belief that economic outcomes are not determined solely by individual merit. If factors other than individual merit determine poverty and wealth, then it can be assumed that resources are not distributed fairly.

Systems analysis plays a central role in determining endorsement of distributive justice norms, support for efforts to reduce inequality, and the use of individual attributions as justifications for opposition to inequality. Although equity is the preferred norm of distributive justice in the US, and equality of outcome is generally rejected because it conflicts directly with equity, systems analysis is expected to increase endorsement of equality of outcome because it implies that resources have not been distributed fairly in the first place. Furthermore, although the equity distributive justice norm and individual attributions for poverty and wealth represent dominant cultural values in the US and so are expected to be commonly endorsed by most participants, their relationship to support for government action to reduce inequality is expected to be moderated by systems analysis. Because they are popular, and generally invariant, they will be weakly or unrelated to policy support, but will be negatively related to policy support when systems analysis is low. Therefore the common use of equity and individual attributions as justifications for opposition to policies to reduce inequality is driven by underlying beliefs about how fairly resources are distributed in the first place. Overall, systems analysis is conceptualized as *the* determining factor in attitudes toward inequality, driving both endorsement of distributive justice norms and their use as justifications for opposition to policies to reduce inequality.

## Chapter Two: Introduction to the Present Study

This paper will examine psychological attitudes towards economic inequality in the United States. In the United States, the degree of income inequality is the largest among developed nations (EPI, 2004) and growing. Empirical studies have shown that high levels of economic inequality are associated with higher mortality, and lower interpersonal trust, civic engagement, and political participation (American Political Science Association, 2004; Kawachi et al., 1997), even after controlling for the effects of poverty. The distribution of society's resources is a complex process that is multiply determined by a variety of macro-system factors such as the shift from manufacturing to service-sector jobs, off-shoring of jobs, the decline in the real-value of the minimum wage, decreased union membership, and the failure to implement public policies (e.g., minimum wage hikes, progressive taxation, and welfare) that mitigate the effects of growing inequality (Center for Budget and Policy Priorities, 2002). The present study focuses on systems analysis, the extent to which one acknowledges that, in addition to individual qualities of character, factors external to the individual also determine economic outcomes, as a predictor of support for government action to reduce inequality.

Attitudes toward inequality comprise a network of interdependent values and beliefs concerning how resources such as money and opportunity *should be* distributed in society, and how they actually *are* distributed. Distributive justice norms of equity and equality of outcome represent moral commitments about how resources should be distributed. Causal attributions for poverty and wealth represent individuals' analysis of



how resources actually are distributed in society. Systems analysis is the acknowledgement that not only individual factors but structural factors external to the individual also determine economic outcomes. Systems analysis represents a specific case of critical consciousness applied to the problem of economic inequality. This study will address the following hypotheses:

*Hypothesis 1: Equity and equality of outcome are not mutually exclusive – they will be measured by separate weakly correlated constructs; Hypothesis 2: Equity will be commonly endorsed by participants, whereas equality of outcome will be endorsed by few participants.* The dominant distributive justice norm in the US is equity (Walster & Walster, 1975), which is the belief that rewards should be distributed proportionally based on inputs. Although equality is a prominent value in American culture, primarily it is equality of opportunity (Verba & Orren, 1985). Equality of outcome is a much less popular ideal, so unpopular that calls for reductions in inequality are often confused with calls for outright equality of outcome (Ryan, 1981). Previous studies have shown that equity and equality of outcome can be measured by separate constructs (Mitchell, Tetlock, Mellers, & Ordonez, 1993; Mitchell, Tetlock, Newman, & Lerner, 2001; Rasinski, 1987; Scott, Matland, Michelbach, & Bornstein, 2001), which, although they are negatively correlated, indicate that some people endorse both norms. The reason for this logical conflict is found in the analysis of how fairly resources are distributed in the first place. Although the sample is expected to be fairly homogeneous in terms of

distributive justice norms, people are expected to differ in how they analyze the causes of inequality.

*Hypothesis 3: Individual and structural causal attributions will be weakly negatively correlated reflecting that they are not mutually exclusive attitudes; Hypothesis 4: Structural attributions for poverty and wealth are expected to form a single systems analysis construct; Hypothesis 5: Systems analysis is expected to be a stronger predictor of support for redistribution than individual attributions, which will be commonly endorsed by respondents.* Causal attributions represent one aspect of individuals' analysis of how resources are distributed. The dominant cultural ideology in the US emphasizes the importance of personal responsibility which explains the American tendency towards individualistic causal attributions (Alesina & Glaeser, 2004; Feagin, 1975). Structural attributions represent the acknowledgement that individual qualities of character are not the sole determinants of economic outcomes, but that factors external to the individual also determine economic outcomes. The tendency to make structural attributions is referred to as systems analysis. Because systems analysis does not preclude the value of personal responsibility, individual attributions and systems analysis are expected to be measured by separate, weakly correlated constructs, reflecting again that many people make both individual and structural attributions for economic outcomes (Kluegel & Smith, 1986). Because it is less common, systems analysis is expected to be a stronger predictor of support for government action to reduce inequality than individual attributions.

*Hypothesis 6: Effects of equity and individual attributions on support for government redistribution will be moderated by systems analysis. When systems analysis is low, equity and individual attributions will be strongly negatively related to support for redistribution. In contrast, when systems analysis is high, equity and individual attributions will be unrelated to support for redistribution.* Structural attributions for poverty and wealth reflect the view that resources have not been distributed fairly. For example, if one acknowledges that racial discrimination plays a role in determining who becomes poor, or that growing up in a wealthy family makes one more likely to be wealthy as an adult—both examples of structural attributions—the implication is that resources have not been distributed solely based on merit. As such systems analysis represents the view that resources have not been distributed fairly. People who believe that resources have not been distributed fairly should be more likely to endorse equality of outcome, despite prevailing preferences for equity. Similarly, redistribution should be more justifiable among persons who believe that resources have not been distributed fairly. Most importantly dominant cultural values like equity and individual attributions should only be negatively related to support for government action among persons who believe that resources have been distributed fairly.

The primary purpose of this study is to explore the associations between the constructs I have reviewed, and to examine their effects on support for efforts to reduce economic inequality. Specifically, this study aims to illustrate that opponents and supporters of reducing inequality share a common endorsement of dominant cultural

values like personal responsibility and just deserts. However, supporters of inequality reduction differ from opponents in the extent to which they acknowledge that systemic factors, and not only individual qualities of character determine who is rich and who is poor. These findings would ultimately be intended to clarify public discourse on economic inequality. These findings would also suggest that an understanding of the structural determinants of resource distribution are the appropriate target for educational interventions that seek to inform people about causes and solutions to economic inequality.

A secondary purpose, and a necessary step preceding the primary purpose, is to improve the conceptual and empirical clarity of constructs germane to attitudes toward inequality. The first step of my analyses will be to confirm a measurement model based on the theoretical constructs that I have established in my review. Conceptual organization of constructs is displayed in Figure 1. Items from a survey administered as part of the International Social Justice Project will be used to assess the following constructs: 1) equity distributive justice norm, 2) equality distributive justice norm, 3) individual attributions, and 4) structural attributions. Although individual and structural attributions might be conceptualized as opposite ends of a single continuum, previous studies have shown them to be sufficiently independent to warrant measuring them as separate constructs. The same is true for the distributive justice norms, equity and equality. It is hoped that by the inclusion of items representing all of these constructs

shown to be interrelated in the determination of attitudes toward inequality the true structure of these attitudes will emerge.

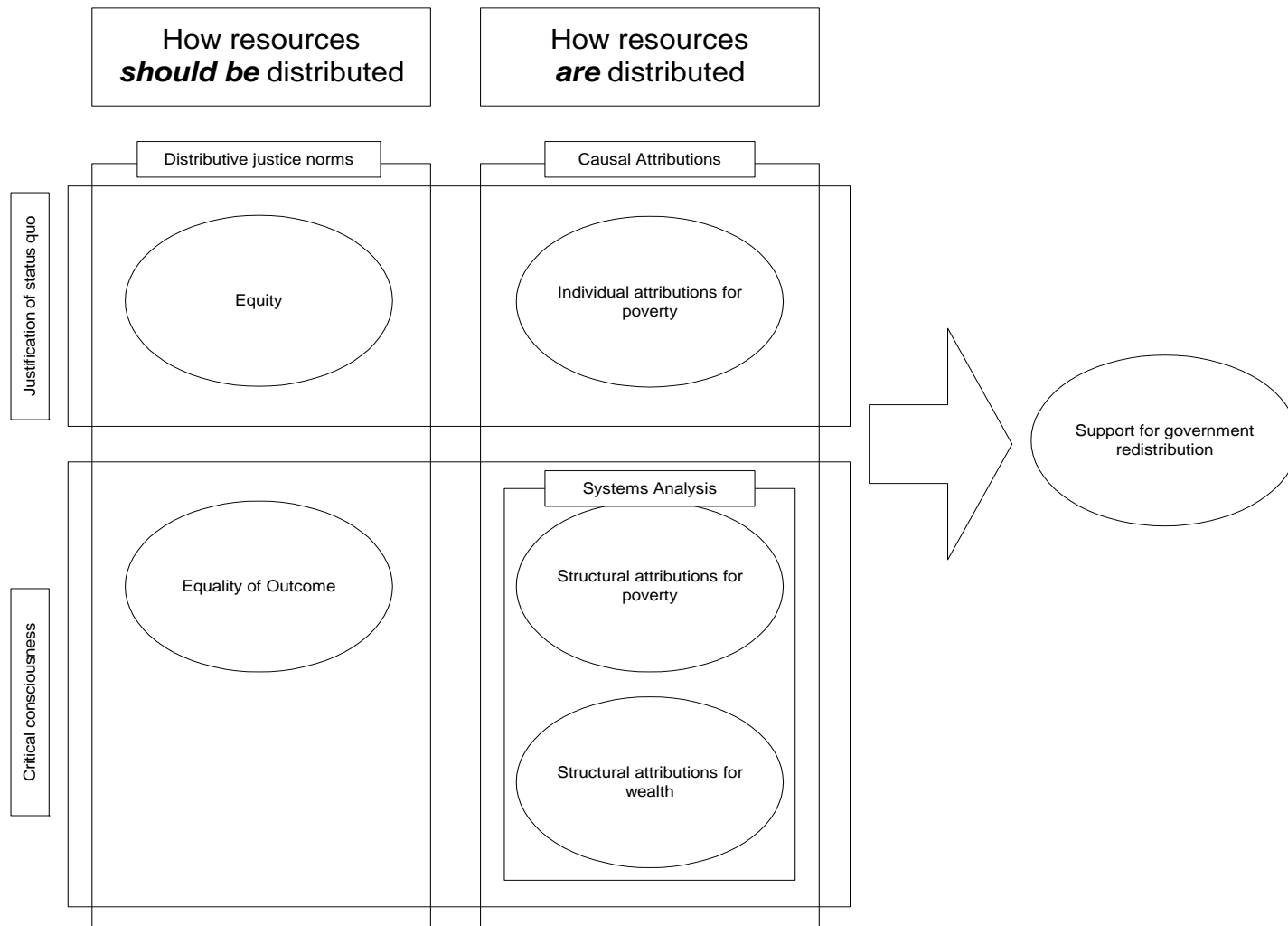


Figure 1. *Conceptual Organization of Predictors*

### Chapter Three: Method

Data for this study are from the 1991 International Social Justice Project, an international collaborative research project that explored popular beliefs and attitudes on social, economic and political justice through two large-scale opinion surveys fielded in thirteen countries in 1991. The participating countries were Russia, Estonia, Poland, Hungary, Czechoslovakia, Bulgaria, Slovenia, East and West Germany, the United States, England, Holland, and Japan.

#### *Participants*

Only data for US respondents ( $n = 1414$ ) were analyzed. More than half (56%) were women and the large majority of the sample was White nonhispanic (86%). Additionally, 9% were Black nonhispanic, 3% were Hispanic, 1% were American Indian/Alaska Native, and .9% were Asian. On an age variable with ordinal categories, the median was 36 to 45 years, 12% were younger than 26, and 15% were older than 65. In terms of education, 9% of the sample graduated from high school, 30% had additional vocational training, 32% were college graduates, 19% had master's degrees, and 7% had doctoral degrees. The average reported annual income was \$43,700 ( $SD = \$52,100$ ). Self-reported social class was measured on a five-point scale ranging from lower to upper class on which 4% of respondents identified themselves as lower class, 28% as working class, 49% as middle class, 17% as upper middle class, and 2% as upper class. Finally, a seven-point scale measuring political party identification (1=Strong Democrat / 7 = Strong Republican) indicated an even distribution with 44% of respondents selecting

some degree of Democratic affiliation, 45% some degree of Republican affiliation, and 11% selecting the midpoint of the scale, 'neither'. Judging by the 1990 US Census (1990) this sample slightly overrepresents women (51%) and Whites (80%).

### *Procedure*

The US survey for the ISJP used random sampling of US citizens aged 18 or older residing in telephone households in the continental US. A two-stage process was used for selection of telephone numbers to ensure representativeness of the sample with regard to geography and population density (Appendix A). The response rate was 71.7% and the completion rate was 68.1%. Interviews were conducted by 48 trained telephone interviewers of the Survey Research Center in the Institute for Social Research at the University of Michigan. Interviews lasted an average of 52 minutes.

### *Measures*

The survey for the ISJP was developed by an international panel composed primarily of sociologists and some social psychologists with expertise on justice views. Survey development occurred over a series of meetings of collaborators from all thirteen participating countries at which relevant constructs and appropriate items were suggested, agreed upon, and pretested. The final survey contained 100 items dealing with a broad range of demographic variables and economic justice related attitudes. Based on item content, a total of 39 items dealing with distributive justice norms (equity or equality), individual attributions, systems analysis, and support for government



redistribution were selected for the present analysis. These items used either four- or five-point Likert response formats.\*

### *Plan of Analysis*

Because items comprising the survey were not developed as scales but as separate items, there was no *a priori* basis for treating groups of items as scales. A review of the subsequent literature on the US sample of the ISJP revealed that the data from this portion of the sample has not been examined to establish scales and has been underutilized in general. One study which did examine the factor structure of items from the US sample compared to West Germany and England (Swift, Marshall, Burgoyne, & Routh, 1995) used a series of items dealing with fairness judgments in hypothetical situations of limited resources such as hospital care and affordable housing (e.g., among people needing a medical treatment necessary for survival, who deserves it most?). This study used a pool of items quite different than those relevant to the present study. Therefore, the analysis began with the establishment of a measurement model using exploratory factor analysis of the 39 selected items in a randomly selected half of the sample. This measurement model was then confirmed in the second half of the analysis.

Once the measurement model was established, a hybrid structural equation model was tested specifying direct effects of latent constructs representing distributive justice norms, individual attributions, and systems analysis on the outcome, support for government action to reduce inequality. This part of the analysis tested the relative

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\* For full details of the original study methods see the ISJP website

effects of each predictor construct on the outcome. Finally, multigroup modeling was used to test for moderation of the effects of equity and individual attributions on the outcome by systems analysis.

## Chapter Four: Results

### *Descriptive Statistics for Initial Item Pool*

The sample was initially split into two halves of 707 respondents using random selection of cases. Each sample half was screened for missingness and univariate and multivariate normality (Appendix B). Deletion of multivariate outlier cases resulted in a Half 1 sample of 659 cases and a Half 2 sample of 668 cases. Descriptive statistics from the combined sample for each item from the initial item pool are shown in Table 1.

Table 1. *Descriptive Statistics for Each Item from the Initial Item Pool (n = 1327)*

	<i>M</i>	<i>SD</i>	Skew	Kurt
In your view, how often is each of the following factors a reason why there are poor people in the US today? (1 = Very often / 5 = Never)				
V150 Lack of ability or talent	2.79	.99	-.01	-.37
V152 Loose morals and drunkenness	2.65	1.00	-.04	-.69
V153 Lack of effort by the poor themselves	2.49	.93	.01	-.56
V154 Prejudice and discrimination against certain groups in the US	2.75	.95	-.09	-.34
V155 Lack of equal opportunity	2.85	.96	-.13	-.43
V156 Failure of the economic system	2.60	.98	.10	-.56
In your view, how often is each of the following factors a reason why there are wealthy people in the US today? (1 = Very often / 5 = Never)				
V160 Ability or talent	2.27	.89	.27	-.35
V162 Dishonesty	2.61	.98	-.15	-.85
V163 Hard work	2.16	.92	.52	-.17
V164 Having the right connections	1.95	.79	.39	-.52

	<i>M</i>	<i>SD</i>	Skew	Kurt
V165 More opportunities to begin with	2.21	.89	.27	-.63
V166 The economic system allows them to take unfair advantage	2.71	1.00	-.07	-.68
V178. Differences in incomes exist because ordinary people simply accept it. (1 = Strongly agree / 5 = Strongly disagree)	2.73	1.19	.42	-.99
V179. There is an incentive for individual effort only if differences in income are large enough.	2.58	1.24	.56	-.90
V180. It is all right if businessmen make good profits because everyone benefits in the end.	2.90	1.43	.16	-1.44
V181. People would not want to take extra responsibility at work unless they were paid extra for it.	2.30	1.35	.73	-.88
V196. The government should guarantee everyone a minimum standard of living.	2.71	1.46	.31	-1.38
V197. The government should place an upper limit on the amount of money any one person can make.	4.21	1.26	-1.52	.93
V198. The government should provide a job for everyone who wants one.	2.93	1.60	.08	-1.63
V248. In the US, people have equal opportunities to get ahead.	2.53	1.19	.65	-.75
V249. In the US, people get rewarded for their effort.	2.40	1.07	.92	-.04
V250. In the US, people get what they need.	3.18	1.22	-.01	-1.32
V251. In the US, people get rewarded for their intelligence and skill.	2.30	1.03	.99	.26

	<i>M</i>	<i>SD</i>	Skew	Kurt
V252. The fairest way of distributing wealth and income would be to give everyone equal shares.	3.92	1.24	-.92	-.36
V253. It's fair if people have more money or wealth, but only if there are equal opportunities.	1.86	1.00	1.41	1.59
V254. People are entitled to keep what they have earned -- even if this means some people will be wealthier than others.	1.53	.80	2.08	5.12
V255. People who work hard deserve to earn more than those who do not.	1.41	.76	2.36	6.15
V256. People are entitled to pass on their wealth to their children.	1.20	.52	3.69	18.12
V257. The most important thing is that people get what they need, even if this means allocating money from those who have earned more than they need.	3.12	1.42	.03	-1.46
V258. It is just luck if some people are more intelligent or skillful than others, so they don't deserve to earn more money.	4.14	1.12	-1.22	.41
V259. It is just that people in some occupations are regarded more highly than people in other ones.	2.42	1.29	.78	-.60
V260. It is just that disadvantaged groups are given extra help so that they can have equal opportunities in life.	1.98	1.00	1.30	1.35
V261. It is just that those who can afford it obtain better education for their children.	2.47	1.41	.60	-1.05

Here are some factors which are sometimes considered important for having a high social standing. Please tell me how important you think each is for success in our society today:  
(1 = Very important / 4 = Not at all important)

	<i>M</i>	<i>SD</i>	Skew	Kurt
V275. Social background	2.07	.81	.53	-.04
V276. Ability and talent	1.56	.60	.71	.29
V277. Hard work and effort	1.34	.55	1.34	.98
V278. Having the right connections	1.81	.80	.86	.39
V279. One's sex	2.64	.91	.05	-.89
V280. Belonging to a particular (racial or ethnic/national group)	2.60	.97	.00	-1.00

Descriptive statistics for individual items reflect some notable preliminary findings. Responses to the causal attribution items (V150-V166) indicate greater endorsement of structural attributions for wealth than for poverty. For example, participants were significantly more likely to agree that the wealthy have more opportunity, than that the poor have less [(V155-V166) average difference = .64;  $t(1326) = 19.82, p < .001$ ]. Participants were most likely to attribute poverty to lack of effort, and wealth to hard work/effort. By contrast, they were least likely to attribute poverty to lack of equal opportunity, and wealth to unfair advantage. High social standing (V275-V280) was most commonly attributed to individual characteristics, but participants were markedly less likely to attribute social standing to gender or racial group membership. For example, comparing attributions of social standing to race versus hard work, the average difference between items 280 and 277 was 1.25, indicating significantly less acknowledgement that race determines high social standing [ $t(1326) = 37.92, p < .001$ ].

Items V252-V261 assessed different aspects of distributive justice norms. For example, item V252 assessed participants' endorsement of outright equality of outcome. The mean for this item was among the highest of all items and the frequency distribution was skewed towards disagreement (5% strongly agreed; 45% strongly disagreed). In contrast, V254 and V255 measured endorsement of the equity distributive justice norm. These items had among the lowest means and standard deviations in the collection of items, indicating widespread endorsement of the equity principle. They were also among the three variables (V254-V256) with significant departures from normality (absolute

value of skewness/kurtosis statistic  $> 2.3$ ; Lei & Lomax, 2005). This supports the hypothesis that equity would be commonly endorsed by most participants. Furthermore, the high means for equality of outcome and redistribution items (V252, V257, V258) support the hypothesis that equality of outcome as a distributive justice norm would be rejected by most participants.

#### *Exploratory Factor Analysis*

To determine the structure of attitudes toward inequality, exploratory factor analysis (EFA) was conducted on the 39 items using principal axis extraction and varimax rotation. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .734 and Bartlett's Test of Sphericity was significant ( $p < .001$ ), indicating that the observed data were factorable. Visual inspection of the scree plot suggested 5 factors, and the rotated solution was very interpretable.

Twenty items had communalities below .2 and did not have a factor loading above .4 on any of the five factors (Appendix C). These items were omitted from the final model. The remaining 19 items were re-analyzed in a final EFA with principal axis extraction and varimax rotation of five factors. The scree plot for the reduced set of items suggested a six-factor solution that accounted for 43% of the variance in the 19 items. Item loadings from the final exploratory factor analysis are shown in Appendix D.

#### *Confirmatory Factor Analysis*

Next, a confirmatory factor model based on the results from the exploratory factor analysis was fit to the data from the second half of the sample ( $n = 668$ ). The first model,



based entirely on the factor structure from the EFA, specified that each item loaded on only one factor according to its highest loading from the EFA. Three correlated residuals were added to account for method variance (common item wording; items originate from the same section of the survey; Appendix E). Effects of these modifications on loadings and meaning of related factors were minimal. These modifications were retained in all subsequent models.

Fit statistics for the specified model based on the EFA fit to the second sample are shown in Table 2 in contrast to two alternative models. The two alternatives considered were a single factor model, and a model with five rather than six latent constructs, combining structural attributions for poverty and wealth into a single factor as a test of the hypothesis that structural attributions for wealth and poverty form a single construct representing systems analysis.

Table 2. *Fit Statistics for Three Specified Models Fit to Half 2 (n = 668)*

	Parameters	$\chi^2/df$	TLI	CFI	RMSEA	PCLOSE
Single factor model	57	11.276	.288	.367	.124	.000
Alternative model	69	2.601	.889	.909	.049	.596
EFA-based model	74	2.119	.922	.939	.041	.989

Results in Table 2 indicate that the best-fitting model is the EFA-based model. The single factor model representing the possibility that all 19 items measure a single construct was not supported. The second alternative model tested the hypothesis that structural attributions for poverty and wealth form a single construct. This model fit

significantly less well than the EFA-based model. The increase in chi-squared was 78.039 on 5 degrees of freedom ( $\Delta\chi^2/df = 15.608$ ), a significant decrease in fit ( $p < .001$ ). The TLI, CFI, and RMSEA were also markedly better for the EFA-based model compared to the alternative model. In sum, fit indices uniformly indicate that the EFA-based model fits better than both the alternative model and the single-factor model.

Overall the results from the EFA in one half of the sample were confirmed in the second half of the sample. Subsequent multigroup modeling across the two halves of sample compared a fully unconstrained model to a model with measurement weights constrained and found adequate fit for both models and no significant differences in fit between models (Table 3). These results indicate both configural and metric invariance of the model across halves of the sample, justifying the assumption that the latent variables are measured similarly in both halves (Appendix F).

Table 3. *Comparative Model Fit Between Two Random Halves of Sample*

Model	param	$\chi^2$	df	$\chi^2/df$	TLI	CFI	$\Delta\chi^2$	$\Delta df$
Unconstrained	147	584.33	271	2.16	.919	.936	--	--
Measurement weights	134	597.32	284	2.10	.923	.936	12.99	13

\* $p < .05$

Taken together these findings indicate that the model fits adequately in both samples. Fit statistics for the combined sample ( $n = 1327$ ) indicate adequate overall fit ( $\chi^2/df = 3.13$ ;  $TLI = .93$ ;  $CFI = .94$ ;  $RMSEA = .04$ ,  $PCLOSE = 1.0$ ). The final model is shown in Figure 2.

The model contains four factors representing different aspects of systems analysis. The first, called *equal opportunity*, was comprised of four items measuring the extent to which respondents feel that people are generally rewarded equitably and that there is equal opportunity one aspect of systems analysis. For example, the highest loading item for this factor reads, “In the US, people get rewarded for their effort”, and another item states, “In the US, people have equal opportunities to get ahead.” Standardized item alpha for the equal opportunity scale was .73.

The next two systems analysis factors assessed structural attributions for poverty and wealth separately. The *structural attributions for poverty* scale is comprised of two items assessing the extent to which poverty is due to inequality of opportunity or discrimination ( $a = .75$ ). The *structural attributions for wealth* scale was comprised of three items assessing the extent to which respondents believe a person being wealthy is due to having more opportunities, having social connections, or an economic system that allows them to take unfair advantage ( $a = .59$ ).

The fourth systems analysis factor assessed individual and structural attributions for “high social standing” rather than poverty or wealth. The items in this factor assessed the importance of race, sex, knowing the right people, and social background as factors in determining social standing ( $a = .73$ ). Aside from item wording this attribution factor, called *group-based attributions*, is different from the other structural attribution factors in that it deals explicitly with social group membership (race and sex; two strongest loading items) as a factor in determining outcomes. These four systems analysis constructs

represent different aspects of respondents' acknowledgement that structural factors determine economic outcomes to a certain extent, and that resources are not distributed solely based on merit.

The fifth factor consists of two items assessing *individual attributions for poverty*. Worded similarly to the structural attribution items, these items measure the extent to which respondents believe poverty is due to individual deficits of character, specifically lack of effort and loose morals. Standardized item alpha for these two items was .57.

The final factor assessed *support for government redistribution* to reduce inequality. The four items in this factor concern the government's role in reducing inequality (e.g., "The government should guarantee everyone a minimum standard of living.") Standardized item alpha for these four items was .69. This variable serves as the outcome variable in these analyses.

It should be noted that hypothesized distributive justice norms (i.e., equity and equality of outcome) are not represented in the measurement model. Although descriptive statistics for single items indicated that equity was commonly endorsed by most participants and equality of outcome was commonly rejected, because they are not present in the measurement model distributive justice norms will not be further addressed in these analyses.

The final model includes a structural portion in which unanalyzed associations between predictors and the outcome have been replaced by directional effects, which is the equivalent of a multiple regression of the redistribution outcome on the five latent

constructs, allowing the examination of the relative effects of each predictor on the outcome. The final model also includes demographic covariates expected to be related to both predictors and outcomes. The sample size is reduced from 1327 to 1258 with the exclusion of 69 participants who selected a racial identity other than Black or White. Model fit ( $n = 1258$ ) with the inclusion of demographic covariates was adequate ( $\chi^2/df = 2.94$ ;  $TLI = .90$ ;  $CFI = .93$ ;  $RMSEA = .04$ ,  $PCLOSE = 1.0$ ). All predictors, including covariates, have unanalyzed associations between them and each has a direct effect on the outcome redistribution scale. Unanalyzed associations between demographic covariates and predictor variables are not shown for clarity. Prior to discussing the hypothesized effects of predictors on the outcome, the measurement characteristics of the model will be considered first.

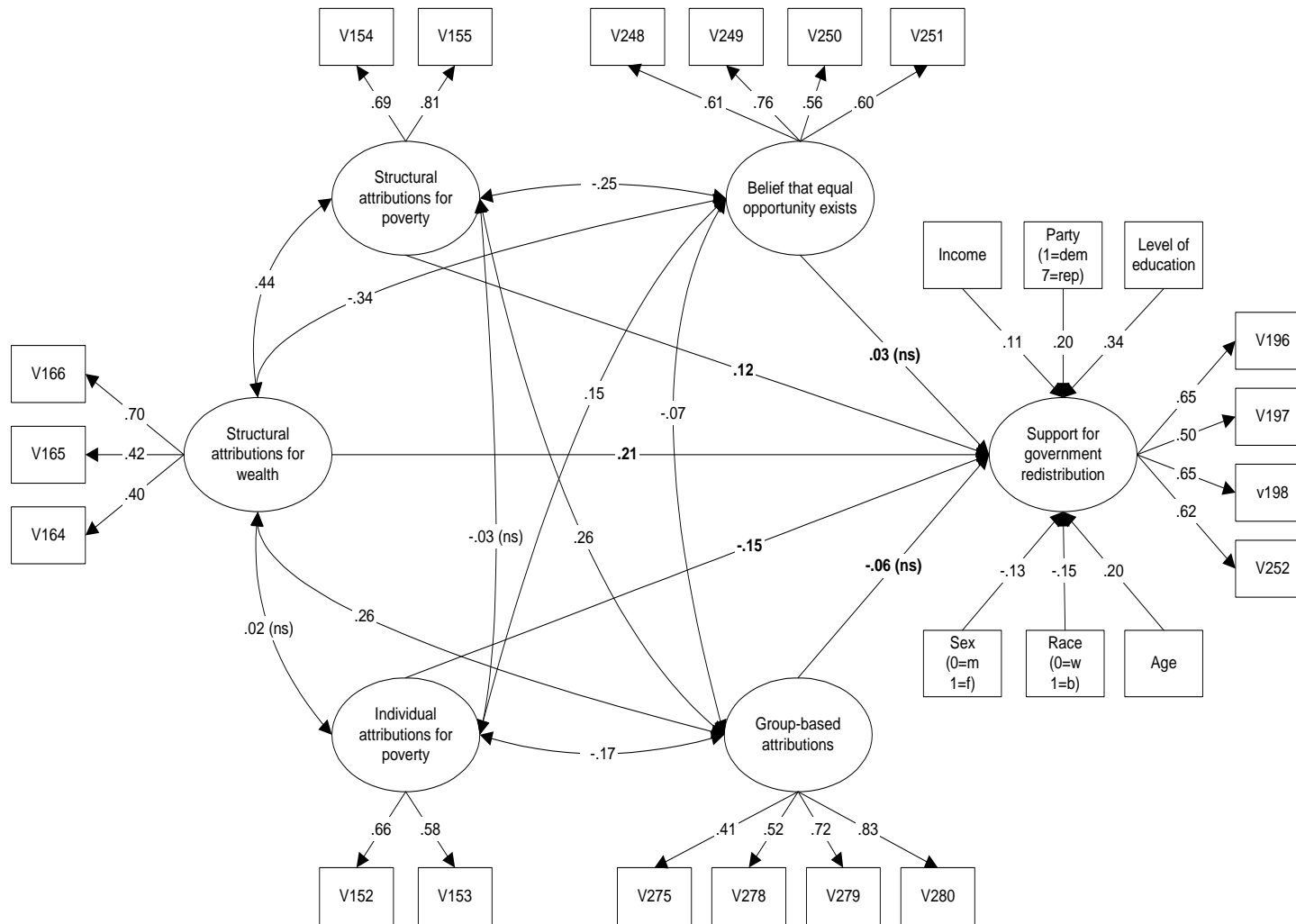


Figure 2. Final Model with Standardized Parameters

As evidence for validity of the measurement model, convergent validity will be considered first. Following a process described by Fornell and Larcker (1981), proportions of variance explained in the indicators of each latent variable were calculated from the standardized item loadings (Appendix G). Proportions of variance explained ranged from a low of 27% for the structural attributions for wealth construct, to a high of 57% for the structural attributions for poverty construct. Representing the extent to which variance is shared between the indicators of a latent variable, these values indicate convergent validity at the item level. Although some of these extracted variance values are below the 50% rule-of-thumb suggested by Fornell and Larcker, the standardized factor loadings were moderate to strong for all latent variables (Figure 2).

Discriminant validity of the latent constructs was examined via the correlations between latent variables from the model (Figure 2) which were generally weak to moderate. The moderate correlation between structural attributions for poverty and wealth is similar to that found between similar scales by Kluegel and Smith (1986;  $r = .42$ ). The structural attribution constructs were also moderately correlated with group-based attributions and equal opportunity in expected directions. Individual attributions for poverty representing the view that poverty is due to individual deficits in character was virtually unassociated with structural attributions for poverty and wealth, similar to previous findings (Feagin, 1975; Kluegel & Smith, 1986).

Unit-weighted factor scores were computed for each latent construct and correlated with each of the demographic covariates. Means and standard deviations for

each scale are shown in Appendix H, and the bivariate correlations with demographic variables are shown in Table 4. Associations of scales with demographic indicators of privilege mirrored previous findings showing that members of privileged groups (White males of middle to high SES) tend to hold attitudes justifying the status quo (Cozarelli, Wilkinson, & Tagler, 2001; Mitchell et al., 1993 & 2001; Sidanius, 1990). As shown in Table 4, men and Whites were less likely to make structural attributions for poverty and more likely to believe that equal opportunity exists, and were less supportive of government action to reduce inequality. Similarly, as income increased respondents were slightly less likely to make structural attributions for wealth, more likely to believe that equal opportunity exists, and much more likely to oppose government action to reduce inequality. These findings provide further support for the validity of the measurement model.

#### *Tests of Structural Hypotheses*

The next step of the analysis was to test hypotheses pertaining to the structural portion of the model. Relative effects of each of the predictor constructs on support for government action to reduce inequality were examined. The relative effects of the five predictor constructs are represented by the straight arrows pointing to government action to reduce inequality in Figure 2. Two systems analysis constructs, structural attributions for wealth and poverty, had significant positive effects on support for government action to reduce inequality. The other systems analysis constructs, group-based attributions and



equal opportunity, were not significantly related to support for redistribution. Individual attributions for poverty were negatively related to support for redistribution.

Table 4. *Correlations of Scales with Demographic Variables*

	Sex (0 = M)	Race (0 = W)	Age	Level of education	Income (z)	Party (1=Dem)
1. Equal opportunity (1=Strongly agree / 5 = Strongly Disagree)	.17*	.09*	-.07*	-.00	-.06*	-.20*
2. Structural attributions wealth (1 = Very often / 5 = Never)	-.05	-.02*	-.03	-.02	.06*	.17*
3. Structural attributions poverty (1 = Very often / 5 = Never)	-.06*	-.21*	-.07*	-.03	.02	.23*
4. Group-based attributions (1 = Very important / 4 = Not at all important)	-.03	-.07*	-.06*	-.05	-.02	.04
5. Individual attributions poverty (1 = Very often / 5 = Never)	.01	-.01	-.11*	.21*	.04	-.08*
6. Government redistribution (1=Strongly agree / 5 = Strongly Disagree)	-.17*	-.23*	-.10*	.27*	.21*	.31*

\* $p < .05$

Next, each of the four systems analysis constructs – structural attributions for poverty and wealth, group-based attributions, and the belief that equal opportunity exists – were tested as moderators of the effect of individual attributions on support for government action to reduce inequality. Note that effects of both equity and individual attributions on the outcome were expected to be moderated by systems analysis. However, because equity was not included in the model, only moderation of individual attributions was tested. Multi-group modeling was used to test moderation. For each systems analysis construct, the sample was median split by the moderator variable to define groups low and high in systems analysis (Appendix I). Moderation was tested by comparing the fit of the fully unconstrained multi-group model to a model with the effects of the remaining four predictors on the outcome constrained to equality across groups. Results indicated that only moderation by structural attributions for poverty was statistically significant (Table 5). Differences in parameter estimates for effects of the five predictors on the outcome in the two structural attribution groups provide further support for the moderation hypothesis (Table 6).

Table 5. *Multi-group Modeling for Low and High Systems Analysis Groups*

Model	param	$\chi^2$	df	$\chi^2/df$	TLI	CFI	$\Delta\chi^2$	$\Delta df$
Unconstrained	239	711.605	359	1.982	.892	.923	--	--
Equality constraints	235	721.515	363	1.988	.891	.922	9.910*	4

\*p &lt; .05

Table 6. *Unstandardized Effects of Predictors in Low and High Systems Analysis Groups*

	Low	High
Individual attributions poverty	-.29**	-.09
Structural attributions wealth	.21*	.10
Group-based attributions	-.09	.04
Equal opportunity	.06	-.04

\*p &lt; .05, \*\*p &lt; .01

Although individual attributions were negatively related to support for government action to reduce inequality in the whole sample, the interaction of systems analysis clarifies this relationship. Individual attributions for poverty were only related to support for redistribution among respondents with low systems analysis (i.e., poverty is determined by structural factors sometimes, rarely, or never). Individual attributions for poverty were unrelated to support for government action to reduce inequality when systems analysis was high. With the removal of 359 cases that selected the midpoint of the scale ('sometimes') for both indicators of structural attributions for poverty, the systems analysis moderation was even more pronounced. Individual attributions were strongly negatively associated with support for government action to reduce inequality ( $b=-.52$ ,  $p=.03$ ) when systems analysis was low, but was unassociated with the outcome when systems analysis was high ( $b=-.11$ ,  $ns$ ). This finding is particularly convincing given that systems analysis was unrelated to individual attributions for poverty. Mean levels of individual attributions for poverty were virtually equivalent across the low and high systems analysis groups [ $t(1256) = -.32$ ,  $ns$ ]. Though not hypothesized, the effect of structural attributions for wealth was also moderated, such that structural attributions for wealth were related to support for redistribution only among respondents with low systems analysis.

## Chapter Five: Discussion

The primary purpose of this study was to illustrate that differences between supporters and opponents of efforts to reduce economic inequality are not irreducible moral differences in beliefs about personal responsibility and equitable distributions of resources, but differences in beliefs about how resources are actually distributed in society.

Descriptive statistics for the items on distributive justice norms supported the hypothesis that equity is endorsed by nearly all participants, and that equality of outcome is generally unpopular. Regarding equity, almost all respondents agreed that “People who work hard deserve to earn more than those who do not,” and that, “People are entitled to keep what they have earned – even if this means some people will be wealthier than others.” There was also support for the hypothesis that very few people support outright equality of outcome. More than 72% of respondents disagreed that the fairest way of distributing resources would be to give everyone equal shares. This item loaded with the government redistribution outcome variable, reflecting a strong association between endorsement of equality of outcome and support for redistribution. The low endorsement of equality of outcome supports William Ryan’s (1981) contention that equality of outcome is a straw man erected to engender knee-jerk rejections of calls for reduced inequality. Unfortunately, the inability to develop scales for either distributive justice norm precluded tests of the hypothesized moderation of the relationship between equity and support for redistribution by systems analysis.

The distributive justice norms reflect participants' view of how resources *should* be distributed. There was much less consensus about how resources *are* distributed. Development of the measurement model produced one individual attribution factor and four factors assessing different aspects of systems analysis. The first hypothesis for the measurement model was supported: individual and structural attributions formed separate weakly-correlated constructs. This indicates that individual and structural attributions are independent dimensions of variation between people. The near-zero correlation between the two, indicates that many people hold individuals responsible for their own success while acknowledging that structural factors influence economic outcomes.

The second hypothesis for the measurement model was not supported. I predicted that structural attributions for poverty and wealth would form a single construct representing systems analysis. A factor model forcing the structural attribution items into a single factor fit significantly less well than one with separate structural attribution factors. The final measurement model also included two other constructs – group-based attributions and belief that equal opportunity exists – that were conceptualized as additional aspects of systems analysis. Attribution of social standing to race and gender, and acknowledgement that opportunity is not distributed equally, both reflect the assessment that resources are not distributed solely based on merit. Although the best-fitting model distinguished between these different aspects of systems analysis, the positive correlations between them provide initial support for the concept.

When the five predictor constructs were tested for their relative effects on the outcome, the hypothesis that systems analysis is a stronger predictor than individual attributions was supported. Results indicated that structural attributions for poverty had the strongest effect on support for redistribution, and that structural attributions for wealth were also positively related to the outcome. Group-based attributions and the belief that equal opportunity exists were not significantly related to support for government redistribution.

Individual attributions were negatively related to support for government action to reduce inequality. As hypothesized, this effect was moderated by systems analysis. Individual attributions were only negatively related to support for redistribution among respondents with low systems analysis. Respondents with high systems analysis made individual attributions as often, but in this group, increased individual attributions were not associated with decreased support for redistribution. Participants with high systems analysis acknowledge that economic outcomes are not determined solely by individual merit, thus they believe that resources are not distributed fairly. Because the distribution of resources is not judged to be fair, redistribution of resources is justified, despite the value of personal responsibility. On the other hand, if systems analysis is low, the distribution of resources is perceived to be fair. Therefore, in defense of the status quo, redistribution is rejected in the name of personal responsibility.

Together, tests of structural hypotheses indicate that systems analysis is the key determinant of attitudes toward redistribution. Almost everyone in the sample believed in



proportional distributions of rewards, and rejected equality of outcome. Respondents also commonly endorsed personal responsibility, as measured by individual attributions for poverty. The structural attribution factors, representing systems analysis, were the strongest predictors of the outcome. Ultimately, individual attributions for poverty were endorsed similarly across groups low and high in systems analysis, but were only associated with opposition to redistribution among participants with low systems analysis. Systems analysis, the perception of the extent to which structural factors determine economic outcomes, was the central determinant of justification or rejection of the unequal status quo.

#### *Implications for Theory and Measurement*

This study rested on a key conceptual distinction between beliefs about how resources *should be* distributed and beliefs about how resources *are* distributed. Distributive justice norms were conceptualized as moral judgments about how resources should be distributed. Causal attributions were conceptualized as components of analysis of how resources are distributed. The distinction between moral assertions and observations is an important one for conceptual and empirical clarity of future research on attitudes toward the distribution of resources, though it has been obscured in previous studies. Nosworthy, Lea, and Lindsay (1995) note that belief in a just world is often described as a measure of proportionality (i.e., equity) as a distributive justice norm, though scales measuring the construct emphasize beliefs about the extent to which proportionality actually exists in reality. Recognizing this, Davey et al. (1999) developed

the Belief in Merit Scale which taps the belief that equity is a desirable ideal for distributions of resources. The present study attempted to measure both dimensions of equity separately, by measuring equity as a distributive justice norm and systems analysis as an indicator of respondents' assessment of the extent to which rewards are distributed equitably in society. This distinction enabled illustration of common endorsement of equity as an ideal, but large variability in respondents' assessment of the actual equitability of current resource distributions. Although it was not attempted in the present study, a similar distinction could be made for individual attributions, which are likely to reflect both the view that characteristics of individuals should determine outcomes and the view that characteristics of individuals actually do determine outcomes.

The present study also has implications for the relationship between equity and equality of outcome. First, it appears that any measure of the equity distributive justice norm will need to be more precise than what was attempted here. That value appears to be so predominant that its measurement needs to allow for finer degrees of variation than a five-point scale can provide. The same can be said for equality of outcome. Alternative measurement methods may provide greater sensitivity and also abolish the false dichotomy between ideal notions of equity and equality. As discussed in the literature review, the concept of proportionality is straightforward when considering inputs and rewards of an agreed upon value, but determining the value of inputs and rewards is most often entirely subjective. As Verba and colleagues noted, "That some income difference is justified by both efficiency and desert does not imply the degree of

that difference” (1987, p. 118). Even when equity is a preferred norm of distributive justice one still has to decide how much more valuable the inputs of a teacher and a doctor should be, for example. A truly valid measure of equity would account separately for valuations of both inputs and rewards. Quantitative measures assessing the ideal ratio between high and low wages are desirable because they allow continuous numerical variation and a wide range of possible scores. This measure would need to account for wages (rewards) and separately assess valuation of the work (input). Equity would be indicated by perfect proportionality between inputs and rewards (e.g., a job valued 5 times more than another job should receive 5 times the compensation.) Equality of outcome on the other hand, would be indicated by the degree of equality that is desired, which could apply to both valuation of inputs and outputs, independent of equity. That is the difference between high and low inputs and outputs could be large or small, regardless of the amount of proportionality between inputs and outputs. Such an approach would shift the focus away from a false dichotomy between simplistic notions of absolute equality of outcome or equity, focusing instead on the *degree* of inequality (or equality) of outcome and the degree of proportionality between inputs and rewards, that is endorsed by respondents.

The literature review for this study also illustrated that causal attributions for poverty and wealth are likely to be dependent on racial group biases, so research methods accounting for the race of the target and the respondent would be desirable. Future studies using survey measures of attitudes toward inequality in homogeneous samples

should address the race (and gender, class, etc.) of the participant and the target when assessing distributive justice norms and causal attributions. This approach would allow for participant/target demographic combinations to be used as a predictor variable or covariate. An alternative approach to account for group bias would be to incorporate a measure of racism or other group bias in a demographically homogeneous sample.

The results of the present study also have implications for future research examining predictors of commitment to distributive justice norms. Previous research treating commitment to distributive justice norms as an individual difference variable, such as Rokeach's work on egalitarian values (1973) and Sidanius and Pratto's (1999) work on social dominance orientation, suggests that commitment to equality is a personality trait. The present study has attempted to shift the focus away from irreducible differences in the moral commitments made by different types of people, to a seemingly more changeable concept of the type of knowledge that is applied to understanding how resources are distributed. Taking the lead of previous studies by Mitchell et al. (2001) and Bobocel et al. (1998) that showed that endorsement of distributive justice norms is dependent upon perceived fairness in the distribution of resources, the present study has illustrated that respondents' analysis of how fairly resources are distributed determines support for efforts to reduce inequality. The present study suggests that preference for equity is a given in the US, and that perceptions of how fairly resources have been distributed are the most important predictor of support for redistribution. Analysis of how resources are distributed in society is also more favorable

from a practical perspective because it may be more malleable than moral commitment to distributive justice norms.

Respondent's analysis of how fairly resources have been distributed proved to be the most powerful predictor of support for government redistribution. The systems analysis concept which lies at the center of the conceptual foundation for this study is defined by a broadening of causal understanding of events, both temporally and spatially, beyond the typical tendency towards individual causal attributions. The present study produced four scales measuring different aspects of systems analysis and the associated belief that resources have been distributed fairly. These four factors were conceptually coherent as different aspects of the systems analysis concept, but they performed quite differently as predictors of support for efforts to reduce inequality suggesting that further development of the systems analysis measure is needed. The factor structure of systems analysis in the present study should be considered an initial empirical exploration into the components of systems analysis, but the results indicate that the concept is worthy of further investigation. One way in which measurement of the systems analysis concept could be improved is by including items that assess causal attributions for phenomena other than poverty and wealth. Every phenomenon has determinants that are not temporally located in the present or spatially located within the physical space of the phenomenon itself. If systems analysis truly represents an underlying tendency towards structural attributions, then people with high systems analysis should make more structural attributions regardless of the phenomenon of interest. Items could also be

included that separate the temporal and spatial dimensions of structural attributions. For example, the present study measured “discrimination” as a generic structural factor determining poverty and wealth, but discrimination could be detailed in terms of the type of discrimination (racial, gender, etc.), the context for the discrimination (e.g., work, school, public), and the historical dimension of discrimination as well. Such measurement improvements in future studies would contribute to the conceptual and empirical development of the systems analysis concept.

#### *Implications for Practice*

The practical significance of these findings is in challenging popular justifications for current economic inequality. If people are to support structural solutions for economic inequality, it is critical that they learn ways to recognize the role that structural factors play in determining economic outcomes. There is evidence that there is a great deal of progress to be made in this area. The American preference for individualistic explanations for behavior is well-documented (Alesina & Glaeser, 2004; Feagin, 1975). Within US society, as shown in the present study and elsewhere (Bobo, 1991; Cozarelli, Wilkinson, & Tagler, 2001; Feagin, 1975; Kluegel & Smith, 1986; Lee, Jones, & Lewis, 1990), persons with a vested interest in maintaining the status quo such as White males are particularly unlikely to acknowledge that structural factors like discrimination and privilege determine who becomes wealthy and who becomes poor. Ironically, it appears that the more structurally disadvantaged a person is, the less likely their situation is to be adequately understood in structural terms. Cited earlier, Iyengar (1990) found that

people were most likely to blame Black women for being poor, despite the fact that Black women were the most structural disadvantaged targets in the study. Similarly, findings from experimental studies of distributive justice found that distributions by group members were less equal the more inequality there was in group member status (Komorita & Parks, 1994). That is, group members were less likely to share with more needy group members.

One explanation for such phenomena is that people who are not successful are perceived as inherently unsuccessful—individualistic attributions are made about their situation, so they are judged unworthy of resource distributions. In other words, poor people are judged to be unworthy of money because they are poor. This is a particularly insidious circular reasoning that may be one mechanism by which the rich get richer and the poor get poorer. It is also precisely the opposite of what a compassionate reaction might be. The results of this study indicate that heightening individuals' sensitivity to the determining role that structural factors have in deciding who succeeds and who fails can attenuate this process of "blaming the victim." The question becomes, how best to enhance individuals' systems analytic skills.

The systems analysis concept at the center of the present study is derived from the literature on critical consciousness raising (Freire, 1970; Serrano-Garcia, 1994) and sociopolitical development (Watts, Williams, & Jagers, 2003). These theories describe the process of liberation of oppressed persons. A major component of this process is the development of an understanding of the historical and contextual determinants of

behavior, what I have called systems analysis. Current methods for critical consciousness-raising tend to derive from Freire's model of critical pedagogy. This model emphasizes a horizontal co-learner relationship between teacher and student and stresses the dialectical relationship between thought and action, which is praxis (1970). Although models such as this can provide a foundation for development of education interventions for systems analysis, their focus on education for oppressed persons leaves out the unique dynamics of developing systems analysis in privileged persons. Justifications for inequality such as equity and individual attributions are most likely to be used by members of privileged groups. Members of privileged groups are likely to be ignorant of their privilege and of the way in which seemingly benevolent values like proportionality and personal responsibility serve to justify a system of domination and subordination (Goodman, 2001). Recent work has begun to address the unique challenges of critical consciousness-raising for members of privileged groups. For example, research on White racial identity development (Helms, 1984; 1995) and acknowledgement of privilege (Ancis & Szymanski, 2001; Lazos Vargas, 1998; McIntosh, 1988; 1989) can help educators approach the obliviousness and resistance that are likely to precede engagement in consciousness-raising by members of privileged groups.

Beyond pedagogy, there are other interventions that can contribute to the development of systems analysis. Harper (1999) reviews studies demonstrating the influential role that media images of poverty have in determining popular views of causes



and solutions. For example, the study by Iyengar (1990) cited earlier demonstrated that causal attributions were subject to change by experimental manipulation of the portrayal of poverty in media images presented to participants. Respondents who saw poverty portrayed as a structural problem were more likely to make structural attributions than were respondents who saw media portrayals of individual victims of poverty. Harper's chapter also deals with practical strategies for influencing media outlets, for example pressure from organized public interest groups that can off-set the vested interests of corporate sponsors.

Whatever the method, pathways for shaping public understanding of the causes of economic inequality need to attend to the cognitively complex reality that resource distributions are determined by *both* individual and structural factors. Prominent American values like proportionality and personal responsibility must be affirmed at the same time that structural determinants of behavior are understood.

Returning to an issue raised earlier in the introduction, community psychology's fundamental commitment to "social justice" needs to be qualified by an in-depth examination of the relationship between equity and equality of outcome. Prilleltensky (2001) defined social justice as, "fair and equitable allocation of bargaining powers, resources, and obligations in society *in consideration* of individuals' differential power, needs, and abilities to express their wishes" (p. 754). Bell (1997) defined social justice as, "full and equal participation of all groups in a society that is mutually shaped to meet their needs. Social justice includes a vision of society in which the distribution of

resources is equitable and all members are physically and psychologically safe and secure” (p. 3). Both of these definitions emphasize equitable distributions of resources. However, left unregulated, an equitable society with persons of varying ability, talent, initiative, etc. will inevitably produce unequal economic outcomes. Given that opportunity is tied to material resources, that the children of wealthy people tend to have more opportunities than children of poor people, the inequality that results from an equitable distribution system becomes inherently unjust. Reflecting the understanding that equity inevitably leads to inequity, community psychology’s emphasis on social justice should be targeted specifically at eliminating the link between opportunity and wealth, via support for equal funding for public schools, for example. Or else, community psychology can attempt to reduce economic inequality. In either case, increased equality of resources, not to be confused with a desire for outright equality of outcome, can figure as or more prominently than equity in definitions of social justice, and the relationship between equity and inequality needs to be explicated. Finally, community psychology’s call for greater equality should include endorsements of self-determination and proportionality, because these values are as important to advocates for reduced inequality as they are to defenders of the status quo. The difference is that supporters of reduced inequality give greater weight to the determining role that structural factors play in the distribution of resources.

*Limitations*

One of the most obvious limitations of this study is that the data were gathered in 1991 which may adversely affect the external validity of the results. However previous work (Kluegel & Smith, 1986) comparing attitudes to inequality in the 1980s and 70s indicates that distributive justice norms and causal attributions are fairly stable in the population over time. On the other hand, attitudes about race and gender and the role that discrimination plays in determining outcomes may be more likely to change. Weighing against this potential shortcoming are the dataset's strengths of size and representativeness.

Another potential limitation of the study is that the development of the measurement model was largely data-driven. The method of independent confirmation of factor structure from one half to the other half of the sample provided evidence for the construct validity of the measurement model, but testing on another sample altogether would have been a stronger design. Also, as with any factor analysis, the factor structure is dependent on the pool of items selected for analysis. Although this is not an absolutely complete set of items – for example, it may have benefited from the inclusion of different measures of distributive justice norms – the measurement model in this study is based on a more inclusive set of items than any previous study on the structure of attitudes toward inequality. Additionally, although development of the measurement model rested on many empirical decisions, these decisions were qualified by theoretical bases at every turn.

One final limitation of the present study is the operationalization of the outcome variable. The concept of interest as an outcome is support for action to reduce inequality. The present operationalization assesses support for general government action to reduce inequality, but the means by which inequality is to be reduced are not very specific. It is possible that opposition to government action to reduce inequality as measured here is as much a reflection of opposition to the government in general, or to a specific policy, as it is a reflection of resistance to reducing inequality. A behavioral measure of support or even of direct action on the part of respondents to reduce inequality would be better than the current measure. Regarding expressed support, a mock ballot initiative would add to the realism of the measure, possibly providing a more valid assessment. Regarding action, personal actions to reduce inequality might include charitable giving, volunteer work, advocacy for public policy such as progressive tax estate tax, and membership in organizations that directly benefit the poor, etc. Future studies on this topic can benefit from more direct measures of action to reduce inequality.

Overall, the present study has accomplished its primary purpose of illustrating that supporters and opponents of government action to reduce inequality share a common appreciation for values of personal responsibility and equity, but that they differ in the extent to which they acknowledge that systemic factors determine economic outcomes. It is hoped that supporters and opponents of efforts to reduce inequality can understand their similar endorsement of values like equity and personal responsibility, and focus

their discourse on differences in the degree to which the system plays an inequitable role in the distribution of resources.

## References

- A question of justice? (2004, May 13). *The Economist*, 370(8366), p. 13.
- Alesina, A. & Glaeser, E. L. (2004). *Fighting poverty in the US and Europe: A world of difference*. New York: Oxford University Press.
- Allen, V. (1970). *Psychological factors in poverty*. Chicago: Markham.
- Allport, G. W. (1954). *The nature of prejudice*. Oxford, England: Addison-Wesley.
- American Political Science Association, Taskforce on Inequality and American Democracy .(2004). *American democracy in an age of rising inequality*. Retrieved January 9, 2005 from <http://www.apsanet.org/Inequality/taskforcereport.pdf>.
- Ancis, J. R. & Szymanski, D. M. (2001). Awareness of White privilege among White counseling trainees. *The Counseling Psychologist*, 29, 548-569.
- Ander-Egg, E. (1980). *Metodologia, y practica del desarrollo de comunidad*. Madrid: Ed. Universitaria Europea.
- Bell, L. A. (1997). Theoretical foundations for social justice education. In M. Adams, L.A. Bell, & P. Griffin (Eds.), *Teaching for diversity and social justice: A sourcebook* (pp. 3-15). New York: Routledge.
- Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life*. Berkley, CA: University of California Press.
- Bobo, L. (1991). Social responsibility, individualism, and redistributive policies. *Sociological Forum*, 6(1), 71-92.

Bobocel, D. R., Son Hing, L. S., Davey, L. M., Stanley, D. J., & Zanna, M. P. (1998).

Justice-based opposition to social policies: Is it genuine? *Journal of Personality and Social Psychology*, 75(3), 653-669.

Bond, J.R. & Vinacke, E. (1961). Coalitions in mixed-sex triads. *Sociometry*, 24, 61-75.

Braithwaite, V. (1994). Beyond Rokeach's Equality-Freedom Model: Two-dimensional values in a one-dimensional world. *Journal of Social Issues*, 50(4), 67-94.

Braithwaite, V. A. & Law, H. G. (1985). Structure of human values: Testing the adequacy

of the Rokeach Value Survey. *Journal of Personality and Social Psychology*, 49(1), 250-263.

Bureau of Labor Statistics (2004). *Union Members Summary*. Retrieved January 10, 2005 from <http://www.bls.gov/news.release/union2.nr0.htm>.

Capra, F. (2002). *The Hidden Connections*. New York: Doubleday.

Center for Budget and Policy Priorities & Economic Policy Institute. (2002). *Pulling apart: A state-by-state analysis of income trends*. Retrieved January 10, 2005 from <http://www.cbpp.org/4-23-02sfp-pr.htm>.

Center for Budget and Policy Priorities (2003). *The new, definitive CBO data on income and tax trends*. Retrieved January 10, 2005 from <http://www.cbpp.org/9-23-03tax-pr.htm>.

Cheung, G. W. & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9(2), 233-255.

- Costello, R.B. (Ed.). (1996). *Random House Webster's college dictionary*. New York: Random House.
- Cox, W. M. & Alm, R. (2000). *Myths of rich and poor: Why we're better off than we think*. New York: Basic Books.
- Cozarelli, C., Wilkinson, A. V., & Tagler, M. J. (2001). Attitudes toward the poor and attributions for poverty. *Journal of Social Issues, 57*(2), 207-227.
- d'Anjou, L., Steijn, A., & Van Aarsen, D. (1995). Social position, ideology, and distributive justice. *Social Justice Research, 8*(4), 351-384.
- Davey, L. M., Bobocel, D. R., Son Hing, L. S., & Zanna, M. P. (1999). Preference for the Merit Principle Scale: An individual difference measure of distributive justice preferences. *Social Justice Research, 12*(3), 223-240.
- Dawes, R.M., Van de Kragt, A.J., & Orbell, J.M. (1988). Not me or thee but we: The importance of group identity in eliciting cooperation in dilemma situations: Experimental manipulations. *Acta Psychologica, 68*, 83-97.
- Della Fave, R. (1986). Toward an explication of the legitimation process. *Social Forces, 65*(2), 476-500.
- DeParle, J. (2004). *American dream: Three women, ten kids, and a nation's drive to end welfare*. New York: Viking.
- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues, 31*(3), 137-149.



Economic Policy Institute (2004a). *The state of working America 2004-2005* ILR Press:

Economic Policy Institute. Retrieved September 22, 2004, from

[http://www.epinet.org/content.cfm/books\\_swa2004](http://www.epinet.org/content.cfm/books_swa2004).

Economic Policy Institute (2004b) *Facts and figures: Inequality*. Retrieved January 8,

2005 from [http://www.epinet.org/books/swa2004/news/swafacts\\_inequality.pdf](http://www.epinet.org/books/swa2004/news/swafacts_inequality.pdf).

Economic Policy Institute (2004c) *Facts and figures: Wealth*. Retrieved January 8, 2005

from [http://www.epinet.org/books/swa2004/news/swafacts\\_wealth.pdf](http://www.epinet.org/books/swa2004/news/swafacts_wealth.pdf).

Feagin, J. R. (1975). *Subordinating the poor: Welfare and American beliefs*. Englewood Cliffs, NJ: Prentice-Hall.

Fletcher, G. J. O., Danilovics, P., Fernandez, G., Peterson, D., & Reeder, G. D. (1986).

Attributional complexity: An individual differences measure. *Journal of Personality and Social Psychology*, 51(4), 875-884.

Fondacaro, M. R. & Weinberg, D. (2002). Concepts of social justice in community

psychology: Toward a social ecological epistemology. *American Journal of Community Psychology*, 30(4), 473-492.

Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with

unobservable variables and measurement error. *Journal of Marketing Research*, 28, 39-50.

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Continuum.

- Friedman, M. & Friedman, R. (1980). *Free to choose: A personal statement*. New York: Harcourt Brace Jovanovich.
- Furnham, A. (1999). Poverty and wealth. In S. C. Carr & T. S. Sloan (Eds.), *Poverty and psychology: From global perspective to local practice* (pp. 169-183). New York: Kluwer Academic/Plenum.
- Furnham, A. (2003). Belief in a just world: Research progress over the past decade. *Personality and Individual Differences*, 34(5), 795-817.
- Gilbert, D. T. (1995). Attribution and interpersonal perception. In A. Tesser (Ed.), *Advanced social psychology* (pp. 99-147). Boston: McGraw-Hill.
- Goodman, D. (2001). *Promoting diversity and social justice*. London, UK: Sage.
- Harper, D.J. (1999). Poverty and discourse. In S. C. Carr & T. S. Sloan (Eds.), *Poverty and psychology: From global perspective to local practice* (pp. 185-204). New York: Kluwer Academic/Plenum.
- Heintz, J., Folbre, N., & The Center for Popular Economics. (2000). *The ultimate field guide to the U.S. economy*. New York: The New Press.
- Helms, J. E. (1984). Toward a theoretical explanation of the effects of race on counseling:  
A Black and White model. *The Counseling Psychologist*, 12(4), 153-164.
- Helms, J. E. (1995). An update of Helms's White and People of Color Racial Identity Models. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 181-198). Thousand Oaks, CA: Sage.

- Hewstone, M. & Ward, C. (1985). Ethnocentrism and causal attribution in Southeast Asia. *Journal of Personality and Social Psychology*, 48(3), 614-623.
- Hinderaker, J. H. & Johnson, S. (1996). *Income, Inequality, and Work*. Online column for the American Enterprise Institute, retrieved January 9, 2005 from [http://www.taemag.com/issues/articleid.16313/article\\_detail.asp](http://www.taemag.com/issues/articleid.16313/article_detail.asp).
- Homans, G.C. (1961). *Social behavior: Its elementary forms*. New York: Harcourt, Brace, and World.
- Hunter, J.A., Stringer, M., & Watson, R.P. (1991). Intergroup violence and intergroup attributions. *British Journal of Social Psychology*, 30(3), 261-266.
- Iyengar, S. (1990). Framing responsibility for political issues: The case of poverty. *Political Behavior*, 12, 19-40.
- Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health*, 87, 1491-1498.
- Kelly, J. G., Ryan, A. M., Altman, B. E., & Stelzner, S. P. (2000) Understanding and changing social systems: An ecological view. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 359-377). New York: Kluwer.
- Kluegel, J. R. & Smith, E. R. (1986). *Beliefs about inequality: Americans' views of what is and what ought to be*. New York: Aldine de Gruyter.
- Komorita, S. S. & Parks, C. D. (1994). Interpersonal relations: Mixed-motive interaction. *Annual Review of Psychology*, 46, 183-207.

- Lazos Vargas, S. L. (1998). Deconstructing homo[geneous] Americanus: The White ethnic immigrant narrative and its exclusionary effect. *Tulane Law Review*, 72, 1493-1596.
- Lee, B. A., Jones, S. H., & Lewis, D. W. (1990). Public beliefs about the causes of homelessness. *Social Forces*, 69(1), 253-265.
- Lei, M. & Lomax, R. G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling*, 12(1), 1-27.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York: Plenum Press.
- Leventhal, G. (1976). The distribution of rewards and resources in groups and organizations. In L. Berkowitz & E. Walster (Eds.), *Advances in experimental social psychology*. New York: Academic Press.
- Leventhal, G.S. & Lane, D.W. (1970). Sex, age, and equity behavior. *Journal of Personality and Social Psychology*, 15, 312-216.
- Lewin-Epstein, N., Kaplan, A., & Levanon, A. (2003). Distributive justice and attitudes toward the welfare state. *Social Justice Research*, 16(1), 1-27.
- Martin, E.J. (2003). Critical social analysis, service learning, and urban affairs: A course application in public policy and administration. *New Political Science*, 25(3), 407-427.

McConahay, J.B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91-125). Orlando, FL: Academic Press.

McIntosh, P. (1988). *White privilege and male privilege: A personal account of coming to see correspondences through work in women's studies*. In M. L. Anderson & P. Hill Collins (Eds.), *Race, class, and gender: An anthology* (pp. 95-105). Belmont, CA: Wadsworth.

McIntosh, P. (1989). White privilege: Unpacking the invisible knapsack. *Peace and Freedom*, July/August, p. 10-12.

Mitchell, G., Tetlock, P. E., Mellers, B. A., & Ordonez, L. D. (1993). Judgments of social justice: Compromises between equality and efficiency. *Journal of Personality and Social Psychology*, 65, 629-639.

Mitchell, G., Tetlock, P. E., Newman, D. G. & Lerner, J. S. (2001). Experiments behind the veil: Structural influences on judgments of social justice. *Political Psychology*, 24(3), 519-547.

Mullaly, B. (2002). *Challenging oppression: A critical social work approach*. Ontario: Oxford.

- Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Brown, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47*(1), 59-70.
- Neville, H. A., Worthington, R. L., & Spanierman, L. B. (2001). Race, power, and multicultural counseling psychology. In J. Ponterotto, J. M. Casas, L. A. Suzuki & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 257-288). Thousand Oaks, CA: Sage.
- Nosworthy, G.J., Lea, J.A., & Lindsay, R.C.L. (1995). Opposition to affirmative action: Racial affect and traditional value predictors across four programs. *Journal of Applied Social Psychology, 25*, 314-337.
- Novak, M. (1995, December). *Inequality and Ideology*. Online column for American Enterprise Institute, retrieved January 9, 2005 from <http://www.aei.org/publication6067>.
- Pettigrew, T.F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin, 5*(4), 461-476.
- Pew Hispanic Center. (2004). *The wealth of Hispanic households: 1996 to 2002*. Pew Hispanic Center: Washington, DC. Retrieved January 8, 2005 from <http://www.pewhispanic.org/site/docs/pdf/The%20Wealth%20of%20Hispanic%20Households.pdf>.

- Pike, W. (2003). *What, me, a radical?* Column for the American Enterprise Institute.  
Retrieved January 9, 2005 from  
[http://www.taemag.com/issues/articleID.17706/article\\_detail.asp](http://www.taemag.com/issues/articleID.17706/article_detail.asp).
- Pinterits, E. J. (2004). *The White Privilege Attitudes Scale: Construction and Initial Validation*. Unpublished doctoral dissertation, University of California, Santa Barbara.
- Poor prospects. (2004, October 9). *The Economist*, 372(8396), p. 13.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. M. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741-763.
- Prilleltensky, I. (1997). Values, assumptions, and practices: Assessing the moral implications of psychological discourse and action. *American Psychologist*, 52(5), 517-535.
- Prilleltensky, I. (2001). Value-based praxis in community psychology: Moving toward social justice and social action. *American Journal of Community Psychology*, 29(5), 747-778.
- Prilleltensky, I. & Nelson, G. (1997). Community psychology: Reclaiming social justice. In D. Fox & I. Prilleltensky (Eds.), *Critical psychology: An introduction* (pp. 166-184). Thousand Oaks, CA: Sage.
- Rappaport, J. (1977). *Community psychology: Values, research, and action*. New York: Holt, Rinehart, and Winston.

- Rappaport, J. (1987). Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15*(2), 121-148.
- Rasinski, K. A. (1987). What's fair is fair--Or is it? Value differences underlying public views about social justice. *Journal of Personality and Social Psychology, 53*(1), 201-211.
- Reich, R. (2004, September). The politics of one America: How to build a coalition of the poor and the middle class to make work pay. *The American Prospect*. Retrieved January 10, 2005 from <http://www.robertreich.org/reich/20040902.asp>.
- Riger, S. (1993). What's wrong with empowerment? *American Journal of Community Psychology, 21*(3), 279-292.
- Ritzman, R.L. & Tomaskovic-Devey, D. (1992). Life chances and support for equality and equity as normative and counternormative distribution rules. *Social Forces, 70*, 745-763.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Ross, L. (1977). The intuitive psychologist and his shortcomings. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 173-220).
- Rubin, Z. & Peplau, L. A. (1975). Who believes in a just world? *Journal of Social Issues, 31*(5), 65-89.
- Ryan, W. (1971). *Blaming the victim*. New York: Pantheon.
- Ryan, W. (1981). *Equality*. New York: Pantheon.



- Sampson, E.E. (1975). On justice as equality. *Journal of Social Issues*, 31(3), 45-64.
- Sarason, S.B. (1988). *The psychological sense of community: Prospects for a community psychology* (Rev. ed.). Cambridge, MA: Brookline.
- Schwartz, S. (1994). Are there universal aspects in the structure of human values? *Journal of Social Issues*, 50(4), 19-45.
- Scott, J.T., Matland, R.E., Michelbach, P.A., & Bornstein, B.H. (2001). Just deserts: An experimental study of distributive justice norms. *American Journal of Political Science*, 45(4), 749-767.
- Serrano-Garcia, I. (1994). The ethics of the powerful and the power of ethics. *American Journal of Community Psychology*, 22(1), 1-20.
- Shepelak, N.J. (1987). The role of self-explanations and self-evaluations in legitimating inequality. *Sociological Review*, 52(4), 495-503.
- Sidanius, J. (1990). Basic values and sociopolitical ideology: A comparison of political experts and political novices. *Perceptual & Motor Skills*, 71(2), 447-450.
- Sidanius, J. & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge: Cambridge University Press.
- Swift, A., Marshall, G., Burgoyne, C. & Routh, D. (1995). Distributive justice: Does it matter what people think? In J.R. Kluegel, D.S. Mason, & B. Wegener (Eds.), *Social Justice and political change: Public opinion in capitalist and post-communist states* (pp.15-48). New York: Aldine de Gruyter.

- Taylor, D.M. & Jaggi, V. (1974). Ethnocentrism and causal attribution in a south Indian context. *Journal of Cross-Cultural Psychology*, 5(2), 162-171.
- Thibaut, J.W. & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Earlbaum & Associates.
- Tyler, T. R., Rasinski, K. A., & Spodick, N. (1985). Influence of voice on satisfaction with leaders: Exploring the meaning of process control. *Journal of Personality and Social Psychology*, 48(1), 72-81.
- United for a Fair Economy. (2004). *I didn't do it alone: Society's contribution to individual wealth and success*. Retrieved January 9, 2005 from <http://www.responsiblewealth.org/press/2004/notalonereportfinal.pdf>.
- US Census Bureau. (1990). *We asked... You told us Bulletin*. Retrieved February 8, 2006 from <http://www.census.gov/main/www/cen1990.html>.
- US Census Bureau. (2001). *The Black population: 2000*. Retrieved January 10, 2005 from <http://www.census.gov/prod/2001pubs/c2kbr01-5.pdf>.
- Uslaner, E. M. (2002). *The moral foundations of trust*. New York: Cambridge University Press.
- Verba, S. & Orren, G. R. (1985). *Equality in America: The view from the top*. Cambridge, MA: Harvard University Press.
- Verba, S., Kelman, S., Orren, G. R., Miyake, I., Watanuki, J., Kabashima, I., et al. (1987). *Elites and the idea of equality*. Cambridge, MA: Harvard University Press.

- Walker, L., Lind, E.A. & Thibaut, J.W. (1979). The relation between procedural and distributive justice. *Virginia Law Review*, 65, 1401.
- Walster, E. & Walster, G. (1975). Equity and social justice. *Journal of Social Issues*, 31(3), 21-43.
- Watts, R. J., Williams, N. C., & Jagers, R. J. (2003). Sociopolitical development. *American Journal of Community Psychology*, 31(1/2), 185-194.
- Wollman, N. J. (2004). Poverty gaps in the US between the races, age groups, and genders decreased steadily since 1995 – But still a ways to go. Retrieved January 2006 from <http://www.manchester.edu/links/violenceindex/2001/PovertyGapsInUS.pdf>.
- Zimmerman, M. (2000) Empowerment theory: psychological, organizational, and community levels of analysis. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 359-377). New York: Kluwer.

## Appendixes

### Appendix A. Sampling Procedure

The US survey for the ISJP used random sampling of US citizens aged 18 or older residing in telephone households in the continental US. A two-stage process was used first selecting 1500 Area/Central Office (CO) codes (first six digits of a complete phone number) from the 42,562 Area/CO codes listed in 1990. This random selection of Area/CO codes was done with stratification by geography and population density. Then randomly generated strings of four digits were appended to the end of each of the 1500 Area/CO combinations to create a set of 1500 dialable phone numbers of which 318 proved to be working numbers. The last eight digits of these 318 phone numbers became the first 8 numbers of a secondary pool of numbers. Random number generation was used to add two digits to these secondary numbers, in order to create a second set of 1500 eligible numbers. These secondary numbers were then called, and if a number was a working household number an interview was conducted. This process was repeated until the desired sample size had been obtained.

## Appendix B. Data Screening Procedure

Univariate screening consisted of examining histograms and skewness and kurtosis statistics from SPSS. Three variables (254, 255, & 256) evidenced severely nonnormal distributions (absolute value of skewness/kurtosis statistic  $> 2.3$ ; Lei & Lomax, 2005). Absolute values of skewness and kurtosis are preferred because z-scores (e.g., skewness/s.e.) are dependent on sample size. Based on visual inspection of the distributions, items 254 and 255 were transformed using  $(-1/\sqrt{X})$  and item 256 was transformed using  $(-1/X)$ . These transformations brought skewness and kurtosis statistics to within the moderate severity range for 254 and 255, but 256 remained significantly nonnormal.

Screening for multivariate normality consisted of computing Mahalanobis distances using SPSS linear regression with all 39 items as predictors of an irrelevant outcome variable, case ID number. Mahalanobis distances can be compared to a critical threshold which is distributed as chi-squared where  $df$  is the number of predictors in the multivariate distribution. In Half 1, the exploratory factor analysis sample, 48 cases were identified with extreme Mahalanobis distances, leaving a final sample of 659. In Half 2 39 multivariate outlier cases were deleted leaving a final sample of 668 for the confirmatory factor analysis.

Finally, for each sample half, missing values analysis in SPSS was used to screen cases with abnormal patterns of missingness, and regression-based imputation using all 39 variables was used to replace missing values for cases without extraordinary

missingness (Half 1: imputation for 10% of cases; <1% of datapoints; Half 2: imputation for 11% of cases; <1% of datapoints).

### Appendix C. Items Omitted from the Final Model After Exploratory Factor Analysis.

Items not contributing to the 5-factor solution included three attribution items concerning ability (150, 160, 276) which had relatively low loadings on individual and structural attribution factors in an earlier study (Kluegel & Smith, 1986). Other low-loading items included two items assessing individual attributions for wealth and high social standing respectively (163 & 277), two items apparently dealing with justification for inequality (178 & 180), and two items assessing practical reasons for proportional distributions (179 & 181). Among the low loading items were also a group of items apparently directly related to the equity distributive justice norm (253, 254, 255, 256, 257, 258, 259, 260, & 261). The fact that this latter set of items with apparently related content did not form a stable construct reflects the complexity and multidimensionality of justifications for inequality. The failure to form an equity factor is also due at least in part to the skewed distributions for items 254, 255, and 256, characterized by low variance and means near the end of the scale indicating strong endorsement. Finally, two other attribution items (156 & 162) were omitted due to cross-loadings on more than one factor. All of these items were omitted from the subsequent model.

## Appendix D. Exploratory Factor Analysis Results of Six-Factor Solution Using Principle Axis Extraction and Varimax

Rotation ( $n = 659$ )

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
V249. In the US, people get rewarded for their effort.	.803					
V251. In the US, people get rewarded for their intelligence and skill.	.636					
V248. In the US, people have equal opportunities to get ahead.	.544					
V250. In the US, people get what they need.	.538					
Reasons there are poor people:						
V154. Discrimination		.754				
V155. Lack of opportunity		.727				
Reasons there are wealthy people:						
V165. More opportunities to begin with			.590			
V164. Having the right connections			.587			
V166. The economic system allows them to take unfair advantage			.482			



Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Factors considered important for having a high social standing: (.73)						
V280. Belonging to a particular racial or ethnic group				.691		
V279. One's sex				.594		
V278. Having the right connections				.497		
V275. Social background				.759		
Reasons there are poor people:						
V153. Lack of effort					.654	
V152. Loose morals					.583	
V252. The fairest way of distributing wealth and income would be to give everyone equal shares.						.673
V196. The government should guarantee everyone a minimum standard of living.						.625
V198. The government should provide a job for everyone who wants one.						.593
V197. The government should place an upper limit on the amount of money any one person can make.						.485

#### Appendix E. Modifications to Measurement Model in Confirmatory Factor Analysis

Three correlated residuals were added to account for method variance. Two correlated errors were added because they originated from the same question stem (V164 $\leftrightarrow$ V165; V275 $\leftrightarrow$ 278). One other correlated error was added between items V164 & V278 to account for common item wording (“Having the right connections.”) Effects of these modifications on loadings and meaning of related factors were minimal. The only other change was the constraining of error variances to equality for the individual attributions for poverty factor. The solution was inadmissible without this modification, and this was the most minor modification that could be made to fix the problem. Model fit was unchanged by this modification. These modifications were retained in all subsequent models.

## Appendix F. Multigroup Modeling to Establish Measurement Invariance Across Half 1 and Half 2 of the Sample

Multigroup modeling was conducted to evaluate measurement invariance across the two halves of the sample. An initial test of equality of the covariance structures for the two halves indicated that their respective covariance structures were not equivalent (Box's  $M = 237.95, p = .02$ ). Then, the measurement weights were constrained to equality across the two halves of the sample as a test of measurement invariance. Evaluation of measurement invariance in the multigroup confirmatory factor analysis framework is usually based on chi-squared difference testing. However values of chi-squared are known to be dependent on sample size, as are chi-squared difference values, such that the likelihood of rejecting a model increases with sample size (Cheung & Rensvold, 2002). Therefore, Cheung and Rensvold suggest examination of incremental change in other fit indices such as the commonly reported CFI, because it is unaffected by sample size. They used simulation studies to identify a threshold of .01 CFI units for statistically significant change across nested models. In the present study both statistically significant change in the log-likelihood function and  $\Delta$ CFI of .01 or greater will be used as criteria for evaluation of measurement invariance.

The unconstrained model is essentially the combined fit of separate models fit to each of the sample halves, with all parameters free to vary. This model is a test of the configural invariance of the model – whether the number of factors and division of items onto factors fits equally well for both sample halves. The measurement weights model

forces the loadings of each item on its latent factor to be equal across samples. This model did not result in a significant decrement in fit relative to the unconstrained model, judging by change in both chi-squared and CFI. This is an indication of metric invariance (Cheung & Rensvold, 2002) justifying the assumption that measurement of the latent variables is the same in both halves of the sample.

#### Appendix G. Calculation of Proportion of Variance Explained by Each Latent Variable

From Fornell and Larcker (1981) the proportion of extracted variance for each latent variable is represented by the formula:  $[\sum(sl_i^2)]/[\sum(sl_i^2) + \sum(e_i)]$  where  $sl$  is the standardized loading of each item in the construct and  $e = 1 - sl$ . Standardized item loadings are shown in Figure 2.

## Appendix H. Descriptive Statistics for Unit-Weighted Scales for Each Latent Construct

Scale	Mean	SD
1. Equal opportunity (1=Strongly agree / 5 = Strongly Disagree)	2.61	.83
2. Structural attributions wealth (1 = Very often / 5 = Never)	2.29	.66
3. Structural attributions poverty (1 = Very often / 5 = Never)	2.80	.83
4. Group-based attributions (1 = Very important / 4 = Not at all important)	2.28	.65
5. Individual attributions poverty (1 = Very often / 5 = Never)	2.59	.80
6. Government redistribution (1=Strongly agree / 5 = Strongly Disagree)	3.47	1.00

### Appendix I. Median Splits for Four Moderator Variables

There were four variables tested as moderators. For each of these variables, because there were a large number of cases with the median value of the moderator, the component items for the latent variable were used to create the most even possible split of the sample. The general procedure for all four latent variables was to examine the distribution of the indicator with the strongest loading for the construct. For all of the latent variables with a five-point scale, responses 1-2 for the strongest loading item were coded as high systems analysis, and responses 3-5 were coded as low systems analysis (with the exception of the equal opportunity construct which was reverse-coded). For latent variables with a four-point scale, values 1-2 were coded as high systems analysis and values 3-4 were coded as low systems analysis.

For tests of moderation using multi-group modeling, the fully unconstrained model allows all parameters from the model to be estimated separately for the two structural attribution groups. By contrast, the constrained model includes equality constraints on the direct effects of the five predictor latent variables on the redistribution outcome. A significant decrease in fit from the unconstrained to the constrained model indicates that the effects of the predictors on the outcome need to be free to vary across the two structural attribution groups. Note that a construct from the original measurement model is the grouping variable for this multi-group analysis, so that variable is not present in the model for either group, therefore these models are no longer nested in relation to the previous models.