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Precursors to Prosociality: SES and its Consequences

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Abstract

It is well documented within the literature that socioeconomic status (SES) is incredibly influential in predicting many developmental and general life outcomes. Among the variables SES affects, prosociality has yielded some of the most inconsistent empirical findings. There is an inconsistency within the literature regarding the impact of SES on prosocial behavior, with one camp suggesting there is a positive relationship and another positing that there is a negative relationship. These camps typically examine the issue via different frameworks, offering different proposed mechanisms to explain differences in prosociality across class. This review seeks to acknowledge the merits and shortcomings across these camps to promote a more nuanced understanding of the role SES plays in either inhibiting or encouraging prosocial action.

Introduction

Few topics have captured and maintained the attention of researchers across different disciplines in the way prosocial behavior has. Experts from evolutionary biologists to cultural anthropologists have examined, analyzed, and theorized over the origins of prosociality, how it is cultivated, and the different ways in which it is expressed. Researchers have taken particular interest in variables thought to affect the expression and development of prosocial, one of the most thoroughly investigated of which being (SES).

The current paper aims to explore the effects of poverty as, conceptualized by low SES and low social class, on the development of prosocial behavior and its prerequisites. Prior works conducted on poverty, violence, and other environmental stressor have done a poor job of clearly separating potentially confounding variables, making it difficult for researchers to parse apart what is driving changes in propensity to engage in prosocial behavior. Moreover, given the contradictory findings associated with the relationship between prosocial behavior and social class, a critical examination of the different measures commonly employed across different fields (such as behavioral economics and psychology) is needed in order to reconcile and make sense of inconsistent results. Additionally, interpretations of said study results and proposed explanatory mechanisms should be thoroughly assessed in the face of the shifting findings.

This review seeks to detail potential limitations and further explore the constellation of cognitive and behavioral constructs that act as precursors to prosocial behavior and how SES specifically influences the development and maintenance of such constructs. Through this exploration, I hope to better understand and examine shortcomings and discrepancies within the

literature so they may be addressed in future work examining the nuanced effects of SES on prosociality. By garnering a deeper understanding of the complex effects of SES on prosocial action, researchers may be better able to contribute to policies intended to mitigate the damaging effects of poverty and address the potential social-cognitive shortcomings associated with positions of power.

Prosocial Behavior

The unique ultrasocial nature of humans sets us apart from any other species, leading to a greater interdependence on conspecifics than is common in other animals. Through this unprecedented interdependence, a number of prosocial behaviors have developed which has led to, and continues to support, social cohesion, benefitting reproductive fitness (Tomasello, 2014). Behaviors such as hunting, foraging, shelter building, and child rearing are all dependent upon cooperation, encouraging individuals to concern themselves with the wellbeing of non kin (Tomasello, 2014). Together, this suggests that these distinct prosocial actions and our general proclivity towards other-regarding behaviors are elements of our evolutionary history. This innate inclination, combined with specific environmental factors, represents adaptive elements responsible for social cohesion that has allowed humans to cultivate and thrive in uniquely cooperative social arrangements (Decety & Steinbeis, 2020).

While there are many definitions of prosocial behavior, it is commonly defined as any action intended to benefit another (Decety & Steinbeis, 2020). This definition captures the essence prosociality, however it is perhaps misleading in its simplicity. Interdisciplinary work conducted by evolutionary biologists, psychologists, behavioral economists, social neuroscientists, and anthropologists has led to more nuanced conceptualization of what prosocial behavior truly is, revealing that prosociallity is an umbrella term capturing a constellation of

different types of behavior. Behaviors such as cooperation, sharing, comforting, and informing all fall within the definition of prosocial behavior (Decety & Stenbeis, 2020). Each of these forms of prosocial behavior rely on distinct motivations such fairness, reputation management, group affiliation, reciprocity, caring, and rewards to encourage and reinforce the engagement in prosocial activity (Decety & Steinbeis, 2020). This understanding of prosociality greatly expands upon the helpful, but limited definition derived from philosophers which focuses on the opposition between selflessness and selfishness. Further deepening our understanding, researchers have begun to place a greater emphasis on contextual factors rather than focusing strictly on how disposition affects prosocial behavior, as was popular in the past.

To better understand prosocial behavior, it is necessary to explore its foundations and underlying mechanisms. Knowing the causes and mechanisms of why prosociality evolved is important for encouraging various forms of prosocial behavior such as sharing, cooperating, helping and fostering general moral development. In order to promote a more comprehensive understanding of these mechanisms and explain the emergence of prosociality, it is crucial to consider both proximal and ultimate levels of explanation. Proximal explanations refer to mechanisms and motivations, while ultimate explanations describe the fitness consequences of a trait. Importantly, ultimate and proximate mechanisms are able to be decoupled, as individuals are not typically consciously aware of how behavior influences their evolutionary fitness. For instance, individuals do not share resources with non kin because they know sharing and cooperation increase reproductive success through social desirability and reciprocity; however, an individual may be motivated to help by reputational concern or feelings of compassion or empathy (Van Kleef et al., 2008).

Altogether, natural selection has endowed the human brain with a number of innate predispositions that motivate prosociality, acting as a sort of prosocial skeleton for which future experiences to build upon and inform. It is important to note that these predispositions do not develop in a vacuum. Relevant experience and environmental triggers are necessary for these penchants to develop into a pattern of regular behaviors that are then adopted as norms. Current researchers continue to deepen our understanding through their exploration of this complex topic and their acknowledgments of contextual factors, evolutionary theory, utility, and the wide variety of behaviors prosociality includes.

Socioeconomic Status and Poverty

Through this more comprehensive view of prosociality and its precursors, researchers have discovered several crucial contextual and environmental factors affecting how prosociality is expressed and developed. Among those ecological contingencies, SES, specifically poverty, has been identified as impacting prosocial behavior both directly and through modulation (von Hermanni & Tutic, 2019; Schmuckle, Korndorfer, & Egloff, 2019; Vietes, 2017; Vohs, 2006).

While SES and poverty are not the same, due to the limitations of the official definition and measure of poverty within the United States, many researchers instead opt for other methods such as SES to determine deprivation and economic hardship. Within the literature, low SES, low income, lower-class, and poverty are often used to interchangeably because they predict essentially the same thing and overlap in ways that make them difficult to differentiate between (Diemer et al., 2013; Evans 2004; Wadsworth et al., 2016). These alternative measures act as proxies for the colloquial definition of poverty, meaning they attempt to capture and index low economic and social standing (Diemer et al., 2013; Evans, 2004; Wadsworth et al., 2016). While the absolute definition of poverty captures solely income in relation to family composition, SES

is a better indicator of overall social class, despite its own limitations (e.g., measurement errors, response biases, etc.) (Evans, 2004). For these reason, low SES, low income, low-class, and poverty will be used interchangeable throughout the current review.

The colloquial definition of poverty revolves around an individual's or family's ability to meet life necessities such as food, clothing, shelter, healthcare, and education, within the United States, while poverty is officially measured and defined by a threshold that calculates the expected cost of a household's basic needs and total, pre-tax income (U.S. Census Bureau, 2020). The threshold varies depending on family composition (i.e., the number of independents and dependents related by blood in a household) but not by geographic location (U.S. Census Bureau, 2020). Specifically, the poverty threshold is determined by calculating the total amount an average family spends on food and multiplying by three (U.S. Census Bureau, 2020).

Researchers and the Census Bureau alike caution against using the official poverty measure as a metric of determining if families' needs are being met, instead suggesting the official poverty measure should be interpreted as a "statistical yardstick" rather than a comprehensive measure of deprivation and accurate representation of the amount of income families need to live (Institute for Research on Poverty, 2019; U.S. Census Bureau, 2020). Within the official poverty measure, there are a total of 48 thresholds set that vary by family size and age of each member of the family (U.S. Census Bureau, 2020). To calculate where a family falls within the official poverty measure, the total amount of income earned by a family is then added up and divided by the threshold to find the Ratio of Income to Poverty, so the equation is Income/Threshold = Ratio of Income to Poverty (U.S. Census Bureau, 2020). If the quotient is above one, the family is technically considered "not in poverty." This methodology has not changed since its conception and implementation in the 1960s, with the only modification being

regular adjustments to account for inflation using the Consumer Price Index (Institute for Research on Poverty, 2019). If a family lies even one dollar above the set poverty threshold, they are no longer considered impoverished, creating clear issues at the policy level but also limiting this measures usefulness for capturing true economic hardship.

In light of these problems, researchers typically opt to use SES as a proxy for financial difficulties and class-based power differentials (Evans, 2004). SES is broadly defined as an index of an individual's relative position within a power hierarchy as captured by relatively objective measures such as: control over resources, income, wealth, education level, and occupational prestige (Diemer & Ali, 2009). SES is interpreted in many different ways throughout the literature; depending on the researcher, one construct or a combination of several may be used as a measure of SES (Diemer & Ali, 2009). Control over resources consistently refers to an individual's ability to access necessities such as food, shelter, and healthcare. On the other hand, income can refer to total economic resources (e.g., welfare benefits and earned income) or solely earned income, while wealth takes into account household income as well as familial assets (e.g., property owned, stocks, etc.). Education level, for adults refers the highest level of education attained (e.g., a degree from a four-year university, an associate degree, a high school diploma, etc.), while occupational prestige refers to public perception of an individual's social standing based off job title (Diemer et al., 2013). There are a number of different classification systems used to rank the prestige of a certain career and industry, but all are based off survey responses of individuals asked their perception of different types of work (Diemer et al., 2013). Importantly, measures of occupational prestige have been critiqued for their subjective nature and dated ranking system (Diemer et al., 2013).

The most common measures of SES are education (or primary care giver education for children), occupational prestige, and income. However, there are several limitations associated with using income as a measure of SES, perhaps leading to its limited use within psychological research. For instance, household income tends to be inconsistent and highly variable from year to year, making it difficult to glean a wholistic picture of household SES. This inconsistency detracts from the ability of income measures to act as a reliable predictor. Additionally, response and nonresponse bias are common within the literature, often leading to unusable or inaccurate accounts in that individuals often purposefully report their income inaccurately or opt to not answer the question completely (Driemer et al., 2013).

Due to both its response accuracy and ease of use, researchers commonly choose instead to use education (maternal education in the case of child participants) as their measure of SES. Education has been used as a proxy for SES in hundreds of studies and measures of educational attainment have been shown to have a high degree of accuracy; they have also proven to be a strong predictor of behavioral, cognitive, and health outcomes (Cowell et al., 2017; Winkleby, Jatulis, Frank & Fortmann, 1992).

Similarly, researchers have reported that among adolescents, maternal education has the highest degree of accuracy in reporting out of other commonly used proxies such as income or occupational prestige (Ensminger et al., 2000). Maternal (or primary caregiver education in the case maternal education is not relevant) has been shown to be an accurate predictor of health, educational, behavioral, and socioemotional outcomes and is commonly used within the literature (Ensminger et al., 2000). Additionally, as aforementioned, adults frequently misreport their income, so researchers often instead use direct educational attainment as a proxy for SES (Assari, 2019). However, it should be noted that this measure has limitations for young adults,

typically between the ages of 18-25, who are in transitory periods. In general, it is difficult to characterize SES for this age group due to not being firmly entrenched in the labor market, often living in dormitories or other nonpermanent housing, and often being enrolled in school (Driemer et al., 2013). For young adults, especially those enrolled in college or other professional schools, it is common practice to instead ask for maternal education instead of direct educational attainment (Driemer et al., 2013; Ensminger et al., 2000).

Socioeconomic status also captures elements of subjective social class, the perception of SES status rank compared to others in society (Piff et al., 2010). Like gender, race, and ethnicity social class acts a social identifier that influences the way in which individuals interreact with and perceive the world. Supporting this, Blascovich et al. (2001), revealed that individuals use social class to categorize one another during social interactions. Additionally, Kraus and colleagues (2012) revealed that people spend the majority of their day-to-day lives in environments stratified on the basis of social hierarchies.

In sum, the measurement of both poverty and SES is riddled with complications and inconsistencies. In light of the issues plaguing the operationalization of poverty, many researchers opt to use SES as a proxy to capture relative deprivation. While SES may be measured in a variety of ways including income, wealth, occupational prestige, education, and subjective reports, some methods are more reliable than others. It is important to acknowledge the limitations associated with each system of measurement in order to better understand what is truly being captured, to ensure the validity of findings, and to accurately and meaningfully interpret findings from studies examining the effects of poverty, SES, and class.

Consequences of SES

An individual's spot on the social stratum has overarching effects on cognition, socialization, and emotional experiences in ways that also effect proclivity to engage in prosocial behavior and the precursors required to be motivated to act prosocially. Unsurprisingly, higher SES is almost universally associated with more positive outcomes with few exceptions (Evans, 2004). For instance, individuals of higher SES reportedly have greater access to cognitive resources needed for optimal decision making which leads to improved later life outcomes (Gennetian & Shafir, 2015; Knudsen, Heckman, Cameron, & Shonkoff, 2006). Specifically, research has revealed that financial instability and deprivation, as measured by SES, is linked to increased cognitive load, decreases in overall cognitive functioning, and lowered executive-control which in turn affects academic success and later life outcomes such as wealth attainment and life-satisfaction. (Gennetian and Shafir, 2015; Knudsen, Heckman, Cameron, and Shonkoff, 2006; Mani, Mullainathan, Shafir, and Zhao, 2013). Furthermore, SES has been found to be a strong predictor across a variety of non-cognitive outcomes as well such that higher SES has been linked to improved physical and mental health, higher educational attainment, more hours worked as an adult, and improved socio-emotional and behavioral outcomes (Evans, 2004).

Violence

Furthermore, low -income individuals are disproportionately affected by violence compared to their higher earning counterparts (Evans, 2004; Sampson, Raudenbush, & Earls, 1997). For instance, researchers have found that both adults and children from low-income backgrounds are more likely to be exposed to violence on the whole than their middle- and upper-class peers (Sampson, Raudenbush, & Earls, 1997). Specifically, children from a low-income background encounter violent or aggressive peers 40% more often, experience violence

within childcare settings 25% more often, and are more likely to be exposed to a weapon at school than students from other socioeconomic backgrounds (Evans, 2004; Sinclair, Pettit, Harrist, Dodge, & Bates, 1994).

Low-income youth not only face increased risk of exposure, but they also experience an elevated risk of being the victim of community violence (Voisin, 2007). Moreover, a host of studies have found an inverse relationship between neighborhood income and crime rates (Sampson, Raudenbush, & Earls, 19978; Sinclair et al., 1994). This exposure to potentially traumatic experiences that individuals of the upper echelons are largely exempt from has been reported to lead to undesirable short and long term psychological and behavioral consequences (Fowler et al., 2009; Overstreet and Mazza, 2003). Children living in neighborhoods characterized by more violence are more likely to develop depressions, anxiety, posttraumatic stress disorder, and delinquency, with many of these having implications for expected quality of life as an adult (Overstreet and Mazza, 2003).

However, much like the work conducted the on the effects of SES on prosocial behavior, discussed in detail below, the research documenting how violence affects prosocial behavior is similarly complex and inconsistent. While it may seem intuitive that exposure to violence inhibits the inclination to engage in prosocial behavior, some researchers suggest that it's not so cut and dry. Some studies do in fact find this expected inhibitory effect of exposure to violence on prosocial behavior (Betancourt et al., 2010; Keresteš, 2006; Schultz, Sørensen, & Waaktaar, 2012). In particular, one study examining the effects of wartime violence on child soldiers' moral development found that chronic exposure to violence led to declines in prosocial behavior (Betancourt et al., 2010). Similarly, another study revealed that contact with stressful events (i.e.,

war) led children to engage in less prosocial behavior as measured by teacher ratings (Kerestes, 2006).

These findings are echoed within western contexts as well; Hager et al. (2019) also observed that children living in low-income, victimized neighborhoods were substantially less inclined towards prosocial behavior than their peers who lived in neighborhoods that experienced less violence. Research conducted by McMahon and colleagues (2013) examining the effects of exposure to community violence on Black youth also revealed exposure to violence lead to increased rates of aggression along with decreases in prosocial behavior. Similarly, an abundance of studies has revealed a positive correlation between subjection to community violence and aggressive behavior (Hardaway, McLoyd, & Wood, 2012).

Despite the evidence suggesting violence's inhibitory effects on prosocial behavior, recent studies suggest that there may be nuance in the type of violence exposure that leads to decreases in prosocial behavior. For instance, a suite of studies has revealed that certain types of violence may even encourage prosocial behavior (Bauer & Farmer., 2016). Ghailian et al.'s (2013) study of four regions in Africa with high rates of extreme environmental stressors observed a distinct difference in the effects diverse types of violence had on prosocial behavior. In Togo and Burkina Faso, violence related trauma was associated with increases in prosocial behavior, while participants from Sierra Leone and Liberia, areas experiencing severe group conflict, experienced a decline in prosocial behavior (Ghailian et al., 2013).

In an attempt to reconcile these disparate findings, Bauer and colleagues (2016) conducted a comprehensive meta-analysis over the effects of war on prosocial behavior. Researchers revealed a relatively consistent finding: individuals post war tend to behave more cooperativity (Bauer et al., 2016). However, this review encompasses a variety of different types of violence under one

label, making it difficult to define and identify the driving force leading to this surprising finding. It is unclear the exact mechanisms driving this distinction; however, these findings lend credence to some researchers' urges for a more fine-toothed measure of violence in studies of prosocial behavior.

Interestingly, many studies examining the effects of SES or on developmental outcomes, and specifically propensity towards prosocial behavior, measure income at the neighborhood level via school resources or census data, without controlling for the nearly inseparable confounding variable of violence. However, there is ample research suggesting these variables are extremely interconnected (Sampson, Raudenbush, & Earls, 1997). Despite the similarities in outcomes associated with exposure to both violence and poverty and the interconnected nature of the constructs, past studies have done a poor job of examining interactions between the two and disentangling their effects. Because of this, it is important to draw attention to these shortcomings given the topic of the current paper and potential limitations of the review.

The Effects of SES and Class on Prosocial Behavior

Negative Relationship between SES and Prosociality

The breadth of literature investigating the consequences of social class on general development is sizeable, and there exists an almost equally expansive suite of studies exploring specifically how income effects propensity towards prosocial behavior. While the pool of studies examining the relationship is deep, there is controversy within the literature regarding the direction of the connection. There are two camps within the extant literature: one which posits a positive relationship between SES and prosocial behavior (i.e., higher class individuals are more prosocial) and one that posits a negative relationship between SES and prosocial behavior (i.e., lower-class individuals are more prosocial)(Benenson, Pascoe, & Radmore, 2007; Cote, House,

& Willer, 2015; Evans, 2004; Nettle, Colleony, & Cockerill, 2011; Holland, Silva, & Mace, 2012; Schmukle, Korndörfer, & Egloff, 2019; Silva & Mace, 2019).

The negative effects associated with living in areas of deprivation and occupying a lower class have direct and indirect consequences on prosociality, in part stemming from the harsher environments that low SES individuals typically inhabit (Adler et al., 1994; Lareau, 2011). These environments play a role in cultivating unique emotional experiences and contextual expectations (Krause et al., 2010; Stellar et al., 2012). These environments are characterized by fewer and typically lower quality education opportunities, increased risk of stigmatization and ostracism, heightened exposure to violence (explored in further detail later), and more physical and mental health vulnerabilities which lead to lower life-expectancy (Snibbe and Markus, 2005; Williams, 2007; Gallo and Matherws, 2003; Sampson et al., 1997). Due to the myriad of hurdles lower-class individuals face and fewer access to resources that would buffer against the harmful effects of these environmental stressors, research suggests that lower class individuals become more attuned to social context to mitigate the damaging effects and risks associated with environmental instability (Kraus et al., 2011; Piff et al., 2010).

Consistent with this, research has found that lower class individuals have an increased propensity to experience both cognitive and emotional empathy compared to their high-class peers (Kraus, Cote, & Keltner, 2010). This greater awareness has been connected to a greater attentiveness to the needs and distress of others, which in turn influences feelings of compassion (Kraus, Piff, & Keltner, 2011; Piff et al., 2010). Supporting this, increased motivation to understand the thoughts and feelings of feelings of others can be observed in augmented neural activity in brain regions associated with the mentalizing network and emotional salience (Muscatell et al., 2012).

Research suggests that this effect is malleable and can be brought about artificially as well. Specifically, Kraus and colleagues (2010) experimentally manipulated participants' subjective social status and found that individuals induced to feel that they are lower on the social hierarchy were more accurate in judging the emotions of others. Moreover, individuals in the low status condition displayed physiological symptoms indicative of greater compassion for others (Stellar et al., 2012). In fact, participants receiving the condition that magnified power perceptions actually experienced a decrease in their capacity to empathize and express compassion, further strengthening researchers' causal assertions regarding the relationship between SES and prosociality (Galinsky et al. 2006; Van Kleef, Oveis, & Lowe., 2008). These findings have important implications for prosocial behavior in that the ability to empathize, understand the feelings of others, and perspective take have been identified as cornerstones of prosociality (Bartal, Decery, & Mason, 2011, Cigala, Mori, Fangareggi, 2015; Marsh, Kozak, & Ambady, 2007).

This increased propensity for empathy likely affects communal engagement as well. Research has found that, lower-class individuals typically report greater feelings of connectedness within their communities, leading to a general greater inclination to create and foster relationships compared to their higher earning counterparts (Piff, Stancato, Martinez, Kraus & Keltner, 2012; Piff et al., 2010). These findings offer further evidence in support of the potential negative relationship between SES and prosocial behavior given that feelings of closeness and warmth for others has long been identified as a key motivator in encouraging prosocial behavior (Bartal, Decery, & Mason, 2011, Cigala, Mori, Fangareggi, 2015; Marsh, Kozak, & Ambady, 2007; Stellar, Manzo, Kraus, & Ketlner, 2012; Van Kleef et al., 2008). To explain the occurrence of this finding, researchers posit that due to living in a harsher, less

predictable environment, it is more important for low-income individuals to be more externally focused (Kraus & Keltner, 2009; Piff et al., 2010). On the other hand, higher income individuals are given more room to adopt an individualistic mindset due to environmental stability and greater access to resources (Bowman, Kitayama, & Nisbeslt, 2009; Marshall, 1997).

Consistent with this hypothesis, Kraus et al., (2010) revealed that, indeed, lower-class individuals were more reliant on external cues and social context when taking a social cognition test compared to their higher-class peers. Research exploring these findings suggests that cooperation may be more important in low-income communities (Piff, Stancato, Martinez, Kraus, & Keltner, 2012). Specifically, findings indicates that lower class individuals tend to engage in more communal coping strategies than the upper-class (Piff, stancato, & Horber, 2016). Some studies propose that individuals of low social class may show more signs of affiliation, may be more accurate in judging others' emotions, and may be more cognizant of body language (Marsh, Kozak, & Ambady, 2007; Kraus et al., 2010). In fact, compared to higher class individuals, lower class individuals looked more at other people on the whole than higher-class individuals, and more specifically, spent more time looking at the faces of others (Dietze and Knowles, 2016). This sensitivity to external cues and social context may lead lower class individuals to be more attuned to the suffering and needs of others as found by Stellar and colleagues (Stellar, Manzo, Kraus, & Ketlner, 2012).

These findings have implications for patterns of socialization across social class. Research suggests that the higher on the social ladder an individual is, the more independence and personal control is emphasized. On the other hand, those occupying a lower rung on the ladder are more likely to value interdependence and social adjustment (Na, McDonough, & Chan, 2018; Vietes, 2017). Volker et al. (2017) suggests that resource scarcity encourages

communal interdependence in a way that leads to social cohesion. Consistent with this, lower class individuals typically prioritize community more than their upper-class counterparts when faced with economic uncertainty, family crisis, violence, and political instability (Piff et al., 2012). Similarly, research suggests that those with fewer material resources often lean on others to achieve their goals and engage in deeper social interaction (Centers, 1949; Kraus & Keltner, 2009; Scherer, 1974).

Furthering this social-cognitive explanation, Piff and colleagues (2010) similarly argue that the increased proclivity towards other-regarding behavior in lower social class individuals is a product of evolution, in that it is adaptive for individuals to be attuned to the feelings of others. Perceptions of environmental instability encourage lower-class individuals to be both more present and other-oriented (Kraus & Keltner, 2009; Piff et al., 2010). While these differences, specifically the tendency to be more present oriented, may be adaptive in the short term due to environmental circumstances, ignoring long-term outcomes in favor of focusing on short-term preservation may lead to negative future consequences for both the individual and society as a whole (Pepper & Nettle, 2017).

Indeed, the discrepancy in temporal discounting capabilities across class lines are well documented as well as the negative impacts associated with the inability to delay gratification (Ludwig, Flournoy, & Berkman, 2019). Being able to delay gratification is cognitively costly and requires resources that are sapped by the environmental stressors and the instability that characterizes the lives of many lower-class individuals. However, little research exists on the effects of impulsivity on prosocial behavior. It is possible that this very shortcoming may encourage costly prosocial behavior in face-to-face interactions – a theory supported by findings

indicating that in face-to-face scenarios, low-income individuals typically behave more prosocially than their wealthy counterparts (Kraus & Keltner, 2009; Piff et al., 2010).

Not only does SES have implications for micro interactions at the interpersonal level, but research suggests that class plays a part in broader, system level perceptions such as adoption and endorsement of different worldviews. Stable and regular access to both material and social resources enables individuals to more actively and freely pursue personal goals with fewer barriers, buffers against the effects of economic hardships, and increase feelings of personal control (Kraus & Keltner, 2009; Lea & Webley, 2006; Stephens et al., 2007). Specifically, while individuals of low SES understand and justify their situation on the basis of uncontrollable contextual factors like life opportunities and holistic economic systems, individuals higher up in the hierarchy cite more meritocratic explanations for class inequalities (Kluegal & Smith, 1986).

Furthermore, research conducted by Guinote and colleagues (2011) posits that social status may act as a modulator for endorsement of egalitarian ideals and prosocial behavior. This research revealed that subtle cues to social status modulated tendency to engage in prosocial action. This effect held for both adults and preschool children, with individuals of lower social status engaging in more prosocial behavior and endorsing more egalitarian lifegoals compared to their high social status counterparts. This finding is in line with research conducted by Kraus et al. and Piff et al. (2009; 2010) indicating that individuals of low SES are more socially attentive, affiliative, and present oriented, as stated prior. Unsurprising, this effect is exacerbated when individuals live in areas with extreme economic disparities. In these environments characterized by income inequality, lower-class participants indicated further rejecting meritocratic explanations of economic stratification, while higher-class individuals' support of this explanation was bolstered (Newman, Johnston, & Lown, 2015). Contributing to these findings,

Vohs and colleagues (2006) found that money may increase individuals' feelings of self-sufficiency, supporting the adoption of an internal locus of control.

Importantly, a difference in cultural values may also play a role in the different expression of prosocial behavior across classes. There is some evidence to suggest that low income and wealthy individuals are taught to react to environmental cues in disparate ways. It is well documented that parental values differ across SES (Schwartz, 2007). For instance, during development, parents of high SES tend to emphasize self-direction and creativity – skills that encourage self-advocation and allow greater potential for furthering one's personal goals. Conversely, parents from the lower echelons tend to accentuate respect and conformity – characteristics helpful in encouraging prosocial behavior but perhaps at a detriment to their personal goals (Piff et al., 2010; Schwartz, 2007). Furthermore, individuals of higher-classes are endowed with financial resources which directly increase their social power (i.e. their tangible control over resources and other people that increases abilities to pursue both personal and organizational goals) (Cheng & Tracy, 2013). This increased social power may lessen the benefits associated with engaging in affiliative behavior, decreasing the desirability and need to be attentive to others (Guinote, 2011).

Research examining the more direct effects of SES on prosocial behavior revealed evidence supporting a negative relationship between social class and prosociality (Piff et al., 2010). Specifically, across a suite of studies researchers found that lower class individuals were more charitable, more trusting, more generous, and more helpful than their peers from a higher social class (Piff, Kraus, Côté, Cheng, & Keltner 2010). Researchers interested in whether this effect was able to be produced artificially found that when subjective social class was manipulated, individuals who felt they were more financially vulnerable were more inclined to

engage in prosocial behavior as measured by willingness to volunteer (Moyal, Motsenok & Ritov, 2020).

Additionally, recent research conducted by Motsenok and Ritov (2021) found that the saliency of relative financial position also may play a role in differences in prosocial behavior across income groups. Motsenok and colleagues (2020) suggest that priming individuals in this way may increase feelings of vulnerability thus encouraging participants to correct negative feelings by engaging in prosocial behavior, which has been shown to boost mood. Alternatively perceived financial vulnerability may act as a motivator to engage in prosocial action, due to an expansion or reframing of who is considered an ingroup member (Motsenok & Ritov, 2020). In line with this theory, research exploring why lower-class individuals may have a greater tendency to act prosocially revealed that the effect was moderated in-group status, with the effect only holding when the proposed charity or volunteer organization involved a member of the participant's in-group (Motsenok & Ritov, 2021).

Not only does research indicate that lower-class individuals may have an increased propensity to engage in prosocial behavior, but research conducted by Dubios, Rucker, and Galinsky (2015) suggests that higher social class individuals showed an increased penchant for engaging in self-serving behaviors at the expense of others (i.e., cheating when throwing dice and keeping lost money). This is consistent with research on shoplifting and tax fraud, which consistently reveals a positive relationship between income and unethical behavior (Foot & Yoder, 1996). In line with these findings, Piff, Stancato, and Horberg (2016) provided supporting evidence across seven experiments of the positive relationship between income and unethical behavior, with higher income individuals behaving less cooperative, showing less gratitude, and overall engaging in fewer other-regarding behaviors.

Taken together, there is strong evidence to suggest that individuals hailing from a low SES may be more prosocial than their upper echelon counterparts. Researchers offer several explanations drawing on the social-cognitive perspective in effort to make sense of these findings in light controversy. Specifically, they suggest that due to environmental factors that characterize low-income communities, it may be adaptive for lower-class individuals to be more attuned to social context, increasing their sensitivity to the distress of others. Furthermore, social and cultural values, including the adopting and endorsement of different worldviews, may play a role in differences in prosociality observed across socioeconomic lines.

Positive Relationship between SES and Prosociality

While the amount of research findings indicating a negative relationship between SES and prosocial behavior is compelling, several researchers have revealed contrary findings both in original research and replication attempts (e.g., Bekkers, 2004, 2006; Bekkers and Wiepking, 2006; Havens et al., 2006; Korndorfer et al., 2005; Van Slyke and Brooks, 2005; Vieties, 2017). Despite the robust theoretical explanations offered by proponents of the psychological perspective detailed above, there is dissent within the research regarding the reliability of such findings. A variety of studies have revealed the exact opposite relationship between SES and prosocial behavior, and others still have found no relationship at all (Bekkers and Wiepking, 2006; Havens et al., 2006; Korndorfer et al., 2005). These studies largely adopt a different framework when examining the relationship between prosociality and SES; that is, rather than approaching the issue strictly from a psychological perspective, these researchers often observe the relationship through an economic lens as well.

The economic framework suggests different theoretical underpinnings in that marginal utility is a much larger point of emphasis. In an effort to reconcile the ostensible paradox

between prosocial behavior and the canonical representation of the rational, self-interested agent motivated to maximize utility, researchers analyze how prosocial behavior may be associated with or serve as a direct reward itself (Strang, 2015). Indeed, neuroscientific findings indicate that performing prosocial behaviors such as monetary donations or acts of reciprocal altruism activate reward networks in the brain (Declerck et al., 2013; Ferh and Camerer, 2007; Moll et al., 2006; Rilling et al., 2002). Furthermore, research suggests prosocial spending (i.e., using one's material resources to assist others) is positively associated with increases in happiness for both the giving and receiving party (Aknin et al., 2013, 2012,; Anik et al., 2009; Dunn et al., 2008, 2014; Martela and Ryan, 2015; Weinstein and Ryan, 2010). These findings act to reconcile the apparent contradiction inherent to acts of costly altruism within the standard economic model.

Within this framework, individuals engage in mental cost-benefit analyses to determine the utility of a given action prior to engaging in any prosocial behavior. This model poses an interesting perspective when examining differences in prosociality across class lines. Specifically, affluent individuals have excess resources beyond those required for the minimum standard of living, thus the higher up on the social/economic hierarchy an individual lies, the lower the marginal utility of money becomes. For instance, scholars examining economic inequality in the EU found that high-class participants behaved in more prosocial ways compared to their low-class counterparts (Hermanni & Tutic, 2019). Specifically, ninth graders attending better schools in areas of high stratification donated more to anonymous strangers in the dictator game than their peers from a school located in an area of greater deprivation (Liebe & Tutic, 2010).

These findings contradict results from of Cote and colleagues (2015) who, in an effort to reconcile discrepant findings regarding the role of SES in prosocial behavior, suggested the

relationship is moderated by economic inequality. That is, they posit the "having less but giving more" effect reported by Piff et al., (2010) is only observable when individuals perceive greater amounts of economic inequality. Despite the addition of this compelling qualifier, some researchers remained unconvinced given just how disparate findings between studies were. Due to this inconsistency researchers sought to replicate the findings of both Piff and Cote (2010; 2015). However, both direct and conceptual attempts at replicating said findings were unsuccessful (Korndorfer, Egloff, & Schmukle, 2015; Von Hermanni & Tutic 2019). Neither the main effect of income on prosocial behavior or the moderating effect of economic inequality were reproduced across multiple, high-powered replication attempts (Korndorfer, Egloff, & Schmukle, 2015; Von Hermanni & Tutic 2019).

In fact, Von Hermanni and Tutic's (2019) attempt at replication revealed evidence to the contrary, finding a positive relationship between social class and prosocial behavior as measured by the dictator game and charitable giving. Korndorfer and colleagues (2015) had similar results in their conceptual replication, again, finding moderate support for a positive relationship between social class and prosocial behavior. Likewise, Liebe and Tutic (2010) found neither a negative relationship between SES and prosocial behavior nor a moderating effect of income inequality on SES and prosocial behavior in their high-powered replication. Irrespective of the degree of inequality, individuals of high SES tended to act more prosocially, despite possessing a higher degree of entitlement (Von Hermanni & Tutic 2019; Schmukle, Korndorfer, & Egloff, 2019). Furthermore, results revealed that when levels of inequality increased, individuals of high SES actually acted in more modest and prosocial ways. These results call attention to the unreliable findings within the literature, while also hinting that motivations for prosociality may vary across class lines.

Differences in marginal utility derived from prosociality offer a potential explanation for variance in findings across studies. Given that it is well established that prosocial behavior is both associated with rewards, and is rewarding in and of itself, higher class individuals may see a higher net utility in engaging in prosocial behaviors, especially those involving donations. Consistent with this assertion, Andreoni et al. (2017) revealed that as financial pressures rise, so too does the discrepancy in donation behaviors between the rich and poor. Specifically, researcher found that higher-class individuals tend to behave more prosocially than their less affluent counterparts when financial pressures loom near (Andreoni et al., 2017). This disparity arises due to difference in net utility experienced as a result of prosocial behavior across the social spectrum (Vietes, 2017). Furthermore, this result calls back to the findings of Mani et al. (2013) stating that financial stressors inhibit cognitive functioning and decrease effective decision making capabilities, which may offer further insight to this findings.

While financial pressures are an important piece of the puzzle in explaining propensity to engage in other-regarding behavior, it does not capture the entire picture. Similar to how social class is experienced at both the subjective and objective level, the perceived cost of prosociallity is effected by both factual and perceptual domains. Wiepking and Breeze (2012) found that individuals' respective donation amounts were influenced by their subjective approach to money. Regardless of their actual financial position, when individuals were afraid of lacking money in the future or more generally worried about their overall financial situation, they donated less to charity (Wiepking & Breeze, 2012). On the other hand, individuals who held a positive outlook about their financial situation tended to be more generous donors, were more likely to donate, and more likely to attend charitable events (Bennett and Kottasz, 2000; Havens et al, 2006; Schlegelmilch et al., 1997).

Not only do those of higher SES potentially experience reduced costs when preforming prosocial acts, but according to some researchers they may also enjoy increased benefits from acting prosocially. Several studies have identified that opportunities for reputation formation act as a key motivator in promoting cooperative and prosocial behaviors (Haley and Fessler, 2005; Leimar and Hammerstein, 2001; Nettle et al., 2013; Oda et al., 2011; Panchanathan and Boyd, 2004). Impression management and reputation formation have long been central to reproductive fitness and social cohesion, acting as powerful motivators for prosocial action. Indeed, Bekkers (2010) found that those contributing to the collective good receive approval while those who refuse to contribute are punished via damaged reputation and ostracization. Moreover, Bird and Power (2015) revealed that engaging in prosocial behavior or signaling prosocial intent actually magnifies an individual's centrality within a given network, further increasing the utility of acting prosocially. Taken together, these findings emphasize the importance of both financial and social capital in encouraging prosocial action.

By definition, higher class individuals possess more disposable resources which leads to both a lower cost and a greater benefit in performing prosocial actions. These benefits are take the form indirect monetary rewards, socioemotional emotional satisfaction, and the acquisition of social capital. Research conducted by Ostower (1997) indicates that high class individuals may have adopted philanthropic ideals to bolster social and cultural experiences within their class. Contributing to this line of thought, wealthier individuals' contributions to charity tend to be more heavily publicized than donations made by those of the lower echelons (Weissmann, 2015). Interestingly, research examining donation patterns indicates the affluent tend to donate larger amounts less frequently, saving up to make more impactful donations (Schervish and Havens, 2003). In light of these findings, it is unsurprising that those of the upper-class are more sensitive

to reputation formation cues than those of lower-class as the signifiers are crucial in securing more social capital (Kraus and Callaghan, 2016).

Furthermore, across a suite of studies, researchers found that whether a prosocial behavior occurred in a public vs private context mattered. Individuals hailing from higher class backgrounds were more likely to engage in prosocial behavior than lower class individuals, while the opposite was true for private contexts (Kraus & Callaghan, 2016). When individuals participated in a private dictator game, individuals of lower SES were found to be more prosocial than individuals of higher SES (Kraus & Callaghan, 2016). Further analyses revealed that a primary motivator for engaging in helping behavior was pride for higher-class participants, partially accounting for class-based differences, again emphasizing how social capital and socioemotional satisfaction act as both motivators and rewards for acting in prosocial ways (Kraus & Callaghan, 2016).

Consistent with this finding, wealthier individuals reported expecting to feel more pride following prosocial acts, which predicted a greater preference for engaging in public rather than private prosocial behavior (Nettle et al.,2013). Liu and Hao (2017) revealed that primary motivators for helping behavior likely differ across SES, with reciprocity, pride, and reputation formation acting as key motivators for high class individuals and generosity, desire to cooperate, and compassion acting as primary motivators for lower class individuals. In line with this, past research shows that lower class individuals tend to exhibit more cooperative tendencies compared to their upper-class counter parts (e.g., Guinote, Cotzia, Sandhu, & Siwa, 2015; Kraus, Coˆte´, & Keltner, 2010; Stellar et al., 2012). Together, these findings drive home the discrepancy in both motivation associated with engaging in prosocial behavior across class lines,

while also further detailing how higher class individuals may derive greater utility from public prosocial action in the form of social capital compared to their less wealthy counterparts.

Beyond being rewarded in solely social capital for their good deeds, high class individuals enjoy greater monetary rewards in the form of tax benefits compared to those with less resources due to their donation patterns (Bullock, 1996; Hay & Muller, 2014). Interestingly, a relatively small portion of total monetary donations are targeted towards those in need; rather, the wealthy primarily donate to institutions central to their social and cultural life (Surrey, 1970). Furthermore, those who donate large amounts to charity experience income tax benefits, with each additional dollar donated diminishing income tax liability by one times the marginal tax rate. In countries with a progressive income tax rate, individuals who find themselves at the bottom of the social ladder are penalized compared to their wealthier counterparts. An abundance of research has shown tax regimes act as important predictors of large-scale individual philanthropy but have no relationship with small-scale donations (Auten et al., 1992; Duquette, 1999; Hay & Muelle, 2014)

Finally, in support of the positive relationship posited by the economic model, there is some research that suggests, individuals of lower SES may be more likely to exhibit antisocial behavior, engage in poor coping strategies, trust strangers less, have difficulties regulating emotions, and report higher levels of psychological distress, all of which have direct implications for propensity to act prosocially (Evans, 2004). Additionally, outcomes, such as educational attainment and hours worked as an adult indicate that SES is largely recursive, with these outcomes being both predictors and consequences of SES (Diemer & Rasheed, 2009). These behavioral, socioemotional, and predictor variables all have reported influences on prosocial behavior (Benenson et al., 2007; Cote, House, & Willer, 2015; Evans, 2004; Nettle, Colleony, &

Cockerill, 2011; Holland et al., 2012; Schmukle, Korndörfer, & Egloff, 2019; Silva & Mace, 2014).

In sum, under the economic framework discussed in this section, higher-class individuals enjoy more benefits and experience fewer costs from engaging in prosocial behavior. Wealthier people enjoy a greater net utility from prosocial action, whether it is derived from social and financial capital or comes from a place of altruism, leading them to behave in more prosocial ways according to the measures commonly used within the economic model.

Caveats and Limitations

Even within each camp there exists nuance within results, with a variety of modulating variables proposed as explanatory factors for disparate findings. For example, researchers have observed that children living in neighborhoods higher in neighborhood deprivation were less likely to engage in prosocial behavior towards strangers; however, when the target of prosocial behavior was specified as an ingroup member, there were no differences between groups (Safra et al., 2016). This is consistent with the findings of Benenson and colleague's (2007) study which revealed that environmental harshness broadly inhibits prosocial behavior as measured by generosity. This effect is constant across age groups, with past research indicating that adults living in harsher environments were less likely to engage in prosocial behavior towards faceless strangers (Holland et al., 2012; Silva & Mace, 2014). However, adults across income groups were equally likely to act prosocially when the measure involved an in-person tasks, regardless of environmental harshness, (i.e., dropped letter task) (Holland et al., 2012; Silva & Mace, 2014). That is, adults living in low-income neighborhoods were less likely to give to a faceless stranger than their affluent peers but were equally likely to help a stranger in person (Holland et al., 2012).

These results are especially interesting in light of the discovery that income disparities within cities lead to greater differences in altruistic behavior than differences across cultures (Silva & Mace, 2014). These findings indicate that micro-level variables such as neighborhood deprivation, exposure to violence, and social class may have a greater impact on moral development than broader variables such as ethnicity, religion, and race. Despite this, research examining giving behavior across SES has revealed inconsistencies in the effects of income on how individuals within certain subcultures and across different countries engage in prosocial behavior (Evans, 2004; Nettle et al., 2011). For instance, children from a low-income background in China actually displayed increased propensity to engage in prosocial behavior compared to their higher-income peers (Chen, Zhu, & Chen, 2013). However, Evans (2004) found that children from impoverished subcultures were less likely to trust others to reciprocate various forms of prosocial behaviors, perhaps offering a tentative explanation at mechanisms driving these seemingly inconsistent patterns in giving across income groups.

These differences in social engagement across classes presents potential challenges in the ways prosocial behavior is traditionally measured. Regardless of proposed mechanisms or theoretical underpinnings, research examining how SES affects prosociality has been largely limited by the way prosocial behavior is analyzed, giving little scrutiny to how prosocial behavior may manifest differently from class to class. Typical measures of prosocial behavior include actual monetary donations, generosity and cooperation via economic games, and willingness to donate either time or money to charity (Korndorfer et al., 2015).

This restriction ignores how individuals from different social classes develop and express potentially distinct other-regarding behaviors (Finklestein, 2009). For instance, social proximity plays an important role in encouraging prosocial behavior through increasing awareness of

others' needs and attention to active solicitations to help which are inherent antecedents to prosocial behavior (Bekkers and Wiepking, 2011). In face-to-face interactions, feelings of empathy, compassion, and personal distress play active roles in motivating prosocial behavior in ways not seen in anonymous interactions (Galinsky et al. 2006; Kleef et al., 2008). Furthermore, feelings of connectedness is closely related and directly affected by social engagement and has consistently shown to have a positive relationship with prosocial behavior (Apicella et al., 2012; Branas-Garza et al., 2010; Nolin, 2010; Small and Simonsohn, 2008).

These findings have distinct implications given the research on how low-income individuals express prosociality and proximal mechanisms involved in motivating said prosociality. As addressed prior, individuals hailing from lower-class backgrounds are more likely to act prosocially in in-person rather than faceless stranger or anonymous scenarios (Van Kleef et al., 2008). Researchers have identified that individuals from low socioeconomic background are more attuned to the distress and emotions of others and know that this present and other-regarding orientation is a key motivator in encouraging prosocial behavior.

By using anonymous economic games or faceless hypothetical scenarios, researchers may be misrepresenting levels of prosocial behavior within this population. While these experimental measures ensure a certain degree of internal validity and enable researchers to infer causality, they are lacking in external validity due the issues mentioned above as well as samples consisting largely of homogenous university students.

Furthermore, relying on donations to charity or willingness to donate to a hypothetical charity also presents unique limitations for measuring prosocial behavior across social class due to tax incentives and differences in utility derived from prosocial action across SES. It goes without saying that $100 has different relative value across social classes, making amount

donated alone an insufficient and potentially inaccurate measure of prosociality, despite its external validity. Furthermore, motivations and proximal mechanisms may differ when measures of prosocial behavior are posed through tasks so removed from interpersonal connection; feelings of empathy and other relationship-oriented motivators may play a lesser role in encouraging prosociality. This concern is validated by inconsistent findings within the literature across different measures of prosociality, leading to a controversy regarding the true nature of the relationship between SES and prosocial behavior.

Conclusion

Social class is not constrained to the material capital an individual possesses; instead, it represents a complex constellation of environmental and internal variables that shape the social context of individuals' lives (Kraus et al., 2012). The current paper sought to detail conflicting findings regarding the role of SES on prosocial behavior across the literature, paying close attention to both the psychological and economic models proposed by different fields. In this process, the review discussed distinct mechanisms that motivate lower- and higher-class individuals to engage in prosocial behavior and how these differences potentially developed. Furthermore, the review attempted to address common shortcomings within the literature in order promote a more nuanced understanding of the role in which class plays in encouraging or inhibiting prosocial behavior and how the mindful use measures may be implemented to more accurately capture prosociality.

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