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The effects of low socioeconomic status on decision-making processes

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Abstract:	Low income groups are often criticised for making decisions that harm their long-term life outcomes. This article reviews research that attempts to understand these decision-making patterns as a product of adaptive responses to the situation of low socioeconomic status. It proposes that low income contexts present socioecological cues concerning resource scarcity, environmental instability, and low subjective social status, which trigger a regulatory shift toward the present and the tuning of cognitive skills and focus to address immediate needs. These shifts in psychological processes lead to decisions that are rational in the proximal context of socioeconomic threat, but may hinder the achievement of more distal goals.
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The effects of low socioeconomic status on decision-making processes

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Highlights

- Low income groups are criticised for making suboptimal decisions in domains such as health and finance.
- I propose understanding such decisions as the product of a psychological shift in response to the socioecological cues prevalent in low socioeconomic status (SES) contexts.
- Low SES experiences present the cues of resource scarcity, environmental instability, and low subjective social status.
- These cues trigger a shift in self-regulation to prioritise present (over future) goals and the up/down-regulation of specific cognitive skills.
- I point to future promising avenues in developing a mechanistic understanding of the psychology of low SES which does justice to the ecologically responsive nature of human decision-making processes.

Low income groups are often criticised for making decisions that harm their long-term life outcomes. This article reviews research that attempts to understand these decision-making patterns as a product of adaptive responses to the situation of low socioeconomic status. It proposes that low income contexts present socioecological cues concerning resource scarcity, environmental instability, and low subjective social status, which trigger a regulatory shift toward the present and the tuning of cognitive skills and focus to address immediate needs. These shifts in psychological processes lead to decisions that are rational in the proximal context of socioeconomic threat, but may hinder the achievement of more distal goals.

1. Introduction

The socioeconomic hierarchy is one of the most prominent ways in which power and status is distributed in contemporary societies. Yet it is only recently that researchers have attempted to understand the psychological impact of one's socioeconomic position (see (1–4)). This review focuses on how the experience of low socioeconomic status (SES) affects cognition and decision-making in ways that matter for life outcomes. It thus tackles a question that has troubled the social sciences for decades (e.g., (5–7)): why do those on low incomes so often make decisions, from smoking cigarettes to taking out high-interest loans, which seem to harm their life outcomes?

2. Psychological shifts in response to socioecological cues

Attempts to answer this question have moved from assuming that decision-making patterns of low socioeconomic groups reflect a set of deficient psychological traits, to investigating them as the product of the experience of low SES itself (see, e.g., (2,8,9)). While appealing at the policy level, this shift in orientation will only succeed as a scientific endeavour if it can document how the workings of specific psychological mechanisms are shaped by specific components of the experience of low SES, and why.

Two broad sets of decision-making mechanisms that have been the focus of research on the psychology of poverty are self-regulation and cognitive functioning. Observations of unhealthy eating, unwise spending, and poor academic performance among low income groups have been explained, in part, in terms of the disruption of key regulatory and cognitive processes by the mental pressures of poverty, as documented through present-based behaviour and poor performance on executive functioning tasks among those for whom resource scarcity is made salient (10–12) (though see (13)). Yet the experience of low SES involves more than resource scarcity, and its impact is not merely disruptive. Two other psychologically potent aspects of low socioeconomic positioning are instability (and consequent unpredictability) and low subjective social status. I propose that cues concerning scarcity, instability, and low status trigger adaptive shifts in regulatory and cognitive functioning that can help us make sense of seemingly suboptimal decision-making patterns at the bottom of the socioeconomic hierarchy ((14); for treatments also taking an adaptive focus, see (15,16)).

3. Low SES cues resource scarcity

Given the importance of food and shelter for survival and reproduction, it is no surprise that the mind has evolved to respond rapidly to cues that such resources, or the means to acquire them, are scarce (17). One suite of adaptive responses to resource scarcity involves taking extra care with the resources one has, and prioritising mental efforts toward behaviours that can meet the immediate shortfall. Energy, both mental and physical, is limited for any organism, so investing it in meeting an urgent need comes at the cost of investing it in meeting longer term goals, yet this can still be the best way of enhancing fitness in a challenging environment (18,19). To the extent that not having enough money to meet one's needs cues this basic sense of resource scarcity, it should cause regulatory and cognitive priorities to shift toward the most immediate financial concerns, at the cost of long-term economic outcomes.

This logic can help us make sense of the finding that the lower one's SES, the more likely one is to exhibit signs of apparent failures in self-regulation, such as impulsivity, future discounting, and poor planfulness (20), and that reminders of economic scarcity lead to present-biased financial decisions among those who grew up in families experiencing financial strain (21) (though see (22)). On this account, it is not that early life or adult exposure to adversity diminishes self-regulatory capacity (23), but that it shifts regulatory priorities toward meeting short-term goals (see (24–27)).

An adaptive approach can also help recast the literature on the link between SES and cognition, which has focused on the ways in which cognitive functioning is damaged by exposure to deprivation in childhood (28–32) or financial strain in adulthood (33,34), including where the latter is experimentally made salient (10,11,35,36) (though see also (13,37)). Pivoting away from this focus on impairment, research informed by evolutionary and ecological considerations is beginning to chart how childhood adversity may lead to specialisation in cognitive development, enhancing cognitive skills most useful for survival in challenging environments, such as those that enable the navigation of social conflict (38–40). Experimental studies are also showing how financial scarcity shapes cognition in subtle ways, directing the mind's attention toward money-related concepts (41), inoculating people against framing effects that can distort perceptions of value (42), and even improving performance on some cognitive tasks (43).

4. Low SES cues environmental instability

Effectively navigating one's ecological context relies not only on having basic needs met, but also on being able to predict how and when environmental conditions may change (44). Indeed, consistency and predictability are recognised as key to successful psychological development in childhood (45) and self-regulation in adulthood (46,47). Yet low income environments often feature forms of instability affecting everything from housing and family structure to income and employment (48–50). If one is constantly exposed to cues that one cannot predict what one's income will be in a month's time, or what one's living situation will be in a year, then it makes sense to focus energy on meeting needs in the present, rather than waste it on an uncertain future (see also (19)).

In the economics literature showing the negative impact of personal financial instability over and above absolute income (e.g., (51)) instability was shown to increase levels of obesity (52), consistent with its proposed effect on self-regulation. Indeed, recent attempts to understand the regulatory shift toward the present observed in low income groups highlight the psychological potency of environmental instability and consequent uncertainty, whether experienced in childhood (53) or adulthood (54).

Similar findings are emerging concerning the impact of environmental instability on cognition. Here, research is documenting how unpredictability as experienced in childhood, once it is made salient again in adulthood, down-regulates the performance of some executive functions, while up-regulating the performance of others (55,56) (see also (57)). The extent to which experiences of low SES involve the salience of ecological cues of environmental instability is thus a key component in understanding how it shapes psychology and decision-making.

5. Low SES cues low subjective social status

Of course, humans do not navigate challenging environmental conditions alone: they do so in the presence of others with whom they can cooperate or compete, and among whom status and hierarchies are key (58,59). The context of low SES is thus a *socio*ecological one, in which decision-making should be shaped by consideration not only of absolute resources, but of relative resources in comparison to others (60–62). It is thus no surprise that humans early on come to detect where they stand on the socioeconomic hierarchy (63),

that measures of subjective SES explain important aspects of socioeconomic differences in well-being (64), and that perceived social rank features prominently in theories of the psychology of social class (65).

One of the many psychological effects of perceptions of low hierarchy position is a shift from focusing on one's own goals to the goals of those higher in rank (66)—one that makes sense to the extent that the latter act as gatekeepers to meeting one's needs, but may be reflected in apparently poor self-regulation. Furthermore, the low sense of control that comes with low subjective social status diminishes one's confidence that the future will turn out as planned (67), thus reducing the perceived payoff of forgoing immediate rewards. In line with this, there is evidence that experimentally induced perceptions of being low in a hierarchy, including in financial terms, increases future discounting (68,69) (though see (70)). One way of addressing a status threat is to seek ways of rapidly regaining status in the immediate social context, whether through risky behaviours that signal commitment, or consumption of status goods (see (71–73)), both aspects of decision-making in low income groups that are often cast as self-defeating (74,75) yet may be rational regulatory responses to the socioecology of low SES.

Moving from self-regulation to cognition, experiments have shown that feeling low in power can disrupt performance in executive functioning tasks (76), a pattern that is replicated in the case of low perceived socioeconomic standing (77), echoing findings on social class-based stereotype threat (see (78,79)). An exciting area for future research would investigate whether some cognitive functions are enhanced in response to low subjective social status, or whether performance on cognitive tasks might be improved where those tasks are made relevant to ways of addressing status threats (see (14)).

6. Conclusion & Future Directions

It is not as simple as debating whether poverty is driven by poor self-regulation and cognition, or whether, on the other hand, such core decision-making processes are impaired by the experience of poverty. Rather, this article has argued for a focus on the motivational shifts and specialist skills activated by the socioecological cues most pronounced in low SES contexts, in the context of limited mental resources. Self-regulation and executive functioning may have evolved to help us get away from the needs of the immediate context (80), but should be open to modulation to allow us to direct attention and energy back to the 'here and now' when the situation demands. Cues concerning scarcity or instability in resource supply and threats to personal status are important socioecological indicators that should trigger just such a psychological shift. The reorientation of the study of the psychology of poverty and social class toward an awareness of the rationality and adaptiveness of decisions made in low income contexts not only does greater justice to the behavioural choices of those at the bottom of the socioeconomic hierarchy; it can also reveal the role of underlying mechanisms in terms of ultimate explanations, and point us toward interventions that are multi-levelled and sustainable (9); (see also (15,16)). One avenue for exploring interventions to align decision-making in low SES contexts with long-term goals is to test for moderators that may buffer the link between SES and decision-making, such as social or community support (e.g., (81)).

There is much further research to be done to complete this picture, and likely more socioecological cues and psychological processes to consider. In addition to scarcity, instability and low status, low SES contexts often involve a range of psychologically salient experiences, such as stress (2,82), social exclusion (83), high mortality risk (84) (see also (4)), and even sleep deprivation (34). The influence of each aspect of the socioecology of low SES will likely vary by psychological mechanism, individual life stage, and wider economic and political conditions. Life history theory leads us to expect that cues of scarcity and instability have the greatest impact on regulatory strategies when experienced at birth and early childhood (19) (but see (85) for a critique), while epidemiological research highlights the importance of status concerns in adolescence and early adulthood (86), and recent neuroscience points to the cognitive impact of poverty at multiple life stages (87–90). The importance of scarcity likely decreases as a country's level of economic development increases (91), though there may be important cross-nation differences in this relationship depending on the strength of social protections for those at the bottom of society. The salience of instability among low income populations likely diminishes when such social protections take the form of guaranteed income, housing or healthcare, though this may be balanced by a trend toward casualization and resultant instability in low-paid work (92). Finally, the salience of low subjective social status likely increases with nation- or area-level inequality, given evidence that inequality increases the tendency for people to compare themselves with others (93).

Socioecological cues, in turn, likely shape the workings of a range of psychological processes beyond self-regulation and cognition, including self-appraisals (9), emotion (94), personality (95), and risk propensity (see

(53,82)), in a way that may matter for important life decisions. These influences are unlikely to happen in parallel, and an understanding of potential additive and interactive effects will be central to developing a full explanatory framework. One possibility that might unify findings on the link between SES and a range of behaviours is that the socioecology of low SES shifts the mind to focus on the proximal on all four dimensions of psychological distance (see (96)): not just the 'now' (as opposed to later), but also the 'here' (as opposed to far away), the actual (as opposed to the hypothetical), and those socially close (as opposed to those socially distant) (9,60). Testing this possibility in the social dimension might even help resolve an apparent paradox in the link between SES and prosociality, in which low social class is linked to greater compassion (97) and altruism (98) at the same time as being associated with low social trust (e.g., (99)) and increased aggressivity (100). A model of psychological shifts in response to socioecological cues would predict that the experience of low SES might trigger a kind of parochial prosociality, orienting one positively toward those from whom one is likely to get help (e.g., family, friends and community members), at the cost of those with whom one has no existing social bonds (e.g., outgroup members and representatives of state institutions such as schools). Evidence on the link between SES and breadth of social trust (101), in addition to the association between nation-level economic development and general trust (102), are consistent with this possibility (see also (9,53,81,103)).

Psychology may have come late to the study of the antecedents and consequences of socioeconomic conditions, but if it takes advantage of its position at the interface of the social and natural sciences, it might make yet sense of some of its most puzzling dynamics.

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Conflict of Interest

Declaration of interest: none

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23 July 2019

Dear Dr van Kleef,

I am writing with regard to the enclosed revision of my piece entitled, "The effects of low socioeconomic status on decision-making processes", for inclusion in *Current Opinion in Psychology* as part of the Special Issue on Power, Status, Hierarchy.

I am delighted that you found the piece to be of a high standard and suitably written to appeal to the audience of *Current Opinion*. I here outline my response to the minor changes suggested, in addition to any other edits made.

Your first suggestion was that I add a section outlining the impact of low socioeconomic status on life outcomes. As discussed over email, I decided against this as it would involve attempting to cover a large literature on socioeconomic gradients in outcomes as varied as health, education and income. This would not be possible to do to a high standard in a small amount of space, and would distract from the main focus of the paper on decision-making processes. You have stated your agreement with my decision on this.

Your second suggestion was to edit one sentence in the first paragraph of the concluding section so that it reads more clearly. The updated sentence now reads: "Self-regulation and executive functioning may have evolved to help us get away from the needs of the immediate context, but should be open to modulation to allow us to direct attention and energy back to the 'here and now' when the situation demands." I think that this edit improves the readability of the sentence and thank you for pointing out the issue with the previous version.

Finally, as requested, I have ensured the piece fully fits the formatting guidelines of the journal, by adding a Highlights section, adding section headings, and moving the reference annotations into the main bibliography. The only other changes made from the original manuscript are minor changes in wording, specifically: changing the title from "The effects of socioeconomic status on cognitive functioning and decision-making" to "The effects of low socioeconomic status on decision-making processes", replacing "immediate" with "proximal" and "long-term" with "more distal" in the abstract, replacing "shortfall" with "need" and "triggers" with "cues" in the first paragraph of Section 3, replacing "high power others" with "those higher in rank" and "will" with "may" in the second paragraph of Section 5, replacing "developmental psychology" with "epidemiological" and "the latter" with "inequality" in the second paragraph of Section 6, and replacing "large institutions" with "state institutions such as schools" in the third paragraph of Section 6. I have also cut the reference list slightly in order to focus on the most important recent work.

I hope that you will find this set of revisions adequately addresses your feedback, and that the manuscript is ready for publication in your special issue.

Yours Sincerely,

Jennifer Sheehy-Skeffington.

Assistant Professor of Social Psychology