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Boredom and Poverty: A Theoretical Model

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Most of us are affected by boredom—maybe not everywhere or not all the time, but at least somewhere and some of the time (Chin et al. 2017; Goetz et al. 2014; Larson and Richards 1991; Smith et al. 2015; Weybright et al. 2020). The prevalence of boredom is important. It signals our susceptibility to it and suggests that boredom is a widespread psychological phenomenon. The psychological reality of boredom has been underscored by work in the affective sciences. From psychoanalytical accounts of boredom (e.g., Fenichel 1951; Greenson 1953) to descriptions of boredom as a state of non-optimal arousal (e.g., Barmack 1938; Berlyne 1960), and from cognitive (e.g., Eastwood et al. 2012; Fisher 1993; Hill and Perkins 1985; Tam et al. in press) and existential theories (e.g., Maddi 1970; Van Tilburg and Igou 2012) of boredom to neurophysiological models of boredom (e.g., Danckert and Merrifield 1980; Mathiak 2013), a rich and productive research program has affirmed the importance and existence of boredom as a psychological phenomenon. What is more, research shows that whether or not we experience boredom does not depend merely, nor invariably, on some objective features of our situation. Rather, the experience of boredom is more reliably correlated with our subjective standing: how features of our situation are appraised by us, given our psychological resources and physiological states (Barbalet 1999; Eastwood et al. 2012; Fisher 1993; Martin, Sadlo, and Stew 2006; Mercer-Lynn, Bar, and Eastwood 2014).

Nonetheless, the success and attention that this paradigm of research has received over the last few decades should not mislead us to think that boredom is merely a personal issue: that is, an emotion or affective state whose social and historical context is a superficial feature that we can ignore when trying to understand its nature. Boredom is as much personal as it is social (see also Ohlmeier et al. 2020). Indeed, there are at least two different senses in which boredom is social. First, insofar as the experience of boredom is prompted (but not necessitated) by situational features and those features are influenced by our social standing, the experience of boredom is influenced by our social standing. No one would deny that boredom is social in this sense. Still, many discussions of boredom tend to focus on its proximal antecedents, ignoring its more distal determinants. To properly understand the social character of boredom we need to examine the structures that give rise to those proximal antecedents. Different social structures and institutions will give rise to different rates of the experience of boredom. Moreover, attempts to alleviate boredom would be ineffective if the structural factors remain unchanged. Second, boredom appears to be social in an additional, perhaps even stronger sense: the very experience of boredom is socially determined. Lest I be misunderstood, I should clarify that the claim of social determination of the experience of boredom does not vitiate the biological basis of boredom. Nor does it entail that boredom lacks an evolutionary history. What the claim of social determination entails is that the very character of boredom, and not just its frequency, is shaped by the dominant social forces that surround us. Depending on our social condition, boredom will be experienced differently.

My aim in this chapter is to take seriously the social character of boredom in both of the aforementioned senses. To that end, I articulate the ways in which our social standing,

and particularly our socio-economic status (SES), affects, even transforms, the experience of boredom. Even if boredom can be said to be *democratic*, in the sense that it can potentially affect all of us, it does not actually affect all of us in the same way. Boredom, I argue, is unjust—some groups are disproportionately negatively impacted by boredom through no fault of their own. Depending on our social position and self and others' perceptions of our SES, we can experience it more frequently, more intensely, and in ways that either leave us incapable of alleviating it or push us to harmful and maladaptive responses to it. Hence, seen in a socio-economic light, boredom can become a serious threat to our physical and psychological well-being. Insofar as freedom to pursue and achieve one's well-being is essential to human life and a primary concern of contemporary liberal societies, boredom should be considered to be a social justice issue. The disproportionately negative effects of boredom on lower SES groups indicate the profound ways that boredom affects individuals and further disadvantages those who are already in marginalized positions. Contrary to many historical accounts, boredom is not only the experience of the elite, the wealthy, or those with ample free time. In our current political, social, and economic climate, boredom is primarily the experience of the less privileged, the disadvantaged, and the marginalized.

1. Social Class

Social class does not exist naturally in the world, independently of our concerns, institutions, and opinions. Consequently, there is no fact independent of human practices and beliefs that determines class membership. All the same, within our intersubjective context, social class is both a powerful and effective determinant of human action and existence in general. Our

income and wealth, food and medical care, neighborhood and housing, education, participation in cultural and social institutions, and relationships, just to name a few, are linked to and determined by our economic and social status. Thus, even if social class is not “deep” in a metaphysical or biological sense—neither a “furniture” of the world nor a biological given—it is real through and through. It has causal significance and power; it relates to our past and shapes our present and future.

There are both objective and subjective indexes of SES. The former is an indicator of the social class of an individual based on some discernible and quantifiable feature of that individual. For instance, a classic Marxist analysis of class utilizes an objective indicator of social class because it divides society into two social classes—the bourgeoisie and the proletariat—depending on who owns the means of production. More recently, researchers have shifted away from using ownership of means of production as a determinant of social class. Objective SES is now generally determined in terms of income and financial resources, educational attainment, occupation, or participation in various social institutions (Oakes and Rossi 2003). In addition to objective measures, researchers also utilize subjective measures of SES. These measures assess individuals’ perceptions of their class membership and relationship to others. A widely used measure of subjective SES gives individuals a drawing of a ladder and asks them to place an “X” on the rung where they think they stand relative to other people in either their country or community (Adler et al. 2000; Goodman et al. 2001). There is clear evidence that both objective and subjective assessments of SES are necessary and valid: they are only moderately correlated with each other and they independently predict different class-related outcomes (Adler et al. 2000; Goodman et al. 2001).

Studies have demonstrated the many and profound ways in which social class shapes our lives. Material resources (or lack thereof) affect one's social opportunities, marriage and relationship prospects, educational attainment, and access to social institutions (Bourdieu 1985; Fiske and Markus 2012; Lareau 2011; Manstead 2018; Shafer and James 2013; Stephens, Fryberg, and Markus 2011). In addition, class membership affects physical and psychological well-being (Adler et al. 1994). Lower-class individuals are more vulnerable to physical disease and at a greater health risk (Adler et al. 2000; Cohen et al. 2008). They also experience lower subjective well-being, more negative moods, and more chronic stress relative to those belonging in higher social classes (Sapolsky 2005; Diener and Suh 1997; Gallo and Matthews 2003; Howell and Howell 2008; Vliegenthart et al. 2016). There are also discernible cultural differences between members of different social classes. Manners and etiquette (Bourdieu 1975; Elias 1978), aesthetic and gustatory preferences (Snibbe and Markus 2005), language use (Bernstein 1971), parenting strategies (Lareau 2011), even one's accepted norms and expectations turn out to be class specific (Stephens et al. 2012). Lastly, social class has been shown to affect or impact the construction of one's self (Kraus et al. 2012), prejudices and prosocial actions (Manstead 2018), and behaviors in educational contexts (Lareau 2011; Stephens et al. 2012).

Without a doubt, social class is a powerful determinant of one's existence—it affects our lives in numerous and significant ways, ones that are often invisible to us and are entrenched in historical and social institutions. In light of the effects of social class and specifically the dangers and harms that members of lower classes face on account of their class membership one might question the importance of examining the issue of boredom.

Compared to everything else that low SES individuals have to endure, isn't boredom a trivial matter?

It is not. As a chronic condition or a propensity to experience boredom in a wide range of situations, boredom is far from trivial. Decades of research has documented the numerous harms and dangers that *boredom proneness* (a conceptualization and operationalization of one's propensity to experience boredom; Farmer and Sundberg 1986) poses. Although there are well-founded concerns with both the theoretical framework of boredom proneness and the psychometric properties of instruments assessing it (Gana, Broc, and Bailly 2019; Struk et al. 2017; Vodanovich 2003; Tam, Van Tilburg, and Chan 2021), research employing measures of boredom proneness shows that it is a serious threat to one's well-being. Individuals who score high on measures of boredom proneness report lower life meaning (Fahlman et al. 2019), lower life and job satisfaction (Farmer and Sundberg 1986), and poorer interpersonal relationships (Leong and Schneller 1993; Tolor 1989; Watt and Vodanovich 1999) compared to individuals who score low on such measures. Moreover, as measured by boredom proneness, the propensity to experience boredom often has been positively correlated, on the one hand, with depression (Ahmed 1990; Farmer and Sundberg, 1986; Goldberg et al. 2011; Malkovsky et al. 2012), loneliness (Farmer and Sundberg 1986), and hopelessness (Farmer and Sundberg 1986), and on the other hand, with anger and aggression, and hostility (Dahlen et al. 2004; Gana and Akremi 1998; Gordon et al. 1997; Rupp and Vodanovich 1997). Lastly, boredom proneness has been linked to a host of maladaptive behaviors. Boredom prone individuals are more likely to engage in risk-taking activities (Dahlen et al. 2005; Kass et al. 2010) and are more prone to problem gambling (Blaszczynski, McConaghy, and Frankova 1990; but see, Mercer and Eastwood 2010), and

drug and alcohol abuse (LePera 2011; Paulson, Coombs, and Richardson 1990), than those who are not prone to boredom.

Thus, if individuals in lower social classes are more likely to experience prolonged or more frequent boredom, then such an increased likelihood is an indication that they are also in danger to inherit the harms associated with boredom proneness. In section 3, I will complete this argument by offering reasons that suggest that an increase of boredom will be associated with lower SES. Additionally, boredom matters for individuals in low SES not only because of a potential increase in the frequency of the experience of boredom. As I will show in sections 4 and 5, our current understanding of boredom reveals that lower SES individuals are in a disadvantageous position when dealing with boredom. Hence, low SES individuals are doubly threatened by boredom: they are more likely to experience it more often and are less likely to be able to escape from it.

2. Boredom and Poverty: An Interactionist Model

Boredom is an experientially unpleasant state that involves a strong desire to engage in an alternative situation (Eastwood et al. 2012; Fahlman et al. 2013; Elpidorou 2014). The state of boredom has been associated both with attentional difficulties and negative appraisals of one's situation (Eastwood et al. 2012; Tam et al. in press; Van Tilburg and Igou 2017a; Westgate and Wilson 2018). On the one hand, during boredom one is experiencing an inability to engage in a satisfactory manner with the situation at hand. On the other hand, bored individuals find their situations to be lacking in meaning (Van Tilburg and Igou 2012), monotonous or repetitive (Thackray, Bailey, and Touchstone 1977), affording inadequate control (Caldwell et al. 1999; Martin, Sadlo, and Stew 2006; Shaw, Caldwell, and Kleiber

2006; van Hooft and van Hooff 2018), or non-optimally challenging or stimulating (Csikszentmihalyi 1975; Daschmann, Goetz, and Stupnisky 2011). Although there are additional aspects to the experience of boredom as well as disagreements about the centrality and exact role of those aspects, it is widely accepted that boredom is a state of perceived dissatisfaction with our situation (Elpidorou 2018a). It is both a bothersome reminder that we find ourselves in a situation for which there is a perceived mismatch between our desired engagement and actual engagement, and a motivating force that compels us to make its presence go away.

Boredom, we might say, is an aversively felt warning that we have found ourselves in an unsatisfactory situation. But that is not all. Because of its volitional, cognitive, and experiential character, boredom also calls on us to move out of our current state of discontent and into one that is either in line with our interests and preferences or engaging and stimulating in the right way (Bench and Lench 2013; Elpidorou 2020a, 2020b; Kurzban et al. 2013). Despite this inherent push that boredom carries, boredom cannot guarantee that one would be able to alleviate one's feelings of boredom. Boredom is a push for a change, but not the assurance of one. This aspect of boredom becomes obvious when we consider the effects of boredom within occupational and educational contexts. Bring to mind a seemingly never-ending work shift or a mandatory meeting. The boredom they induce is inescapable. Or think of workers in factories, secretaries inputting data, or students attending a lecture that is beyond their comprehension. They are often bored and forced to remain so until their work or class concludes. Hence, the very experience of boredom will not suffice to get us out of our discontent. We must also have the resources, freedom, and energy to do so.

Even when with our help boredom succeeds in realizing change, it is not necessarily for the better. As it has been widely discussed in the literature, our responses to boredom vary: they can be beneficial or harmful, moral or immoral, profound or mundane (Elpidorou 2017, 2020b; Van Tilburg and Igou 2017b). Boredom is an instigator of change—a felt provocation, we might say, to take action and to respond to a crisis of agency. Through its affective, cognitive, volitional, and psychological concomitants, it calls on us to do something other than what we are currently doing. All the same, it is limited in at least two ways. First, it never reveals to us what that something else is that we should be doing. While bored, subjects report a strong desire to do something other than what they are currently doing without however being able to readily identify what that is (Fahlman et al. 2013; Todman 2003). Second, the experience of boredom does not fabricate opportunities when those do not exist. Thus, without access to the right resources of alternative engagement, and without guidance as to what might be worth pursuing, it is easy to choose the wrong way out of boredom. It is no surprise that maladaptive responses to boredom are common. This is especially true for subjects who find themselves often in the grips of boredom, distressed and bedraggled by its force. Binge drinking, drug use, gambling, mindless eating, self-harm, even disobeying social distancing measures are all appropriate, in some sense, responses to the doldrums of life. They might not serve a greater purpose. They might even hinder one's chances for self-improvement and lead us back to boredom. Yet they offer a much-needed respite from the pains of ennui.

The aforementioned description of boredom suggests that if an agent lacks the material and psychological resources to properly respond to its onset, boredom can become both a burden to bear and a threat to the agent's well-being. The capacity to respond to

boredom is undermined and one is less likely to alleviate it in productive ways. In this way, boredom may become unjust. It can affect most severely those who, because of their social and material standing, will have a hard time escaping productively out of boredom.

It is time to offer a theoretical model in support of the previously raised contention that SES is an important determinant both of the experience of boredom and of our responses to it. The model on offer predicts that individuals in low SES are at a severe disadvantage when it comes to boredom. Specifically, and as depicted in Figure 8.1, the model proposes three distinct “pathways” by which poverty and low SES interact with boredom. First, our material conditions affect the antecedents and thus frequency of boredom. Being a member of a low socio-economical class, the model proposes, makes the experience of boredom more frequent because it puts subjects in situations that are known elicitors of boredom. Second, social status also affects the very experience of boredom: boredom is felt differently by individuals of low SES compared to those of high SES. Third, and finally, our responses to boredom are affected by our social status. In particular, individuals of low SES will have difficulties either alleviating or responding to boredom in productive and potentially beneficial manners. In my explication of this theoretical model, I focus primarily on making a case for the existence of the first pathway. In light of the many documented harms that boredom proneness poses to individuals, knowing whether such a pathway exists is of crucial importance. The second and third proposed pathways are also important, yet a full articulation of their workings would have to be the aim of a separate project. All the same, I do provide empirical evidence in support of their existence and role in the experience of boredom.

<INSERT FIGURE 8.1 HERE AND CAPTION>

Before I turn to a discussion of how social class (and specifically, low SES) interacts with boredom, it is crucial to mention an important limitation with the proposed model and approach that I take in this essay. The proposed model, based on the extant literature, treats SES as a monolithic category. In doing so, it fails to distinguish between the various ways in which one's SES interacts with race, gender, age, sexual orientation, gender identity, physical ability, ethnicity, nationality, religion, and other components of one's identity and determinants of group membership. Unfortunately, the empirical and conceptual literature upon which the model is based is not sufficiently intersectional (sometimes, it is not intersectional at all) to permit an investigation into the ways in which different group memberships interact with socio-economic status. This shortcoming calls for greater nuance in research programs moving forward. Having said that, the proposed model not only makes a strong case for the influence of SES on the experience of boredom but also paves the way for an intersectional analysis (Crenshaw 1989, 1991). It is of tremendous importance to determine precisely how low SES individuals of different groups experience boredom on the basis of their multiple identities. Yet, the first step toward an intersectional analysis requires that we offer an empirically supported model of how boredom and social class interact. This is the task that I undertake in this essay.

3. From Poverty to Boredom

To understand how social class membership relates to the occurrence and frequency of boredom, we first need to discuss the antecedents of boredom. When and where does

boredom arise? A survey of the literature shows that boredom is likely to arise in a variety of situations (Elpidorou 2018a). These include situations where one is faced with repetitive or monotonous tasks (De Chenne and Moody 1988; Hill and Perkins 1985; O’Hanlon 1981; Thackray, Bailey, and Touchstone 1977), non-optimally challenging tasks (Daschmann, Goetz, and Stupnisky 2011; Pekrun et al, 2010), conditions of constraint (Eastwood et al. 2012; Fahlman et al. 2013; Fenichel 1951; Geiwitz 1966; Hill and Perkins 1985; Todman 2013), situations which involve a sense of meaninglessness (Barbalet 1999; Fahlman et al. 2009; Van Tilburg and Igou 2012), the perception of feeling stuck (Brissett and Snow 1993), or an inability to find flow in one’s activities (Csikszentmihalyi 1975). Moreover, boredom also arises when one’s attentional resources are scarce or unavailable (Eastwood et al. 2012; Tam et al. in press; Van Tilburg and Igou 2017a; Westgate and Wilson 2018), when one is fatigued (Martin, Sadlo, and Stew 2006; Milyavskaya et al. 2019), or when one perceives oneself to not being in control of a situation (Troutwine and O’Neal 1981; Shaw, Caldwell, and Kleiber 2006; van Hooft and van Hooft 2018). These antecedents of boredom might appear to be a sundry list of conditions (both objective and psychological) that often give rise to boredom. Yet noting all of these conditions is helpful for it makes evident the variety of factors that can elicit boredom. Most importantly, the list allows us to directly examine the influence of social class on the experience of boredom. If social class makes the presence of elicitors or antecedents of boredom more likely, then it has an effect on the frequency of the experience of boredom. In what follows, I focus on what I take to be the three most significant antecedents of boredom—the presence of constraint, attentional difficulties, and perceived meaninglessness—and examine how each one relates to poverty.

Boredom and Constraint

The term “constraint” refers not only to situations that place physical limitations on us but also to situations that give rise to feelings of constraint or to the perception of lack of autonomy, lack of choice, or lack of agency. The boredom literature reports a close relationship between the presence of constraint and the experience of boredom.

Some theorists have included constraint in their theoretical explications of the character of boredom. For instance, Geiwitz (1966) analyzed boredom in terms of four dimensions, one of which was constraint. Fenichel famously quipped that boredom “arises when we must not do what we want to do, or must do what we do not” (1951, 359). In addition to accounts of boredom that have made constraint a constitutive part of the experience of boredom, many others have claimed it to be a cause of boredom. Fisher (1993) reported that organizational constraints are a cause of workplace boredom. Martin, Sadlo, and Stew (2006) and Steinberger, Moeller, and Schroeter (2016) provided evidence supporting a link between constraints and boredom during work. Iso-Ahola and Weissinger (1990) found that the presence of constraints contributes to the perception of boredom in leisure. Troutwine and O’Neal (1981) noted that choice (and thus the absence of constraint) reduces boredom. Scerbo (2001) argued that constraint is one of the factors that explains high levels of boredom during vigilance tasks. Perceived autonomy or lack of control have also been found to play a causal role in the experience of boredom. Within an academic context, Tze, Klassen, and Daniels (2014) found that low perceived autonomy resulted in higher levels of student boredom. For adolescents, perceived lack of control was predictive of the experience of boredom during free time (Caldwell, Smith, and Weissinger 1992) and lack of choice was positively associated with boredom (Shaw, Caldwell, and Kleiber 1996).

Van Hooft and van Hooff (2018) reported that subjects who were assigned to a low autonomy condition and were asked to perform a number of tasks experienced the tasks as more boring than individuals in a high autonomy condition (see also, Reijseger et al. 2013; van Hooff and van Hooft 2017). Even though the precise psychological mechanism by which constraint leads to boredom remains unclear, it is evident that the presence of constraint is an important antecedent of boredom.

Poverty and Constraint

Objective measures of poverty—income, education level, parents’ wealth, etc.—are metrics of freedom and constraint. Having more income allows one more freedom—as a consumer, citizen, parent, or an individual. Higher educational attainment is often a “passport” to more jobs. In general, one’s economic, social, and cultural participation, and residential and professional choices are a factor of one’s economic status such that, other things being equal, the less wealthy one is the more restricted one’s set of choices and freedoms becomes. Direct support for the existence of a close relationship between objective measures of SES and constraint is provided by findings documenting a positive association between income and increased reports of personal control in various domains of life (Johnson and Krueger 2005); a positive association between income and general perception of mastery (Lachman and Weaver 1998); and a negative association between income and perception of life constraints (Lachman and Weaver 1998).

Other approaches to poverty corroborate the intimate connection between poverty and lack of choice. Under a subjective understanding of SES, one has to indicate one’s economic status in relationship to others in one’s country or community. Although measures

of subjective SES do not explicitly address issues of freedom and constraint, it is reasonable to assume that an individual's reasoning for indicating their relative socio-economical position is affected by a comparative analysis between their own freedoms and those of others. The strong association between subjective SES and financial security is one reason to think that this is the case (Singh-Manoux, Marmot, and Adler 2005). Moreover, in an unpublished study, Snibbe and colleagues asked participants to narrate how they reasoned their place on the SES ladder. They reported that the most frequent criterion used by participants was material wealth (90% of participants), followed by occupation (72%) and education (62%) (Snibbe, Stewart, and Adler 2007). Such a result shows that our subjective perceptions of our SES are closely connected to objective measures which in turn relate to freedom and constraint. It is important to note that when individuals were asked to rank how they stand in their *communities* and not in their country, individuals used very different criteria to indicate their relative position. The most frequently used criterion was the ability to participate in giving activities (Snibbe, Stewart, and Adler 2007). This criterion is also reflective of one's freedom. How much one can help others is directly related to one's real or perceived freedom and lack of constraints.

Lastly, the link between poverty, on the one hand, and constraint and lack of freedom, on the other hand, becomes a definitional one, if one accepts a capabilities approach to poverty (e.g., Nussbaum 2000; Sen 1999, 2000). For the capabilities approach, poverty is not defined as lack of income or of some other resource but as the deprivation of basic capabilities (Sen 1992). Sen (2000), for instance, holds poverty to be “a capability deprivation, (that is poverty is seen as the lack of the capability to live a minimally descent life)” (4). Poverty, understood as lack of freedom, is thus inextricably bound to constraints.

Individuals in poverty are subject to various forms of constraints or unfreedom: little or no access to health care, undernutrition, lack of clean water, premature morbidity, illiteracy, lack of participation in social activities, and diminishment of personal freedom and the use of skills. Hence, poverty is fundamentally an obstacle to individuals' exercise of their capabilities.

Boredom and Attention

A close relationship between boredom and attention is well supported in the literature (for helpful discussions, see Eastwood et al. 2012; Hunter and Eastwood 2013; Tam et al. in press). It has been reported that individuals with a propensity to experience boredom report a difficulty with everyday attentional tasks (e.g., Carriere et al. 2008; Cheyne, Carriere, and Smilek 2006; Malkovsky et al. 2012) and tend to perform poorly on attention-based laboratories tasks (e.g., Hamilton, Haier, and Buchsbaum 1984; Sawin and Scerbo 1995). In addition, impairments of attention have been linked to increases in the experience of boredom. For instance, individuals with mild traumatic brain injury report attentional difficulties in everyday activities and perform more errors in attentional tasks (Dockree et al. 2006; Slovarp, Azuma, and LaPointe 2012; Ziino and Ponsford 2006). They also report the frequent experience of boredom (Kreutzer, Seel, and Gourley 2001) and tend to score higher on measures of boredom proneness (Goldberg and Danckert 2013). What is more, the experience of boredom has been found to be associated with poor performance in tasks that require sustained attention (Pattyn et al. 2008; Scerbo 1998; Thackray, Bailey, and Touchstone 1977). Lastly, there are theoretical accounts of boredom that render attention (or attentional difficulties) an essential part of the experience of boredom. In fact, early accounts

of boredom highlighted the importance of attentional difficulties in the experience of boredom going so far as to define boredom as the consequence of the “effortful maintenance of attention” (Leary, Canfield, and Coe 1986, 988. See also Damrad-Frye and Laird 1989; Hamilton 1981). More recently, Eastwood and colleagues (2012) have proposed a detailed and empirically grounded theoretical account of boredom that purports to explain its experiential components in terms of attentional mechanisms. Investigations into the cognitive appraisals of boredom corroborate the existence of an intimate connection between boredom and attentional difficulties (Smith and Ellsworth 1985; Van Tilburg and Igou 2017a).

The reported findings do not allow us to draw any definitive conclusions about the exact role of attentional difficulties in boredom. Indeed, it is still unclear whether attentional difficulties are the cause of boredom, an essential component of boredom, or the consequence of the experience of boredom. Although we cannot rule out the last option, it would be unreasonable to conclude that attentional issues are *always* the consequence of boredom. In fact, both available evidence (Hunter and Eastwood 2018), and theoretical models of boredom (Eastwood et al. 2012; Tam et al. in press) support the claim that attentional difficulties can give rise to boredom.

Poverty and Attention

The literature on boredom paints a clear enough picture about attention: the two are closely related. When we turn to the issue of how poverty and attention are related, however, the picture becomes fuzzier.

A growing number of researchers are becoming interested in the psychological differences between wealthy and poor individuals. In part, this interest can be explained by a movement in psychology and economics that aims to explain behavioral differences of individuals from different social classes on account of psychological or personal differences. Moreover, research on how conditions of material scarcity affect the psychology of individuals could give rise to novel avenues of research, hypotheses, and solutions to the seemingly counterproductive behaviors that have been associated with poverty (e.g., borrowing at high interest rates or spending money on lottery) (Banerjee and Duflo 2007; Blalock, Just, and Simon 2007; Haisley, Mostafa, and Loewenstein 2008). In their influential work, Mullainathan and Shafir (2013) proposed that poverty gives rise to a scarcity mindset that affects decision-making and behavior. The basic idea behind their theoretical model is that individuals who find themselves in conditions of scarcity need to think about money, budgets, expected and unexpected needs and demands constantly. These thoughts tax the individuals and consume their cognitive resources. As a result, poor individuals are left with fewer available cognitive resources for non-scarcity-related demands and tasks. Ultimately, conditions of material and financial scarcity adversely affect the psychology of poor individuals and as a result, such individuals tend to make choices that may further economically disadvantage them.

The scarcity theory or approach has given rise to a number of specific hypotheses concerning the psychological mechanisms that are meant to be responsible for the behavioral choices of poor individuals (Dean, Schilbach, and Schofield 2017; de Bruijn and Antonides 2021; Schilbach, Schofield, and Mullainathan 2016). Here, I focus on two claims that proponents of the scarcity approach have advanced and that directly pertain to the issue of

attention. First, it has been argued that poverty directs our attention to scarcity-related issues and in doing so, leads us to neglect non-scarcity-related issues. Second, it is theorized that scarcity has an adverse effect on mental bandwidth, or “the brain’s ability to perform the basic functions that underlie higher-order behavior and decision-making” (Schilbach, Schofield, and Mullainathan 2016, 435). Given boredom’s connection to attention, both claims are important. If poverty causes a shift in our attention, then this shift could be responsible for the experience of boredom—situations that otherwise would have captured our attention, they now fail to do so and thus elicit the experience of boredom. Moreover, if poverty reduces mental bandwidth—which includes both cognitive capacity (the ability to solve problems and reason in a logical fashion) and executive control (the ability to manage cognitive activities, including attention)—then boredom could arise because of such decreases in mental bandwidth: in conditions of material scarcity, we lack the psychological resources to engage in a satisfactory manner with our tasks and situations.

The first claim—i.e., that a scarcity mindset leads to attentional shifts—appears to be supported by empirical evidence. Studies by Shah and colleagues (2012) and Zhao and Tomm (2017) show that the perception of scarcity influences attentional allocation: attention is moved to, or “grabbed” by, scarcity-related concerns (see also Lichand and Mani 2020). Shah et al. (2018) reported that lower-income individuals are more likely to think about the costs of their activities, and that such thoughts are both persistent and spontaneous. Furthermore, the studies by Shah et al. (2012) and Zhao and Tomm (2017) also lend support to the claim that an attentional focus on scarcity issues leads to a neglect of other information (but see Shah, Mullainathan, and Shafir 2019 for an attempted replication study and de Bruijn and Antonides 2021 for some methodological concerns). The proposed attentional

effects of a scarcity mindset are consistent with (although not directly supported by) findings showing that children's performance on attention tasks is negatively correlated with their parents' SES (Lengua et al. 2014; Razza, Martin, and Brooks-Gunn 2010, 2012; Ruberry et al. 2016; but also see Bernier et al. 2015).

The second claim of the scarcity approach holds that financial hardship and a scarcity mindset induce thoughts and concerns that preoccupy and tax low-income participants so much so that their available mental bandwidth for other tasks is reduced. In particular, scarcity is thought to affect both cognitive capacity and executive control (Mani et al. 2013, Mullainathan and Shafir 2013, Schilbach, Schofield, and Mullainathan 2016). Support for this hypothesis was initially provided by Mani and colleagues (2013) who in both a lab study and a field experiment offered evidence for the causal effects of poverty on both cognitive capacity and executive control. Previously, Spears (2011) reported corroborating findings. However, ensuing work has delivered mixed results. First, two studies that attempted to replicate the reported effects of poverty on cognitive capacity (specially, fluid intelligence) found no causal connection between the two (Dalton, Nhung, and Rüschenpöhler 2019; Fehr, Fink, and Kelsey 2019). Second, follow-up studies exploring the impact of poverty on cognitive control were inconclusive. Two of them (Fehr, Fink, and Kelsey 2019; Carvalho, Wang, and Meier 2016) failed to find any support for Mani et al.'s claim that poverty affects executive control. Two other studies, however, did find evidence confirming the Mani et al.'s claim that poverty has an effect on cognitive control (Ong, Theseira, and Ng 2019; Lichand and Mani 2020).

Taking these studies into consideration, we can conclude that there is support for the claim that scarcity affects attentional allocation: individuals in scarcity conditions pay more

attention to scarcity-related concerns. However, evidence in support of poverty's effects on mental bandwidth are mixed and thus, at this point, inconclusive. Having said that, it is important to note that monetary worries are not the only threats to cognitive capacity and executive control. Malnutrition (Schofield 2014), sleep deprivation (Lim and Dinges 2010), and chronic pain (Moriarty, McGuire, and Finn 2011)—conditions which are common amongst low SES individuals—also impair cognitive function. Moreover, regardless of the validity of the scarcity approach, it is worth noting that studies involving both adults and young children have found that there is a positive correlational relationship between SES and better cognitive outcomes (e.g., Holmes and Kiernan, 2013; Jenkins et al. 2013; Pina et al., 2014; Razza, Martin, and Brooks-Gunn 2012; Torres, 2013). All in all, extant findings point to the existence of a relationship between poverty and attention (poverty influences the manner in which we allocate attention) and at the same time force us to take seriously the possibility that poverty might even causally affect decision-making and cognitive capacities.

Boredom and Meaning

Just like its connection to attention, boredom's connection to meaning is well documented. On the one hand, lack of perceived meaning has been proposed to be a cause of boredom. For instance, Barbalet (1999) advances a sociological account of boredom that treats boredom as both a signal of perceived meaninglessness and a drive to seek meaning. For Barbalet, perceived meaninglessness appears to be both an antecedent or cause of boredom and an essential part of its experience. This theoretical model of boredom has found empirical support. Chan et al. (2018) reported data confirming that the perception of meaninglessness gives rise to state boredom. In addition, Westgate and Wilson (2018) have

argued that there are two types of boredom, one which arises out of the perception of meaninglessness. On the basis of their experimental work, they concluded that perceived meaninglessness is a sufficient but not a necessary condition of boredom.

Further support for the close relationship between boredom and lack of meaning is found in studies that demonstrate a correlational relationship between the presence of state and trait boredom and perceived meaninglessness. Subjects in a high boredom condition report a greater sense of meaninglessness than subjects in a low boredom condition (Van Tilburg and Igou 2011, 2017a). Moreover, Fahlman et al. (2009) found that participants in a meaningless condition report greater boredom than those in a meaningful condition. Importantly, Fahlman and colleagues found a bidirectional relationship between boredom and perceived lack of meaning in life—life meaning was a significant predictor of changes of boredom across time and vice versa. A study by Anusic, Lucas, and Donnellan (2017) (reported in Chan et al. 2018) found that activities associated with high levels of meaning are associated with low ratings of boredom, negative affect, and loneliness. Lastly, there are experimental studies that strongly suggest that a perception of meaninglessness is an important element of boredom. Van Tilburg and Igou (2012) showed that state boredom can be distinguished from sadness, anger, and frustration on the basis of the fact that only boredom involves thoughts about lack of meaning in one's situation. Van Tilburg and Igou (2017a) extended this finding beyond state boredom to both trait boredom and lay conceptualizations of boredom.

Poverty and Meaning

From a theoretical perspective, the relationship between poverty and perceived meaninglessness is an intimate one. As social beings, we derive meaning from our participation in social activities. Yet, the poor are marginalized and often excluded from such participation. For instance, poor individuals cannot afford to participate in cultural life, are politically disenfranchised, and are even redlined. Previous work has shown that a sense of belonging and anticipated social support are positively associated with meaning in life (Hicks and King 2009; Hicks, Schlegel, and King 2010; Krause 2007; Lambert et al. 2013; Stavrova and Luhmann 2016). Moreover, experiments that have placed individuals in conditions of social exclusion have found that excluded individuals rate their activities as less meaningful than individuals in a control condition (King and Geise 2011; Stillman et al. 2009; Twenge, Catanese, and Baumeister 2003).

The relationship between poverty and perceived meaninglessness is not merely a theoretical one. There is evidence suggesting that poverty is associated with feelings or perceptions of meaninglessness. An analysis of data from the World Values Survey (1980-2008) from 43 countries showed that low income predicted increased feelings of meaninglessness (Haushofer 2013). Corroborating evidence is found in studies showing that the level of independence in activities is positively related with meaning in life (Koren and Lowenstein 2008) and that the inability to fulfill important social roles was shown to be negatively related to a sense of meaningfulness in one's life (Krause 2004) for older adults. Poor individuals will presumably lack independence, power, and control over their lives, and because of the various and severe financial constraints that they face, they will be less likely to be in a position to execute their desired social roles.

Furthermore, both the amount of work meaning and how it is experienced appears to differ depending on one's social class. Work by Hackman and colleagues (Hackman and Lawler 1971; Hackman and Oldham 1975) found that job characteristics such as task significance, task identity, skill variety, autonomy, and feedback from the job, influence one's psychological states, including the experience of meaningfulness. Many low-paying jobs lack characteristics such as autonomy, task significance, and skill variety (Ehrenreich 2010). The absence of these characteristics should thus contribute to a sense of meaninglessness. Allan and colleagues (2013) empirically tested the relationship between work meaning and social class. They found that individuals belonging in higher social classes were more likely to experience work meaning than individuals in lower social classes. Importantly, they also found that volition ("a perceived capacity to make occupational choices") and financial constraints fully mediated the reported relationship between social class and meaning (Allan, Autin, and Duffy 2014, 546).

Lastly, important work on homelessness and boredom reveals a direct link between poverty, lack of meaning, and boredom. Research has shown that homeless individuals experience difficulties in participating in social activities. They are either excluded and are thus forced to spend their time on their own, or they are given the opportunity to participate in some activities while being subjected to strict institutional requirements (Marshall, Lysaght, and Krupa 2017; O'Neill 2017). Researchers have documented how such an exclusion from meaningful engagement results in profound and chronic experience of boredom (Marshall et al. 2019; O'Neill 2017; Marshall, Roy et al., 2020; Marshall, Keogh-Lim et al. 2020). Indeed, a growing body of work makes it clear that homeless individuals experience boredom on account of the social exclusion that they are subjected to *because of*

their social class. This research has shown not just how central and profound boredom becomes in their lives but also how it may threaten their well-being by leading them to a variety of maladaptive behaviors (Marshall et al. 2019; O'Neill 2017; Marshall, Roy et al., 2020; Marshall, Keogh-Lim et al. 2020).

Conclusion: Poverty as the Ground of Boredom

The foregoing considerations provide ample evidence in support of the claim that conditions of material scarcity will be associated with an increase in the experience of boredom. Poverty is related to the experience of constraint and lack of freedom, to attentional shifts and cognitive difficulties, and to perceived meaninglessness. Any of one those conditions on its own would be capable of eliciting the experience of boredom. Together they are bound to completely transform the day-to-day experiences of individuals from lower social classes making them much more susceptible to the experience of boredom. Such a conclusion is in line with published findings that demonstrate a relationship between high rates of boredom and lower SES (Martz et al. 2018; Willging, Quintero, and Lilliott 2014; Jervis et al. 2003).

4. Poverty and the Experience of Boredom

The second proposed mechanism of how poverty interacts with boredom concerns the effects of SES on the subjective experience of boredom. Specifically, the model predicts that individuals in low SES are likely to experience boredom differently than those who are wealthy and more financially secure.

If poverty is related to an increase in the situational and psychological elicitors of boredom, then it will also bring about a change in the character of the experience of boredom. Theoretical and experimental work suggests that individuals are capable of recalling and encoding frequency information regarding their affects (Diener, Sandvik, and Pavot 2009; Hasher and Zacks 1984). Hence, changes in the frequency of the experience of an emotion will lead to noticeable experiential changes. First, from a subjective point of view, there will be an important difference between experiencing boredom sparingly and as response to particular situational features compared to experiencing it frequently or even chronically (Bargdill 2000; Elpidorou 2017). This conclusion is supported by research demonstrating a positive correlational relationship between boredom proneness, on the one hand, and depression, anxiety, anger, and apathy, on the other hand. Second, the experience of boredom is aversive: it is related to feelings of restlessness, tiredness, and frustration, and to a felt inability to find satisfactory engagement (Martin, Sadlo, and Stew 2006; Harris 2000); moreover, boredom's presence correlates with other negative emotions and arises as a part of a network of similarly valenced emotions and affective states (Chin et al. 2017; Martin, Sadlo, and Stew 2006). For individuals in low SES, boredom's negative experience will also be accompanied by feelings of lack of autonomy and constraint, perceived lack of personal control, and perceived meaninglessness. As a result, its negative character will be further intensified. Thus, the more frequent the experience of boredom becomes the more one will experience other negative emotions and be subjected to unfulfilled desires and negative thoughts about one's self and situation.

In addition, the interactionist model predicts that poor individuals' experience of boredom is likely to be colored by the phenomenological experience of stress and affected

by stress's physiological correlates. "Stress" can be used as a general term to refer to the body's physiological response to the disruption of its homeostatic balance (Sapolsky 2005). Those disruptions can come in the form of physical stressors (e.g., pain, hunger) or psychosocial stressors (e.g., the anticipation of an imminent hardship or the perception of a slight against oneself). Although our body is capable of adequately responding to physical and often psychosocial stressors that are short in duration, prolonged or chronic stressors can turn pathogenic (Blanch, Shern, and Staverman 2014; Sapolsky 2005). Research has found that prolonged activation of the body's stress response systems results in several long-term and negative health, social, and even cognitive outcomes (McEwen 2000; Sapolsky 2005; Shanks and Robinson 2013).

Theoretical articulations of the conditions in which individuals are at a high risk to experience chronic stress are suggestive of a strong and close relationship between poverty and chronic stress. Sapolsky (2005) noted that chronic stress is likely to arrive when the following conditions are persistently present in an individual's life: (a) there is the perception of little or no control over one's stressors; (b) there is lack of predictive knowledge about the stressors that one faces; and (c) there is an inability to vent or to find productive outlets for one's frustration experienced during stress. Although Sapolsky names additional conditions that may contribute or give rise to chronic stress, the aforementioned three suffice to show that low SES individuals are at a high risk of experiencing chronic stress. Their jobs and occupations meet condition (a); their lack of resources, unreliable housing, broken appliances, damaged cars, etc., contribute to condition (b); and their exclusion from social participation leads to (c). But it is not just these theoretical reasons that support the claim that conditions of poverty will lead to (or be associated with) chronic stress. Numerous

studies have experimentally confirmed the existence of a relation between the two. Indeed, a recent review has found that over 80% of the studies examining the relationship between poverty and stress found that income is either predictive or partially predictive of physical stress, measured either by individual biomarkers (e.g., cortisol levels) or cumulative biomarker (allostatic load) (Brisson et al. 2020). Moreover, Haushofer and Fehr (2014) summarize and discuss findings revealing a relationship between poverty and both physical and psychological stress. (See also Evans and English 2002 for evidence in support of the existence of a connection between poverty and psychosocial stress.)

In sum, the boredom of low SES individuals will not be just more frequent, but it will also be more severe than that of high SES individuals.

5. Responses to Boredom in Poverty

Limited Resources

At its core, boredom involves a desire for an alternative form of engagement. Consequently, we can alleviate feelings of boredom if we are able to fulfill this desire. Often the need for alternative engagement will be satisfied by switching activities—e.g., we get rid of the boredom of work with a break; we assuage the tedium of being alone by going for a walk or talking to friends. Other times the need for stimulating engagement can be fulfilled not by a change in activities but by changing either behaviorally or cognitively the manner in which we approach our current task. For instance, we might cognitively reappraise a boring lecture as significant and thus motivate ourselves to engage with it (Tze, Klassen, and Daniels 2014).

Or we might make a shift more enjoyable by talking to others while performing it or by turning it into a game (Hamilton, Haier, and Buchsbaum 1984; Elpidorou 2020b).

How we respond to the presence of boredom thus depends on the type of opportunities that are available to us. And the more opportunities for alternative engagement we have, the better we will be able to deal with boredom when it arises. Individuals with jobs that afford them frequent breaks, freedom, autonomy, and a sense of meaningfulness will not only experience boredom less often, but they will be better equipped to deal with it when it arises compared to those whose job includes none of those perks. Students who are grappling with boredom while doing homework will be tempted to give it up and turn their attention to less effortful or more exciting projects to the detriment of their academic success, unless they have someone with them to help them with homework, instill in them the significance of doing homework, or motivate them to persist in their work. Individuals living in dangerous neighborhoods often cannot respond to boredom by going for a walk, socializing with neighbors, or exercising. In general, living on a tight budget restricts what one can do and how one can respond to boredom—there is no time for hobbies, visiting museums, and travelling, and no resources for projects of selfcare. It is evident thus that the fewer financial resources one possesses, the fewer choices one has as to how to respond to boredom. Even though boredom could propel one into activities that are meaningful, creative, or even beneficial for oneself (Elpidorou 2020b), this is less likely to happen for individuals of low SES. The privilege of boredom—the ability to use boredom productively as an opportunity for self-growth—is a privilege that depends on one’s SES.

Psychological Obstacles

Lack of access to alternative engagement makes it harder for individuals of low SES to alleviate their boredom. The same is likely to occur because of known influences of poverty on both perceived response efficacy and self-regulation (Sheehy-Skeffington and Rea 2017).

First, boredom has been related to agency. Specifically, boredom has been characterized as a crisis of agency (Danckert and Eastwood 2020; Eastwood et al. 2012; Eastwood and Gorelik this volume) or as involving a “disordered agency” (Eastwood et al. 2012, 488). What this means is that the experience of boredom involves a difficulty in articulating what the bored subject would like to do (see also Fahlman et al. 2013 and Fenichel 1951). In other words, although bored individuals are well aware that they do not want to be doing what they are currently doing, they are not sure what alternative activity will assuage their boredom. As Eastwood and Gorelik (this volume) make clear, this crisis of agency explains why it is so difficult for bored individuals to alleviate their feelings of boredom on their own. Such a crisis of agency could also be a key mechanism in understanding why the frequent or chronic experience of boredom (as operationalized by boredom proneness) leads to a variety of maladaptive behaviors. In an attempt to escape boredom, one might find recourse to activities that are easy, novel, or exciting (e.g., Bench and Lench 2019), and not to activities that are beneficial to oneself.

Poverty and conditions of material scarcity will contribute to and worsen this disruption of agency characteristic of boredom. A number of cross-sectional studies involving large samples of adults have found a consistent relationship between SES and perceived response efficacy. Perceived response efficacy is the extent to which an individual believes that external and personal events are the product of their behavior instead of the result of circumstances over which they have little or no control. Studies have found that

lower SES is associated both with a weaker belief that external and personal events are the result of personal actions and with a stronger belief that such events are determined by factors that are not within the control of the subjects (Bodovski 2014; Greene and Murdock 2013; Kiviruusu et al. 2013; Prawitz, Kalkowski, and Cohart 2013. See also Hsieh and Huang 2014; Murray and Rodgers 2012). Such findings strongly suggest that, for low SES individuals, the crisis of agency experienced in boredom will be more pronounced and harder to be resolved. Subjects of low SES are thus at an increased risk of being unable to escape boredom or to protect themselves from the temptations that boredom poses.

Second, one's ability to regulate one's behavior will be crucial to how one deals with and responds to the onset of boredom. Self-regulation is a complex psychological process that permits agents to control their goal-oriented behavior. It is, in other words, a capacity to regulate (either maintain or change) one's behavior, responses, and inner states. It is clear that the effective pursuit of goals involves the successful exercise of self-regulation. Such an exercise of self-regulation is thought to involve three components (Baumeister and Heatherton 1996): (a) the acceptance of standards of thought, feelings, and action that are meant to guide behavior; (b) the monitoring of how actual states of the self compare to one's standards; and (c) the ability to control and change one's actual states (behavioral or psychological) when those do not meet the accepted standards. Failures of self-regulation have been implicated in a number of social and personal problems, and conversely, success in self-regulation has been linked to improved well-being (Moffitt et al., 2011; Tangney, Baumeister, and Boone 2004.)

Extant literature suggests a close relationship between boredom and self-regulation—especially the aspect of self-regulation that involves the ability to control one's

impulses and to change one's states to better match one's standards ("self-control"). From a theoretical perspective, it has been proposed that boredom proneness might be a dysfunction of state boredom insofar as it involves an inability to engage properly in goal-oriented behavior (Elpidorou 2018b; see also Struk, Scholer, and Danckert 2016). In addition, models of boredom that emphasize the role of attentional mechanisms can also explain why some individuals have a higher tendency to experience boredom than others by appealing to self-regulatory failures (Struk, Scholer, and Danckert 2016). Specifically, a difficulty to regulate attention in a way that yields satisfactory engagement could lead to an increase in the experience of boredom. Finally, there are empirical findings that both directly and indirectly reveal a connection between self-regulation and boredom. On the one hand, there is a reported association between higher level of self-control and lower levels of boredom proneness (Isacescu and Danckert 2018; Isacescu, Struk, and Danckert 2017; see also Struk, Scholer, and Danckert 2016). On the other hand, boredom proneness has been linked to behaviors that are indicative of poor self-regulation and self-control (e.g., Mercer-Lynn et al. 2013).

The connection between boredom and self-regulation entails that our responses to boredom will be affected by our ability to regulate and control our selves. In the case of poverty, we have good reasons to think that poverty will affect self-regulation. Studies involving young children show that their self-regulatory abilities are adversely affected by poverty (Noble et al. 2005; Raver, Blair, and Willoughby 2013; Rhoades et al. 2011) and that improvement in SES (i.e., moving to a better neighborhood) leads to an improvement in self-regulation (Roy, McCoy, and Raver 2014) (for additional discussion, see Hackman and Farah 2009). SES and self-regulatory abilities have also been found to be positively

correlated both in teenagers (Freeney and O’Connell 2010; Vettenburg et al. 2013) and in adults. Regarding adults, studies show that those lower in SES report a lesser ability to resist impulses and a greater tendency to procrastinate than those higher in SES (Chow 2011; Johnson, Richeson, and Finkel 2011). Such findings demonstrate that one’s SES, by influencing self-regulation, can place one in a disadvantageous position when dealing with boredom. Obstacles to self-regulation will make it harder for individuals to respond to boredom in productive ways and easier for them to either remain in boredom (Struk, Scholer, and Danckert 2016) or to give in to maladaptive responses.

6. Conclusion

In this essay, I advanced a model that attempts to explicate the ways in which poverty interacts with boredom. Specifically, I have argued that it is likely that poverty makes boredom more frequent, changes its experience, and affects the ways that we can respond to it. Thus, poverty does not only invite boredom; it can also corrode our ability to productively respond to it. Poverty restricts our responses to boredom, takes a toll on our self-regulatory abilities, and may even affect mental and cognitive functioning. In doing so, it has the capacity to derail our coping mechanisms and to even further solidify our vulnerability to boredom.

The model that I offered is theoretical: it synthesizes literature on poverty and boredom in order to suggest ways as to how the two interact. It is also speculative and thus in need of empirical confirmation or disconfirmation. All the same, the proposed model shows that accounts of boredom ought to take SES seriously—both as a potential contributor to boredom and as a formidable obstacle to our ability to respond to boredom efficiently and

beneficially. It also demonstrates, I believe, that boredom is a serious matter even within the context of poverty. Although boredom is a potential threat to everyone's well-being, it poses an especially grave danger to individuals of low SES. In poverty, boredom can become cruel and unjust—a scourge that afflicts most severely those who are the least capable of dealing with it.

References

- Adler, Nancy E., Elissa S. Epel, Grace Castellazzo, and Jeannette R. Ickovics. 2000. "Relationship of Subjective and Objective Social Status with Psychological and Physiological Functioning: Preliminary Data in Healthy, White Women." *Health Psychology*, 19, no. 6: 586–92. <https://doi.org/10.1037/0278-6133.19.6.586>.
- Adler, Nancy E., Thomas Boyce, Margaret A. Chesney, Sheldon Cohen, Susan Folkman, Robert L. Kahn, and S. Leonard Syme. 1994. "Socioeconomic Status and Health: The Challenge of the Gradient." *American Psychologist* 49, no. 1: 15-24. <https://doi.org/10.1037/0003-066X.49.1.15>.
- Ahmed, S. M. S. 1990. "Psychometric Properties of the Boredom Proneness Scale." *Perceptual and Motor Skills* 71, no. 3: 963-66. <https://doi.org/10.2466/pms.1990.71.3.963>.
- Allan, Blake A., Kelsey L. Autin, and Ryan D. Duffy. 2014. "Examining Social Class and Work Meaning Within the Psychology of Working Framework." *Journal of Career Assessment* 22, no. 4: 543-61. <https://doi.org/10.1177/1069072713514811>.
- Anusic, Ivana, Richard E. Lucas, and M. Brent Donnellan. 2017. "The Validity of the Day Reconstruction Method in the German Socio-Economic Panel Study." *Social Indicators Research* 130, no. 1: 213-32. <https://doi.org/10.1007/s11205-015-1172-6>.
- Banerjee, Abhijit V., and Esther Duflo. 2007. "The Economic Lives of the Poor." *Journal of Economic Perspectives* 21, no. 1: 141-68. <https://doi.org/10.1257/jep.21.1.141>.
- Barbalet, Jack M. 1999. "Boredom and Social Meaning." *The British Journal of Sociology* 50, no. 4: 631-46. <https://doi.org/10.1080/000713199358572>.
- Bargdill, Richard. 2000. "The Study of Life Boredom." *Journal of Phenomenological Psychology* 31, no. 2: 188-219. <https://doi.org/10.1163/15691620051090979>.
- Barmack, Joseph E. 1938. "The Effect of Benzedrine Sulfate (benzyl methyl carbinamine) Upon the Report of Boredom and Other Factors." *The Journal of Psychology* 5, no. 1: 125-33. <https://doi.org/10.1080/00223980.1938.9917557>.

- Baumeister, Roy F., and Todd F. Heatherton. 1996. "Self-regulation Failure: An Overview." *Psychological inquiry* 7, no. 1: 1-15. <https://www.jstor.org/stable/1449145>.
- Bench, Shane W., and Heather C. Lench. 2013. "On the Function of Boredom." *Behavioral Sciences* 3, no. 3: 459-72. <https://doi.org/10.3390/bs3030459>.
- Bench, Shane W., and Heather C. Lench. 2019. "Boredom as a Seeking State: Boredom Prompts the Pursuit of Novel (Even Negative) Experiences." *Emotion* 19, no. 2: 242-54. <https://doi.org/10.1037/emo0000433>.
- Berlyne, Daniel E. 1960. *Conflict, Arousal and Curiosity*. New York, NY: McGraw-Hill.
- Bernier, Annie, Miriam H. Beauchamp, Stephanie M. Carlson, and Gabrielle Lalonde. 2015. "A Secure Base from Which to Regulate: Attachment Security in Toddlerhood as a Predictor of Executive Functioning at School Entry." *Developmental psychology* 51, no. 9: 1177-89.
- Bernstein, Basil. 1971. *Class, Codes and Control* (Vol. 1). London: Routledge & Kegan Paul.
- Blalock, Garrick, David R. Just, and Daniel H. Simon. 2007. "Hitting the Jackpot or Hitting the Skids: Entertainment, Poverty, and the Demand for State Lotteries." *American Journal of Economics and Sociology* 66, no. 3: 545-70. <https://doi.org/10.1111/j.1536-7150.2007.00526.x>.
- Blaszczynski, Alex, Neil McConaghy, and Anna Frankova. 1990. "Boredom Proneness in Pathological Gambling." *Psychological Reports* 67, no. 1: 35-42. <https://doi.org/10.2466/pr0.1990.67.1.35>.
- Bodovski, Katerina. 2014. "Adolescents' Emerging Habitus: The Role of Early Parental Expectations and Practices." *British Journal of Sociology of Education* 35, no. 3: 389-412. <https://doi.org/10.1080/01425692.2013.776932>.
- Bourdieu, Pierre. 1985. "The Social Space and the Genesis of Groups." *Theory and society* 14, no. 6: 723-44. <https://doi.org/10.1007/BF00174048>.
- Brissett, Dennis, and Robert P. Snow. 1993. "Boredom: Where the Future Isn't." *Symbolic Interaction* 16, no. 3: 237-56. <https://doi.org/10.1525/si.1993.16.3.237>.

- Brisson, Daniel, Sarah McCune, Jennifer H. Wilson, Stephanie Rachel Speer, Julie S. McCrae, and Katherine Hoops Calhoun. 2020. "A Systematic Review of the Association Between Poverty and Biomarkers of Toxic Stress." *Journal of Evidence-Based Social Work* 17, no. 6: 696-713. <https://doi.org/10.1080/26408066.2020.1769786>.
- Caldwell, Linda L., Edward A. Smith, and Ellen Weissinger. 1992. "The Relationship of Leisure Activities and Perceived Health of College Students." *Loisir et société/Society and Leisure* 15, no. 2: 545-56. <https://doi.org/10.1080/07053436.1992.10715431>.
- Caldwell, Linda L., Nancy Darling, Laura L. Payne, and Bonnie Dowdy. 1999. "'Why Are You Bored?': An Examination of Psychological and Social Control Causes of Boredom Among Adolescents." *Journal of Leisure Research* 31, no. 2: 103-21. <https://doi.org/10.1080/00222216.1999.11949853>.
- Carriere, Jonathan SA, J. Allan Cheyne, and Daniel Smilek. 2008. "Everyday Attention Lapses and Memory Failures: The Affective Consequences of Mindlessness." *Consciousness and Cognition* 17, no. 3: 835-47. <https://doi.org/10.1016/j.concog.2007.04.008>.
- Carvalho, Leandro S., Stephan Meier, and Stephanie W. Wang. 2016. "Poverty and Economic Decision-Making: Evidence from Changes in Financial Resources at Payday." *American Economic Review* 106, no. 2: 260-84. <https://www.jstor.org/stable/43821452>.
- Chan, Christian S., Wijnand AP van Tilburg, Eric R. Igou, Cyanea YS Poon, Katy YY Tam, Venus UT Wong, and S. K. Cheung. 2018. "Situational Meaninglessness and State Boredom: Cross-Sectional and Experience-Sampling Findings." *Motivation and Emotion* 42, no. 4: 555-65. <https://doi.org/10.1007/s11031-018-9693-3>.
- Cheyne, James Allan, Jonathan SA Carriere, and Daniel Smilek. 2006. "Absent-Mindedness: Lapses of Conscious Awareness and Everyday Cognitive Failures." *Consciousness and Cognition* 15, no. 3: 578-92. <https://doi.org/10.1016/j.concog.2005.11.009>.

- Chin, Alycia, Amanda Markey, Saurabh Bhargava, Karim S. Kassam, and George Loewenstein. 2017. "Bored in the USA: Experience Sampling and Boredom in Everyday Life." *Emotion* 17, no. 2: 359-68. <https://doi.org/10.1037/emo0000232>.
- Chow, Henry PH. 2011. "Procrastination Among Undergraduate Students: Effects of Emotional Intelligence, School Life, Self-Evaluation, and Self-Efficacy." *Alberta Journal of Educational Research* 57, no. 2: 234-40.
- Cohen, Sheldon, Cuneyt M. Alper, William J. Doyle, Nancy Adler, John J. Treanor, and Ronald B. Turner. 2008. "Objective and Subjective Socioeconomic Status and Susceptibility to the Common Cold." *Health Psychology*, 27, no.2: 268–74. <https://doi.org/10.1037/0278-6133.27.2.268>.
- Crenshaw, Kimberlé Williams 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics." *University of Chicago Legal Forum* 1, no. 8: 139-67. <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>.
- Crenshaw, Kimberlé W. 1991. "Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color." *Stanford Law Review* 43, no. 6: 1241–99.
- Csikszentmihalyi, Mihaly. 1975. *Beyond Boredom and Anxiety*. San Francisco, CA: Jossey-Bass.
- Dahlen, Eric R., Ryan C. Martin, Katie Ragan, and Myndi M. Kuhlman. 2004. "Boredom Proneness in Anger and Aggression: Effects of Impulsiveness and Sensation Seeking." *Personality and Individual Differences* 37, no. 8: 1615-27. <https://doi.org/10.1016/j.paid.2004.02.016>.
- Dahlen, Eric R., Ryan C. Martin, Katie Ragan, and Myndi M. Kuhlman. 2005. "Driving Anger, Sensation Seeking, Impulsiveness, and Boredom Proneness in the Prediction of Unsafe Driving." *Accident Analysis & Prevention* 37, no. 2: 341-48. <https://doi.org/10.1016/j.aap.2004.10.006>.
- Dalton, Patricio S., Nguyen Nhung, and Julius Rüschepöhler. 2020. "Worries of the Poor: The Impact of Financial Burden on the Risk Attitudes of Micro-Entrepreneurs." *Journal of Economic Psychology* 79: 102198. <https://doi.org/10.1016/j.joep.2019.102198>.

- Damrad-Frye, Robin, and James D. Laird. 1989. "The Experience of Boredom: The Role of the Self-Perception of Attention." *Journal of Personality and Social Psychology* 57, no. 2: 315-20.
- Danckert, James, and Colleen Merrifield. 2018. "Boredom, Sustained Attention and the Default Mode Network." *Experimental Brain Research* 236, no. 9: 2507-18. <https://doi.org/10.1007/s00221-016-4617-5>.
- Danckert, James, and John Eastwood D. 2020. *Out of My Skull: The Psychology of Boredom*. Cambridge, MA: Harvard University Press.
- Daschmann, Elena C., Thomas Goetz, and Robert H. Stupnisky. 2011. "Testing the Predictors of Boredom at School: Development and Validation of the Precursors to Boredom Scales." *British Journal of Educational Psychology* 81, no. 3: 421-40. <https://doi.org/10.1348/000709910X526038>.
- de Bruijn, Ernst-Jan, and Gerrit Antonides. 2021. "Poverty and Economic Decision Making: A Review of Scarcity Theory." *Theory and Decision*: 1-33. <https://doi.org/10.1007/s11238-021-09802-7>.
- De Chenne, Timothy K., and Andrea J. Moody. 1988. "Boredom: Theory and Therapy." *The Psychotherapy Patient* 3, no. 3-4: 17-29. https://doi.org/10.1300/J358v03n03_03.
- Dean, Emma Boswell, Frank Schilbach, and Heather Schofield. 2017. "Poverty and Cognitive Function." In *The Economics of Poverty Traps*, edited by Christopher B. Barrett, Michael Carter, Jean-Paul Chavas, and Michael R. Carter, 57-118. Chicago: University of Chicago Press.
- Diener, Ed, and Eunkook Suh. 1997. "Measuring Quality of Life: Economic, Social, and Subjective Indicators." *Social Indicators Research* 40, no. 1: 189-216. <https://doi.org/10.1023/A:1006859511756>.
- Diener, Ed, Ed Sandvik, and William Pavot. 2009. "Happiness is the Frequency, Not the Intensity, of Positive Versus Negative Affect." In *Assessing Well-Being*, edited by Ed Diener, 213-31. Dordrecht: Springer.

- Dockree, Paul M., Mark A. Bellgrove, Fiadhna M. O'Keeffe, Pauline Moloney, Lina Aimola, Simone Carton, and Ian H. Robertson. 2006. "Sustained Attention in Traumatic Brain Injury (TBI) and Healthy Controls: Enhanced Sensitivity with Dual-Task Load." *Experimental Brain Research* 168, no. 1-2: 218-29. <https://doi.org/10.1007/s00221-005-0079-x>.
- Eastwood, John D., Alexandra Frischen, Mark J. Fenske, and Daniel Smilek. 2012. "The Unengaged Mind. Defining Boredom in Terms of Attention." *Perspectives on Psychological Science* 7, no. 5: 482-95. <https://doi.org/10.1177/1745691612456044>.
- Ehrenreich, Barbara. 2010. *Nickel and Dimed: On (Not) Getting by in America*. New York: Metropolitan Books.
- Elias, Norbert. 1978. *The Civilizing Process: The History of Manners*. New York, NY: Urizen Books.
- Elpidorou, Andreas. 2014. "The Bright Side of Boredom." *Frontiers in psychology* 5: 1245. <https://doi.org/10.3389/fpsyg.2014.01245>.
- Elpidorou, Andreas. 2017. "The Moral Dimensions of Boredom: A Call for Research." *Review of General Psychology* 21, no. 1: 30-48. <https://doi.org/10.1037/gpr0000098>.
- Elpidorou, Andreas. 2018a. "The Bored Mind is a Guiding Mind: Toward a Regulatory Theory of Boredom." *Phenomenology and the Cognitive Sciences* 17, no. 3: 455-84. <https://doi.org/10.1007/s11097-017-9515-1>.
- Elpidorou, Andreas. 2018b. "The Good of Boredom." *Philosophical Psychology* 31, no. 3: 323-51. <https://doi.org/10.1080/09515089.2017.1346240>.
- Elpidorou, Andreas. 2020a. "Is Boredom One or Many? A Functional Solution to the Problem of Heterogeneity." *Mind & Language*. Early online access. <https://doi.org/10.1111/mila.12282>.
- Elpidorou, Andreas. 2020b. *Propelled: How Boredom, Frustration, and Anticipation Lead Us to the Good Life*. New York: Oxford University Press. <https://doi.org/10.1093/oso/9780190912963.001.0001>.

- Evans, Gary W., and Kimberly English. 2002. "The Environment of Poverty: Multiple Stressor Exposure, Psychophysiological Stress, and Socioemotional adjustment." *Child development* 73, no. 4: 1238-48. <https://doi.org/10.1111/1467-8624.00469>.
- Fahlman, Shelley A., Kimberley B. Mercer-Lynn, David B. Flora, and John D. Eastwood. 2013. "Development and Validation of the Multidimensional State Boredom Scale." *Assessment* 20, no. 1: 68-85. <https://doi.org/10.1177/1073191111421303>.
- Fahlman, Shelley A., Kimberley B. Mercer, Peter Gaskovski, Adrienne E. Eastwood, and John D. Eastwood. 2009. "Does a Lack of Life Meaning Cause Boredom? Results from Psychometric, Longitudinal, and Experimental Analyses." *Journal of Social and Clinical Psychology* 28, no. 3: 307-40. <https://doi.org/10.1521/jscp.2009.28.3.307>.
- Farmer, Richard, and Norman D. Sundberg. 1986. "Boredom Proneness--the Development and Correlates of a New Scale." *Journal of Personality Assessment* 50, no. 1: 4-17. https://doi.org/10.1207/s15327752jpa5001_2.
- Fehr, Dietmar, Günther Fink, and Kelsey Jack. 2019. *Poverty, Seasonal Scarcity and Exchange Asymmetries*. No. w26357. National Bureau of Economic Research. www.nber.org/papers/w26357.
- Fenichel, Otto. 1951. "On the Psychology of Boredom." In *Organization and Pathology of Thought: Selected Sources*, edited by David Rapaport, 349-61. New York, NY: Columbia University Press.
- Fisher, C. D. 1993. "Boredom at Work: A Neglected Concept." *Human Relations*, 46: 395-417. <https://doi.org/10.1177/001872679304600305>.
- Fiske, Susan T. and Hazel Rose Markus. 2012. "Introduction: A Wide-Angle Lens on the Psychology of Social Class." In *Facing Social Class: How Societal Rank Influences Interaction*, edited by Susan T. Fiske and Hazel Rose Markus, 1-11. New York: Russell Sage Foundation.
- Freeney, Yseult, and Michael O'Connell. 2010. "Wait for It: Delay-Discounting and Academic Performance Among an Irish Adolescent Sample." *Learning and Individual Differences* 20, no. 3: 231-36. <https://doi.org/10.1016/j.lindif.2009.12.009>.

- Gallo, Linda C., and Karen A. Matthews. 2003. "Understanding the Association Between Socioeconomic Status and Physical Health: Do Negative Emotions Play a Role?." *Psychological Bulletin* 129, no. 1: 10-51. <https://doi.org/10.1037/0033-2909.129.1.10>.
- Gana, Kamel, and Malek Akremi. 1998. "L'échelle de Disposition à l'Ennui (EDE): Adaptation française et validation du Boredom Proneness Scale (BP)." *L'année Psychologique* 98, no. 3: 429-50. <https://doi.org/10.3406/psy.1998.28576>.
- Gana, Kamel, Guillaume Broc, and Nathalie Bailly. 2019. "Does the Boredom Proneness Scale Capture Traitness of Boredom? Results from a Six-Year Longitudinal Trait-State-Occasion Model." *Personality and Individual Differences* 139: 247-53. <https://doi.org/10.1016/j.paid.2018.11.030>.
- Geiwitz, P. James. 1966. "Structure of Boredom." *Journal of Personality and Social Psychology* 3, no. 5: 592-600. <https://doi.org/10.1037/h0023202>.
- Goetz, Thomas, Anne C. Frenzel, Nathan C. Hall, Ulrike E. Nett, Reinhard Pekrun, and Anastasiya A. Lipnevich. 2014. "Types of Boredom: An Experience Sampling Approach." *Motivation and Emotion* 38, no. 3: 401-19. <https://doi.org/10.1007/s11031-013-9385-y>.
- Goldberg, Yael K., John D. Eastwood, Jennifer LaGuardia, and James Danckert. 2011. "Boredom: An Emotional Experience Distinct from Apathy, Anhedonia, or Depression." *Journal of Social and Clinical Psychology* 30, no. 6: 647-66. <https://doi.org/10.1521/jscp.2011.30.6.647>.
- Goldberg, Yael, and James Danckert. 2013. "Traumatic Brain Injury, Boredom and Depression." *Behavioral Sciences* 3, no. 3: 434-44. <https://doi.org/10.3390/bs3030434>.
- Goodman, Elizabeth, Nancy E. Adler, Ichiro Kawachi, A. Lindsay Frazier, Bin Huang, and Graham A. Colditz. 2001. "Adolescents' Perceptions of Social Status: Development and Evaluation of a New Indicator." *Pediatrics* 108, no. 2: e31-e31. <https://doi.org/10.1542/peds.108.2.e31>.
- Gordon, Anne, Ross Wilkinson, Anne McGown, and Slavica Jovanoska. 1997. "The Psychometric Properties of the Boredom Proneness Scale: An Examination of its Validity." *Psychological Studies* 42, no. 2-3: 85-97.

- Greene, Carolyn A., and Karla Klein Murdock. 2013. "Multidimensional Control Beliefs, Socioeconomic Status, and Health." *American Journal of Health Behavior* 37, no. 2: 227-37. <https://doi.org/10.5993/AJHB.37.2.10>.
- Greenson, Ralph R. 1953. "On Boredom." *Journal of the American Psychoanalytic Association* 1: 7-21. <https://doi.org/10.1177/000306515300100102>.
- Hackman, Daniel A., and Martha J. Farah. 2009. "Socioeconomic Status and the Developing Brain." *Trends in Cognitive Sciences* 13, no. 2: 65-73. <https://doi.org/10.1177/000306515300100102>.
- Hackman, J. Richard, and Greg R. Oldham. 1975. "Development of the Job Diagnostic Survey." *Journal of Applied psychology* 60, no. 2: 159-70. <https://doi.org/10.1037/h0076546>.
- Hackman, J. Richard, and Greg R. Oldham. 1976. "Motivation Through the Design of Work: Test of a Theory." *Organizational Behavior and Human Performance* 16, no. 2: 250-79. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7).
- Haisley, Emily, Romel Mostafa, and George Loewenstein. 2008. "Myopic Risk-Seeking: The Impact of Narrow Decision Bracketing on Lottery Play." *Journal of Risk and Uncertainty* 37, no. 1: 57-75. <https://doi.org/10.1007/s11166-008-9041-1>.
- Hamilton, Jean A. 1981. "Attention, Personality, and the Self-Regulation of Mood: Absorbing Interest and Boredom." *Progress in Experimental Personality Research*, 10, 281-315.
- Hamilton, Jean A., Richard J. Haier, and Monte S. Buchsbaum. 1984. "Intrinsic Enjoyment and Boredom Coping Scales: Validation with Personality, Evoked Potential and Attention Measures." *Personality and Individual Differences* 5, no. 2: 183-93. [https://doi.org/10.1016/0191-8869\(84\)90050-3](https://doi.org/10.1016/0191-8869(84)90050-3).
- Harris, Mary B. 2000. "Correlates and Characteristics of Boredom Proneness and Boredom." *Journal of Applied Social Psychology* 30, no. 3: 576-98. <https://doi.org/10.1111/j.1559-1816.2000.tb02497.x>.

- Hasher, Lynn, and Rose T. Zacks. 1984. "Automatic Processing of Fundamental Information: The Case of Frequency of Occurrence." *American psychologist* 39, no. 12: 1372-88. <https://doi.org/10.1037/0003-066X.39.12.1372>.
- Haushofer, Johannes, and Ernst Fehr. 2014. "On the Psychology of Poverty." *Science* 344, no. 6186: 862-67. <https://doi.org/10.1126/science.1232491>.
- Haushofer, Johannes. 2013. "The Psychology of Poverty: Evidence from 43 Countries." Princeton, NJ, Princeton University.
- Hicks, Joshua A., and Laura A. King. 2009. "Positive Mood and Social Relatedness as Information About Meaning in Life." *The Journal of Positive Psychology* 4, no. 6: 471-82. <https://doi.org/10.1080/17439760903271108>.
- Hicks, Joshua A., Rebecca J. Schlegel, and Laura A. King. 2010. "Social Threats, Happiness, and the Dynamics of Meaning in Life Judgments." *Personality and Social Psychology Bulletin* 36, no. 10: 1305-17. <https://doi.org/10.1177/0146167210381650>.
- Hill, Austin Bradford, and Rachel E. Perkins. 1985. "Towards a Model of Boredom." *British Journal of Psychology* 76, no. 2: 235-40. <https://doi.org/10.1111/j.2044-8295.1985.tb01947.x>.
- Holmes, John, and Kathleen Kiernan. 2013. "Persistent Poverty and Children's Development in the Early Years of Childhood." *Policy & Politics* 41, no. 1: 19-42. <https://doi.org/10.1332/030557312X645810>.
- Howell, Ryan T., and Colleen J. Howell. 2008. "The Relation of Economic Status to Subjective Well-Being in Developing Countries: A Meta-Analysis." *Psychological Bulletin* 134, no. 4: 536-60. <https://doi.org/10.1037/0033-2909.134.4.536>.
- Hsieh, Hui-Hsien, and Jie-Tsuen Huang. 2014. "The Effects of Socioeconomic Status and Proactive Personality on Career Decision Self-Efficacy." *The Career Development Quarterly* 62, no. 1: 29-43. <https://doi.org/10.1002/j.2161-0045.2014.00068.x>.

- Hunter, Andrew, and John D. Eastwood. 2018. "Does state boredom cause failures of attention? Examining the Relations Between Trait Boredom, State Boredom, and Sustained Attention." *Experimental Brain Research* 236, no. 9: 2483-92. <https://doi.org/10.1007/s00221-016-4749-7>.
- Isacescu, Julia, and James Danckert. 2018. "Exploring the Relationship Between Boredom Proneness and Self-Control in Traumatic Brain Injury (TBI)." *Experimental Brain Research* 236, no. 9: 2493-505. <https://doi.org/10.1007/s00221-016-4674-9>.
- Isacescu, Julia, Andriy Anatolievich Struk, and James Danckert. 2017. "Cognitive and Affective Predictors of Boredom Proneness." *Cognition and Emotion* 31, no. 8: 1741-48. <https://doi.org/10.1080/02699931.2016.1259995>.
- Iso-Ahola, Seppo E., and Ellen Weissinger. 1990. "Perceptions of Boredom in Leisure: Conceptualization, Reliability and Validity of the Leisure Boredom Scale." *Journal of Leisure Research* 22, no. 1: 1-17.
- Jenkins, Jade V. Marcus, Donald P. Woolley, Stephen R. Hooper, and Michael D. De Bellis. 2013. "Direct and Indirect Effects of Brain Volume, Socioeconomic Status and Family Stress on Child IQ." *Journal of Child and Adolescent Behavior* 1, no. 2: 1000107. <https://doi.org/10.4172/2375-4494.1000107>.
- Jervis, Lori L., Paul Spicer, and Spero M. Manson. 2003. "Boredom, 'Trouble,' and the Realities of Postcolonial Reservation Life." *Ethos* 31, no. 1: 38-58. <https://doi.org/10.1525/eth.2003.31.1.38>.
- Johnson, Sarah E., Jennifer A. Richeson, and Eli J. Finkel. 2011. "Middle Class and Marginal? Socioeconomic Status, Stigma, and Self-Regulation at an Elite University" *Journal of Personality and Social Psychology* 100, no. 5: 838-52. <https://doi.org/10.1037/a0021956>.
- Johnson, Wendy, and Robert F. Krueger. 2005. "Higher Perceived Life Control Decreases Genetic Variance in Physical Health: Evidence from a National Twin Study." *Journal of Personality and Social Psychology* 88, no. 1: 165-73. <https://doi.org/10.1037/0022-3514.88.1.165>.

- Kass, Steven J., Kristen E. Beede, and Stephen J. Vodanovich. 2010. "Self-Report Measures of Distractibility as Correlates of Simulated Driving Performance." *Accident Analysis & Prevention* 42, no. 3: 874-80. <https://doi.org/10.1016/j.aap.2009.04.012>.
- King, Laura A., and Aaron C. Geise. 2011. "Being Forgotten: Implications for the Experience of Meaning in Life." *The Journal of Social Psychology* 151, no. 6: 696-709. <https://doi.org/10.1080/00224545.2010.522620>.
- Kiviruusu, Olli, Taina Huurre, Ari Haukkala, and Hillevi Aro. 2013. "Changes in Psychological Resources Moderate the Effect of Socioeconomic Status on Distress Symptoms: A 10-year Follow-Up Among Young Adults." *Health Psychology* 32, no. 6: 627-36. <https://doi.org/10.1037/a0029291>.
- Koren, Chaya, and Ariela Lowenstein. 2008. "Late-Life Widowhood and Meaning in Life." *Ageing International* 32, no. 2: 140-55. <https://doi.org/10.1007/s12126-008-9008-1>.
- Kraus, Michael W., Paul K. Piff, Rodolfo Mendoza-Denton, Michelle L. Rheinschmidt, and Dacher Keltner. 2012. "Social Class, Solipsism, and Contextualism: How the Rich Are Different from the Poor." *Psychological Review* 119, no. 3: 546-72. <https://doi.org/10.1037/a0028756>.
- Krause, Neal. 2004. "Stressors Arising in Highly Valued Roles, Meaning in Life, and the Physical Health Status of Older Adults." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 59, no. 5: S287-S297. <https://doi.org/10.1093/geronb/59.5.S287>.
- Krause, Neal. 2007. "Longitudinal Study of Social Support and Meaning in Life." *Psychology and Aging* 22, no. 3: 456-69.
- Kreutzer, Jeffrey S., Ronald T. Seel, and Eugene Gourley. 2001. "The Prevalence and Symptom Rates of Depression After Traumatic Brain Injury: A Comprehensive Examination." *Brain injury* 15, no. 7: 563-76. <https://doi.org/10.1080/02699050116884>.
- Kurzban, Robert, Angela Duckworth, Joseph W. Kable, and Justus Myers. 2013. "An Opportunity Cost Model of Subjective Effort and Task Performance." *The Behavioral and Brain Sciences* 36, no. 6: 661-79. <https://doi.org/10.1017/S0140525X12003196>.

- Lachman, Margie E., and Suzanne L. Weaver. 1998. "The Sense of Control as a Moderator of Social Class Differences in Health and Well-Being." *Journal of Personality and Social Psychology* 74, no. 3: 763-73.
- Lambert, Nathaniel M., Tyler F. Stillman, Roy F. Baumeister, Frank D. Fincham, Joshua A. Hicks, and Steven M. Graham. 2010. "Family as a Salient Source of Meaning in Young Adulthood." *The Journal of Positive Psychology* 5, no. 5: 367-76. <https://doi.org/10.1080/17439760.2010.516616>.
- Lareau, Annette. 2011. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley: University of California Press.
- Larson, Reed W., and Maryse H. Richards. 1991. "Boredom in the Middle School Years: Blaming Schools Versus Blaming Students." *American Journal of Education* 99, no. 4, 418-443. <https://doi.org/10.1086/443992>.
- Leary, Mark R., Patricia A. Rogers, Robert W. Canfield, and Celine Coe. 1986. "Boredom in Interpersonal Encounters: Antecedents and Social Implications." *Journal of Personality and Social Psychology* 51, no. 5: 968-75. <https://doi.org/10.1037/0022-3514.51.5.968>.
- Lengua, Liliana J., Lyndsey Moran, Maureen Zalewski, Erika Ruberry, Cara Kiff, and Stephanie Thompson. 2015. "Relations of Growth in Effortful Control to Family Income, Cumulative Risk, and Adjustment in Preschool-Age Children." *Journal of Abnormal Child Psychology* 43, no. 4: 705-20. <https://doi.org/10.1007/s10802-014-9941-2>.
- Leong, Frederick TL, and Gregory R. Schneller. 1993. "Boredom Proneness: Temperamental and Cognitive Components." *Personality and Individual Differences* 14, no. 1: 233-39. [https://doi.org/10.1016/0191-8869\(93\)90193-7](https://doi.org/10.1016/0191-8869(93)90193-7).
- LePera, Nicole. 2011. "Relationships Between Boredom Proneness, Mindfulness, Anxiety, Depression, and Substance Use." *The New School Psychology Bulletin* 8, no. 2: 15-25.
- Lichand, Guilherme; Mani, Anandi 2020. "Cognitive Droughts, Working Paper, No. 341." Zurich: University of Zurich, Department of Economics. <http://dx.doi.org/10.5167/uzh-185364>.

- Lim, Julian, and David F. Dinges. 2010. "A Meta-Analysis of the Impact of Short-Term Sleep Deprivation on Cognitive Variables." *Psychological Bulletin* 136, no. 3: 375-89. <https://doi.org/10.1037/a0018883>.
- Maddi, Salvatore R. 1970. "The Search for Meaning." In *The Nebraska Symposium on Motivation*, edited by William J. Arnold and Monte M. Page, 134–83. Lincoln: University of Nebraska Press.
- Malkovsky, Ela, Colleen Merrifield, Yael Goldberg, and James Danckert. 2012. "Exploring the Relationship Between Boredom and Sustained Attention." *Experimental Brain Research* 221, no. 1: 59-67. <https://doi.org/10.1007/s00221-012-3147-z>.
- Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao. 2013. "Poverty Impedes Cognitive Function." *Science* 341, no. 6149: 976-80. <https://doi.org/10.1126/science.1238041>.
- Marshall, Carrie Anne, Daniel Keogh-Lim, Michelle Koop, Skye Barbic, and Rebecca Gewurtz. 2020. "Meaningful Activity and Boredom in the Transition from Homelessness: Two Narratives." *Canadian Journal of Occupational Therapy* 87, no. 4: 253-64. <https://doi.org/10.1177/0008417420941782>.
- Marshall, Carrie Anne, Laurence Roy, Alyssa Becker, Melanie Nguyen, Skye Barbic, Carina Tjörnstrand, Rebecca Gewurtz, and Sarah Wickett. 2020. "Boredom and Homelessness: A Scoping Review." *Journal of Occupational Science* 27, no. 1: 107-24. <https://doi.org/10.1080/14427591.2019.1595095>.
- Marshall, Carrie Anne, Lisa Davidson, Andrea Li, Rebecca Gewurtz, Laurence Roy, Skye Barbic, Bonnie Kirsh, and Rosemary Lysaght. 2019. "Boredom and Meaningful Activity in Adults Experiencing Homelessness: A mixed-methods study." *Canadian Journal of Occupational Therapy* 86, no. 5: 357-70. <https://doi.org/10.1177/0008417419833402>.
- Marshall, Carrie Anne, Rosemary Lysaght, and Terry Krupa. 2017. "The Experience of Occupational Engagement of Chronically Homeless Persons in a Mid-Sized Urban Context." *Journal of Occupational Science* 24, no. 2: 165-80. <https://doi.org/10.1080/14427591.2016.1277548>.

- Martin, Marion, Gaynor Sadlo, and Graham Stew. 2006. "The Phenomenon of Boredom." *Qualitative Research in Psychology* 3, no. 3: 193-211. <https://doi.org/10.1191/1478088706qrp066oa>.
- Martz, Meghan E., John E. Schulenberg, Megan E. Patrick, and Deborah D. Kloska. 2018. "I Am So Bored!': Prevalence Rates and Sociodemographic and Contextual Correlates of High Boredom Among American Adolescents." *Youth & Society* 50, no. 5: 688-710. <https://doi.org/10.1177/0044118X15626624>.
- Mathiak, Krystyna Anna, Martin Klasen, Mikhail Zvyagintsev, René Weber, and Klaus Mathiak. 2013. "Neural Networks Underlying Affective States in a Multimodal Virtual Environment: Contributions to Boredom." *Frontiers in Human Neuroscience* 7, 820. <https://doi.org/10.3389/fnhum.2013.00820>.
- McEwen, Bruce S. 1998. "Stress, Adaptation, and Disease: Allostasis and Allostatic Load." *Annals of the New York Academy of Sciences* 840, no. 1: 33-44. <https://doi.org/10.1111/j.1749-6632.1998.tb09546.x>.
- Mercer-Lynn, Kimberley B., David B. Flora, Shelley A. Fahlman, and John D. Eastwood. 2013. "The Measurement of Boredom: Differences Between Existing Self-Report Scales." *Assessment* 20, no. 5: 585-96. <https://doi.org/10.1177/1073191111408229>.
- Mercer-Lynn, Kimberley B., Rachel J. Bar, and John D. Eastwood. 2014. "Causes of Boredom: The Person, the Situation, or Both?." *Personality and Individual Differences* 56: 122-126. <https://doi.org/10.1016/j.paid.2013.08.034>.
- Mercer, Kimberley B., and John D. Eastwood. 2010. "Is Boredom Associated with Problem Gambling Behaviour? It Depends on What You Mean by 'Boredom.'" *International Gambling Studies* 10, no. 1: 91-104. <https://doi.org/10.1080/14459791003754414>.
- Milyavskaya, Marina, Michael Inzlicht, Travis Johnson, and Michael J. Larson. 2019. "Reward Sensitivity Following Boredom and Cognitive Effort: A High-Powered Neurophysiological

- Investigation.” *Neuropsychologia* 123: 159-68.
<https://doi.org/10.1016/j.neuropsychologia.2018.03.033>.
- Terrie E. Moffitt, Louise Arseneault, Daniel Belsky, Nigel Dickson, Robert J. Hancox, HonaLee Harrington, Renate Houts, Richie Poulton, Brent W. Roberts, Stephen Ross, Malcolm R. Sears, W. Murray Thomson, and Avshalom Caspi. 2011. “A Gradient of Childhood Self-Control Predicts Health, Wealth, and Public Safety.” *Proceedings of the national Academy of Sciences* 108, no. 7: 2693-98. <https://doi.org/10.1073/pnas.1010076108>.
- Moriarty, Orla, Brian E. McGuire, and David P. Finn. 2011. “The Effect of Pain on Cognitive Function: A Review of Clinical and Preclinical Research.” *Progress in Neurobiology* 93 (3): 385–404. <https://doi.org/10.1016/j.pneurobio.2011.01.002>.
- Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: Why Having Too Little Means So Much*. New York: Times Books.
- Murray, Terra, and Wendy Rodgers. 2012. “The Role of Socioeconomic Status and Control Beliefs on Frequency of Exercise During and After Cardiac Rehabilitation.” *Applied Psychology: Health and Well-Being* 4, no. 1: 49-66. <https://doi.org/10.1111/j.1758-0854.2011.01061.x>.
- Noble, Kimberly G., M. Frank Norman, and Martha J. Farah. 2005. “Neurocognitive Correlates of Socioeconomic Status in Kindergarten Children.” *Developmental Science* 8, no. 1: 74-87. <https://doi.org/10.1111/j.1467-7687.2005.00394.x>.
- Nussbaum, Martha. 2000. *Women and Human Development*. Cambridge: Cambridge University Press.
- O'Neill, Bruce. 2017. *The Space of Boredom: Homelessness in the slowing global order*. Durham: Duke University Press.
- O'Hanlon, James F. 1981. “Boredom: Practical Consequences and a Theory.” *Acta Psychologica* 49, no. 1: 53-82. [https://doi.org/10.1016/0001-6918\(81\)90033-0](https://doi.org/10.1016/0001-6918(81)90033-0).

- Oakes, J. Michael, and Peter H. Rossi. 2003. "The Measurement of SES in Health Research: Current Practice and Steps Toward a New Approach." *Social Science & Medicine* 56, no. 4: 769-784. [https://doi.org/10.1016/S0277-9536\(02\)00073-4](https://doi.org/10.1016/S0277-9536(02)00073-4).
- Ohlmeier, Silke, Mariusz Finkielstein, and Holger Pfaff. 2020. "Why We Are Bored: Towards a Sociological Approach to Boredom." *Sociological Spectrum* 40, no. 3: 208-225. <https://doi.org/10.1080/02732173.2020.1753134>.
- Ong, Qiyang, Walter Theseira, and Irene YH Ng. 2019. "Reducing Debt Improves Psychological Functioning and Changes Decision-Making in the Poor." *Proceedings of the National Academy of Sciences* 116, no. 15: 7244-49. <https://doi.org/10.1073/pnas.1810901116>.
- Pattyn, Nathalie, Xavier Neyt, David Henderickx, and Eric Soetens. 2008. "Psychophysiological Investigation of Vigilance Decrement: Boredom or Cognitive Fatigue?" *Physiology & Behavior* 93, no. 1-2: 369-78. <https://doi.org/10.1016/j.physbeh.2007.09.016>.
- Paulson, Morris J., Robert H. Coombs, and Mark A. Richardson. 1990. "School Performance, Academic Aspirations, and Drug Use Among Children and Adolescents." *Journal of Drug Education* 20, no. 4: 289-303. <https://doi.org/10.2190/8J0X-LY6D-PL7W-42FA>.
- Pekrun, Reinhard, Thomas Goetz, Lia M. Daniels, Robert H. Stupnisky, and Raymond P. Perry. 2010. "Boredom in Achievement Settings: Exploring Control-Value Antecedents and Performance Outcomes of a Neglected Emotion." *Journal of Educational Psychology* 102, no. 3: 531-49.
- Pina, Violeta, Luis J. Fuentes, Alejandro Castillo, and Sofia Diamantopoulou. 2014. "Disentangling the Effects of Working Memory, Language, Parental Education, and Non-Verbal Intelligence on Children's Mathematical Abilities." *Frontiers in Psychology* 5: 415. <https://doi.org/10.3389/fpsyg.2014.00415>.
- Prawitz, Aimee D., Julie C. Kalkowski, and Judith Cohart. 2013. "Responses to Economic Pressure by Low-Income Families: Financial Distress and Hopefulness." *Journal of Family and Economic Issues* 34, no. 1: 29-40. <https://doi.org/10.1007/s10834-012-9288-1>.

- Raver, C. Cybele, Clancy Blair, and Michael Willoughby. 2013. "Poverty as a Predictor of 4-year-Olds' Executive Function: New Perspectives on Models of Differential Susceptibility." *Developmental Psychology* 49, no. 2: 292-304. <https://doi.org/10.1037/a0028343>.
- Razza, Rachel A., Anne Martin, and Jeanne Brooks-Gunn. 2010. "Associations Among Family Environment, Sustained Attention, and School Readiness for Low-Income Children." *Developmental Psychology* 46, no. 6: 1528-42. <https://doi.org/10.1037/a0020389>.
- Razza, Rachel A., Anne Martin, and Jeanne Brooks-Gunn. 2012. "The Implications of Early Attentional Regulation for School Success Among Low-Income Children." *Journal of Applied Developmental Psychology* 33, no. 6: 311-9. <https://doi.org/10.1016/j.appdev.2012.07.005>.
- Reijseger, Gaby, Wilmar B. Schaufeli, Maria CW Peeters, Toon W. Taris, Ilona Van Beek, and Else Ouweneel. 2013. "Watching the Paint Dry at Work: Psychometric Examination of the Dutch Boredom Scale." *Anxiety, Stress & Coping* 26, no. 5: 508-25. <https://doi.org/10.1080/10615806.2012.720676>.
- Rhoades, Brittany L., Mark T. Greenberg, Stephanie T. Lanza, and Clancy Blair. 2011. "Demographic and Familial Predictors of Early Executive Function Development: Contribution of a Person-Centered Perspective." *Journal of Experimental Child Psychology* 108, no. 3: 638-62. <https://doi.org/10.1016/j.jecp.2010.08.004>.
- Roy, Amanda L., Dana Charles McCoy, and C. Cybele Raver. 2014. "Instability Versus Quality: Residential Mobility, Neighborhood Poverty, and Children's Self-Regulation." *Developmental Psychology* 50, no. 7: 1891-96. <https://doi.org/10.1037/a0036984>.
- Ruberry, Erika J., Liliana J. Lengua, Leanna Harris Crocker, Jacqueline Bruce, Michaela B. Upshaw, and Jessica A. Sommerville. 2017. "Income, Neural Executive Processes, and Preschool Children's Executive Control." *Development and Psychopathology* 29, no. 1: 143-54. <https://doi.org/10.1017/S095457941600002X>.
- Rupp, Deborah E., and Stephen J. Vodanovich. "The Role of Boredom Proneness in Self-Reported Anger and Aggression." *Journal of Social Behavior and Personality* 12, no. 4: 925-36.

- Sapolsky, Robert. 2005. "Sick of Poverty." *Scientific American* 293, no. 6: 92-9.
<https://www.jstor.org/stable/26061262>.
- Sawin, David A., and Mark W. Scerbo. 1995. "Effects of Instruction Type and Boredom Proneness in Vigilance: Implications for Boredom and Workload." *Human Factors* 37, no. 4: 752-65.
<https://doi.org/10.1518/001872095778995616>.
- Scerbo Mark W. 1998. "What's So Boring About Vigilance?" In *Viewing Psychology as a Whole: The Integrative Science of William N. Dember*, edited by Robert R. Hoffman, Michael F. Sherrick, and Joel S. Warm, 145-66. Washington: American Psychological Association.
- Scerbo, Mark W. 2001. "Stress, Workload, and Boredom in Vigilance: A Problem and an Answer." In *Stress, Workload, and Fatigue*, edited by Peter A. Hancock and Paula A. Desmond, 267-78. Mahwah: Lawrence Erlbaum Associates Publishers.
- Schilbach, Frank, Heather Schofield, and Sendhil Mullainathan. 2016. "The psychological Lives of the Poor." *American Economic Review* 106, no. 5: 435-40.
<https://doi.org/10.1257/aer.p20161101>.
- Schofield, Heather. 2014. "The Economic Costs of Low Caloric Intake: Evidence from India." Working paper. Harvard University.
- Sen, Amartya. 1999. *Development as Freedom*. Oxford: Clarendon Press.
- Sen, Amartya. 2000. *Social Exclusion: Concept, Application and Scrutiny. Social Development Papers No. 1*. Manila, Philippines: Office of Environment and Social Development, Asian Development Bank.
- Shafer, Kevin, and Spencer L. James. 2013. "Gender and Socioeconomic Status Differences in First and Second Marriage Formation." *Journal of Marriage and Family* 75, no. 3: 544-564.
<https://doi.org/10.1111/jomf.12024>.
- Shah, Anuj K., Jiaying Zhao, Sendhil Mullainathan, and Eldar Shafir. 2018. "Money in the Mental Lives of the Poor." *Social Cognition* 36, no. 1: 4-19. <https://doi.org/10.1521/soco.2018.36.1.4>.

- Shah, Anuj K., Sendhil Mullainathan, and Eldar Shafir. 2012. "Some Consequences of Having Too Little." *Science* 338, no. 6107: 682-685. <https://doi.org/10.1126/science.122242>.
- Shah, Anuj K., Sendhil Mullainathan, and Eldar Shafir. 2019. "An Exercise in Self-Replication: Replicating Shah, Mullainathan, and Shafir (2012)." *Journal of Economic Psychology* 75: 102127. <https://doi.org/10.1016/j.joep.2018.12.001>.
- Shanks, Trina R. Williams, and Christine Robinson. 2013. "Assets, Economic Opportunity and Toxic Stress: A Framework for Understanding Child and Educational Outcomes." *Economics of Education Review* 33: 154-70. <https://doi.org/10.1016/j.econedurev.2012.11.002>.
- Shaw, Susan M., Linda L. Caldwell, and Douglas A. Kleiber. 1996. "Boredom, Stress and Social Control in the Daily Activities of Adolescents." *Journal of Leisure Research* 28, no. 4: 274-92. <https://doi.org/10.1080/00222216.1996.11949776>.
- Sheehy-Skeffington, Jennifer, and Jessica Rea. 2017. *How Poverty Affects People's Decision-Making Processes*. York: Joseph Rowntree Foundation.
- Sherm, David L., Andrea K. Blanch, and Sarah M. Steverman. 2016. "Toxic Stress, Behavioral Health, and the Next Major Era in Public Health." *American Journal of Orthopsychiatry* 86, no. 2: 109-23.
- Singh-Manoux, Archana, Michael G. Marmot, and Nancy E. Adler. 2005. "Does Subjective Social Status Predict Health and Change in Health Status Better Than Objective Status?" *Psychosomatic Medicine* 67, no. 6: 855-61. <https://doi.org/10.1097/01.psy.0000188434.52941.a0>.
- Slovarp, Laurie, Tamiko Azuma, and Leonard Lapointe. 2012. "The Effect of Traumatic Brain Injury on Sustained Attention and Working Memory." *Brain Injury* 26, no. 1: 48-57. <https://doi.org/10.3109/02699052.2011.635355>.
- Smith, Aaron, Kyley McGeeney, Maeve Duggan, Lee Rainie, and Scott Keeter. 2015. "U.S. Smartphone Use in 2015." PewResearch Internet Project. Retrieved July 03, 2020. <https://www.pewresearch.org/internet/2015/04/01/us-smartphone-use-in-2015/>.

- Smith, Craig A., and Phoebe C. Ellsworth. 1985. "Patterns of Cognitive Appraisal in Emotion." *Journal of Personality and Social Psychology* 48, no. 4: 813-38.
- Snibbe, Alana Conner, and Hazel Rose Markus. 2005. "You Can't Always Get What You Want: Educational Attainment, Agency, and Choice." *Journal of Personality and Social Psychology* 88, no. 4: 703-20. <https://doi.org/10.1037/0022-3514.88.4.703>.
- Snibbe, Alana Conner, Judith Stewart, and Nancy E. Adler. 2007. "Where Do I Stand. How People Determine Their Subjective Socioeconomic Status." Unpublished manuscript.
- Spears, Dean. 2011. "Economic Decision-Making in Poverty Depletes Behavioral Control." *The B.E. Journal of Economic Analysis & Policy* 11, no. 1: Article 72.
- Stavrova, Olga, and Maike Luhmann. 2016. "Social Connectedness as a Source and Consequence of Meaning in Life." *The Journal of Positive Psychology* 11, no. 5: 470-9.
- Steinberger, Fabius, April Moeller, and Ronald Schroeter. 2016. "The Antecedents, Experience, and Coping Strategies of Driver Boredom in Young Adult Males." *Journal of Safety Research* 59: 69-82. <https://doi.org/10.1080/17439760.2015.1117127>.
- Stephens, Nicole M., Stephanie A. Fryberg, and Hazel Rose Markus. 2011. "When Choice Does Not Equal Freedom: A Sociocultural Analysis of Agency in Working-Class American Contexts." *Social Psychological and Personality Science* 2, no. 1: 33-41. <https://doi.org/10.1177/1948550610378757>.
- Stephens, Nicole M., Stephanie A. Fryberg, Hazel Rose Markus, Camille S. Johnson, and Rebecca Covarrubias. 2012. "Unseen Disadvantage: How American Universities' Focus on Independence Undermines the Academic Performance of First-Generation College Students." *Journal of Personality and Social Psychology* 102, no. 6: 1178-97.
- Stillman, Tyler F., Roy F. Baumeister, Nathaniel M. Lambert, A. Will Crescioni, C. Nathan DeWall, and Frank D. Fincham. 2009. "Alone and Without Purpose: Life Loses Meaning Following Social Exclusion." *Journal of Experimental Social Psychology* 45, no. 4: 686-94. <https://doi.org/10.1016/j.jesp.2009.03.007>.

- Struk, Andriy A., Abigail A. Scholer, and James Danckert. 2016. "A Self-Regulatory Approach to Understanding Boredom Proneness." *Cognition and Emotion* 30, no. 8: 1388-401. <https://doi.org/10.1080/02699931.2015.1064363>.
- Struk, Andriy A., Jonathan S. A. Carriere, J. Allan Cheyne, and James Danckert. 2017. "A Short Boredom Proneness Scale: Development and Psychometric Properties." *Assessment* 24, no. 3: 346-59. <https://doi.org/10.1177/1073191115609996>.
- Tam, Katy Y.Y., Wijnand A.P. Van Tilburg, and Christian S. Chan. 2021. "What Is Boredom Proneness? A Comparison of Three Characterizations." *Journal of Personality*. Early View. <https://doi.org/10.1111/jopy.12618>.
- Tam, Katy, Wijnand A. P. Van Tilburg, Christian Chan, Eric Igou, and Hakwan Lau. In press. "Attention Drifting In and Out: The Boredom Feedback Model." *Personality and Social Psychology Review*. Advance online publication.
- Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone. 2004. "High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success." *Journal of Personality* 72, no. 2: 271-324. <https://doi.org/10.1111/j.0022-3506.2004.00263.x>
- Thackray, Richard I., J. Powell Bailey, and R. Mark Touchstone. 1977. "Physiological, Subjective, and Performance Correlates of Reported Boredom and Monotony While Performing a Simulated Radar Control Task." In *Vigilance: Theory, Operational Performance and Physiological Correlates*, edited by Robert Mackie, 203–16. New York: Plenum.
- Todman, McWelling. 2003. "Boredom and Psychotic Disorders: Cognitive and Motivational Issues." *Psychiatry: Interpersonal and Biological Processes* 66, no. 2: 146-67. <https://doi.org/10.1521/psyc.66.2.146.20623>.
- Tolor, Alexander. 1989. "Boredom as Related to Alienation, Assertiveness, Internal-External Expectancy, and Sleep Patterns." *Journal of Clinical Psychology* 45, no. 2: 260-5. [https://doi.org/10.1002/1097-4679\(198903\)45:2<260::AID-JCLP2270450213>3.0.CO;2-](https://doi.org/10.1002/1097-4679(198903)45:2<260::AID-JCLP2270450213>3.0.CO;2-).

- Torres, D. Diego. 2013. "Understanding How Family Socioeconomic Status Mediates the Maternal Intelligence–Child Cognitive Outcomes Relationship: A Moderated Mediation Analysis." *Biodemography and Social Biology* 59, no. 2: 157-77. <https://doi.org/10.1080/19485565.2013.833804>.
- Troutwine, Robert, and Edgar C. O'Neal. 1981. "Volition, Performance of a Boring Task and Time Estimation." *Perceptual and Motor Skills* 52, no. 3: 865-6. <https://doi.org/10.2466/pms.1981.52.3.865>.
- Twenge, Jean M., Kathleen R. Catanese, and Roy F. Baumeister. 2003. "Social Exclusion and the Deconstructed State: Time Perception, Meaninglessness, Lethargy, Lack of Emotion, and Self-Awareness." *Journal of Personality and Social Psychology* 85, no. 3: 409-23. <https://doi.org/10.1037/0022-3514.85.3.409>.
- Tze, Virginia MC, Robert M. Klassen, and Lia M. Daniels. 2014. "Patterns of Boredom and Its Relationship with Perceived Autonomy Support and Engagement." *Contemporary Educational Psychology* 39, no. 3: 175-87. <https://doi.org/10.1016/j.cedpsych.2014.05.001>.
- van Hooft, Edwin AJ, and Madelon LM van Hooff. 2018. "The State of Boredom: Frustrating or Depressing?" *Motivation and Emotion* 42, no. 6: 931-46. <https://doi.org/10.1007/s11031-018-9710-6>.
- Van Tilburg, Wijnand AP, and Eric R. Igou. 2011. "On Boredom and Social Identity: A Pragmatic Meaning-Regulation Approach." *Personality and Social Psychology Bulletin* 37, no. 12: 1679-91. <https://doi.org/10.1177/0146167211418530>.
- Van Tilburg, Wijnand A.P., and Eric R. Igou. 2012. "On Boredom: Lack of Challenge and Meaning as Distinct Boredom Experiences." *Motivation and Emotion* 36, no. 2: 181-94. <https://doi.org/10.1007/s11031-011-9234-9>.
- Van Tilburg, Wijnand A.P., and Eric R. Igou. 2017a. "Boredom Begs to Differ: Differentiation from Other Negative Emotions." *Emotion* 17, no. 2: 309-322. <https://doi.org/10.1037/emo0000233>.

- Van Tilburg, Wijnand A.P., and Eric R. Igou. 2017b. "Can Boredom Help? Increased Prosocial Intentions in Response to Boredom." *Self and Identity* 16, no. 1: 82-96. <https://doi.org/10.1080/15298868.2016.1218925>.
- Vettenburg, Nicole, Ruben Brondeel, Claire Gavray, and Lieven J.R. Pauwels. 2013. "Societal Vulnerability and Adolescent Offending: The Role of Violent Values, Self-Control and Troublesome Youth Group Involvement." *European Journal of Criminology* 10, no. 4: 444-61. <https://doi.org/10.1177/1477370812470777>.
- Vliegenthart, J., Gerard Noppe, E. F. C. Van Rossum, J. W. Koper, Hein Raat, and E. L. T. Van den Akker. 2016. "Socioeconomic Status in Children is Associated with Hair Cortisol Levels as a Biological Measure of Chronic Stress." *Psychoneuroendocrinology* 65: 9-14. <https://doi.org/10.1016/j.psyneuen.2015.11.022>.
- Vodanovich, Stephen J. 2003. "Psychometric Measures of Boredom: A Review of the Literature." *The Journal of Psychology* 137, no. 6: 569-95. <https://doi.org/10.1080/00223980309600636>.
- Watt, John D., and Stephen J. Vodanovich. 1999. "Boredom Proneness and Psychosocial Development." *The Journal of Psychology* 133, no. 3: 303-14. [https://doi.org/10.1002/\(SICI\)1097-4679\(200001\)56:1<149::AID-JCLP14>3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1097-4679(200001)56:1<149::AID-JCLP14>3.0.CO;2-Y).
- Westgate, Erin C., and Timothy D. Wilson. 2018. "Boring Thoughts and Bored Minds: The MAC Model of Boredom and Cognitive Engagement." *Psychological Review* 125, no. 5: 689-713. <https://doi.org/10.1037/rev0000097>.
- Weybright, Elizabeth H., John Schulenberg, and Linda L. Caldwell. 2020. "More Bored Today Than Yesterday? National Trends in Adolescent Boredom from 2008 to 2017." *Journal of Adolescent Health* 66, no. 3, 360-5. <https://doi.org/10.1016/j.jadohealth.2019.09.021>.
- Willging, Cathleen E., Gilbert A. Quintero, and Elizabeth A. Lillioott. 2014. "Hitting the Wall: Youth Perspectives on Boredom, Trouble, and Drug Use Dynamics in Rural New Mexico." *Youth & society* 46, no. 1: 3-29. <https://doi.org/10.1177/0044118X11423231>.

- Zhao, Jiaying, and Brandon M. Tamm. 2017. "Attentional Trade-Offs Under Resource Scarcity." In *Augmented Cognition. Enhancing Cognition and Behavior in Complex Human Environments* (Lecture Notes in Computer Science, vol 10285), edited by Dylan D. Schmorow and Cali M. Fidopiastis, 78-97. Cham: Springer. https://doi.org/10.1007/978-3-319-58625-0_6.
- Ziino, Carlo, and Jennie Ponsford. 2006. "Vigilance and Fatigue Following Traumatic Brain Injury." *Journal of the International Neuropsychological Society: JINS* 12, no. 1: 100-110. <https://doi.org/10.1017/S1355617706060139>.