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Short-Term Mindsets
and Crime

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Keywords

short-term mindsets, self-control, impulsivity, criminological theory, population heterogeneity, state dependence

Abstract

We propose the concept of short-term mindsets as an alternative to self-control as envisioned in Gottfredson & Hirschi's self-control theory (SCT). We lay out a competing perspective, short-term mindsets theory (STMT), based on this novel concept. STMT assumes that short-term mindsets are partly rooted in enduring individual differences and in part develop in response to criminogenic environments, events, and experiences. STMT connects individual-level perspectives to sociogenic views by explaining how several risk factors of crime (e.g., negative parenting, delinquent peers, substance use) all impact on short-term mindsets. Exposure to one risk factor encourages short-term mindsets that, in turn, make exposure to other risk factors more likely, thereby increasing the likelihood of crime. We show that STMT enjoys stronger empirical support than SCT, better aligns with other theory, and can account for phenomena typically considered at odds with, or outside the purview of, SCT.

INTRODUCTION

The assumption that offenders tend to focus on the present and disregard the longer-term consequences of their actions is well established in criminology. This tendency, which we refer to here as a short-term mindset, is encountered in theory (e.g., Beccaria 1764, Gottfredson & Hirschi 1990), manifests in individual-level correlates of crime such as impulsivity, self-control, and inability to delay gratification (e.g., Moffitt 1993, Wilson & Herrnstein 1985), and runs as a common thread through the ethnographic research literature on offending (e.g., Brezina et al. 2009, Jacobs & Wright 1999). Even sanctioning systems are based on the belief that potential offenders would abstain from crime if only they were to contemplate its (long-term) costs (Nagin & Pogarsky 2004). Evidently, the prevalence of crime is testimony to an inability or unwillingness of many to do so.

Although the importance of short-term mindsets in crime causation has been widely acknowledged and has a strong empirical basis, our understanding of its role in the etiology of crime is incomplete. Moreover, dispersed research findings currently lack an organizing framework. In this article, we sketch the contours of a theory that addresses these gaps. Short-term mindsets theory (STMT) posits that people's focus on present versus future outcomes is partly dispositional, that is, reflective of enduring individual differences, but can also show within-individual variation as a function of exposure to risk factors such as criminogenic environments (e.g., adverse neighborhoods, delinquent peer groups), events (e.g., victimization, sanctions), and experiences (e.g., being drunk, aroused, or angry). According to STMT, such factors operate according to a self-reinforcing logic, meaning that exposure to one risk factor may increase short-term mindsets that, in turn, make exposure to other risk factors more likely, thereby increasing the likelihood of crime. The theory thus connects individual-level perspectives to sociogenic views by explaining how several, often seemingly unrelated, risk factors of crime and delinquency all impact on short-term mindsets. In doing so, STMT provides the foundation for an integrative paradigm for the study of crime.

This article is structured into five sections. In Section 1, we elaborate on the concept of short-term mindsets. In Section 2, we discuss differences and points of overlap between STMT and self-control theory (SCT) (Gottfredson & Hirschi 1990) by juxtaposing key tenets of SCT with the main assumptions underlying STMT and reviewing the empirical evidence.¹ We then explore how short-term mindsets are implicated in a series of diverse and important risk factors of crime in Section 3. In Section 4, we examine the role on offending of short-term mindsets as momentary states. We conclude with a discussion of measurement challenges, open questions, and directions for future research in Section 5.

1. WHAT ARE SHORT-TERM MINDSETS?

All people face challenges on a variety of timescales, from meeting immediate needs (e.g., eating when hungry) to expending effort to achieve long-term goals (e.g., pursuing education with a view to future employment). In some cases, addressing a challenge in the short term (e.g., eating food) also promotes longer-term outcomes (e.g., staying alive). In other cases, however, prioritizing current outcomes (e.g., hanging out with delinquent peers) trades off with achieving future goals (e.g., completing an education). Such trade-offs—where investing in one activity reduces the resources available for other activities—occur in various aspects of life, including health behavior, education, romantic relationships, and personal finance, and they are also inherent to criminal conduct.

¹As the limitations of self-control theory have been exposed and discussed in prior work (for an excellent review, see Burt 2020), we confine ourselves to contrasting SCT with STMT.

People vary in their orientation toward current versus future outcomes. Some tend to prioritize the present more strongly than others, focusing on events in the here and now—with their cognition concentrated on processing information to address immediate challenges and their behavior geared toward obtaining short-term rewards. We refer to this tendency as short-term mindsets, in line with Crum et al. (2013, p. 717) who define a mindset as a “mental frame or lens that selectively organizes and encodes information, thereby orienting an individual toward a unique way of understanding an experience and guiding one toward corresponding actions and responses.” Short-term mindsets thus reflect the extent to which a person is focused on achieving current versus future outcomes. The more they organize their cognition and behavior toward future goals, seek out and process information to address prospective challenges, and forego immediate rewards to obtain later, potentially larger rewards, the more long-term oriented their mindsets are.

We argue that short-term mindsets are the active ingredient of several established (trait) correlates of crime belonging to the same nomological network, such as (low) self-control, (low) future orientation, impulsivity, sensation-seeking, (low) conscientiousness, (lack of) consideration of future consequences, (inability to) delay gratification, (low) constraint, (low) effortful control, and others (see also Thielmann 2023). Although these traits differ from each other in important ways—with some, for example, denoting a lack of consideration of the future and others implying its deliberate devaluation (Jaynes et al. 2021, Nagin & Pogarsky 2004)—they all share temporal underpinnings, aside from their unique nontemporal elements (see **Figure 1**).

In STMT, the concept of short-term mindsets specifically and only captures prioritization of the present. This distinguishes short-term mindsets from traits that include nontemporal elements. For example, definitions of impulsivity and self-control often reference an (in)ability to override impulses or resist immediate temptation (Duckworth & Steinberg 2015, Tangney et al. 2004). Accordingly, these definitions also involve self-regulation, especially with regard to bringing the self into line with preferred standards (Vohs & Baumeister 2004). By contrast, short-term

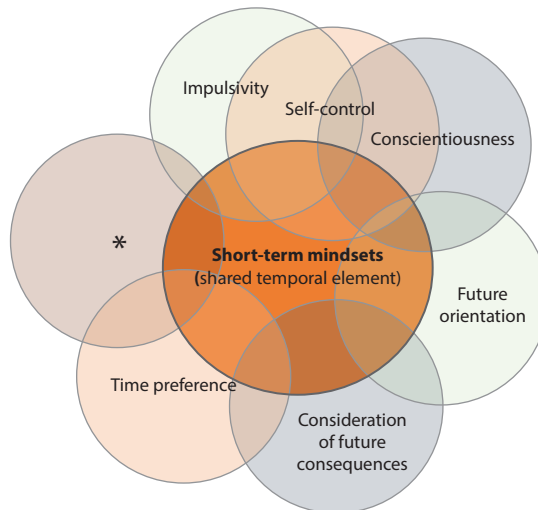


Figure 1

Conceptual overlap between indicators of short-term mindsets. The center circle reflects the shared temporal content of the various indicators. The asterisk denotes variables not included in the figure.

mindsets do not presuppose temptation or weakness of will. As Burt (2020, p. 56) notes, “If there is no higher-order goal or standard that conflicts with an impulse, there is no impulse–goal conflict, and self-control is irrelevant to the action” (see also Wikström & Treiber 2007). Thus, STMT proposes that short-term mindsets are involved in crime causation, irrespective of resisting temptation. To be sure, we do not imply that (resisting) temptation is not relevant to the explanation of crime. In fact, it frequently is relevant, both as a cause of crime independent from short-term mindsets and because temptation can cause short-term mindsets (see Section 4). Yet the propensity to self-regulate is not an inherent feature of short-term mindsets, even if it may be correlated with it.

As Daly & Wilson (2005) have pointed out, criminologists (and economists) often treat preferences of immediate over delayed outcomes—implicitly or explicitly—as dispositional. However, short-term mindsets can result from dispositions as well as time-varying variables, such as an individual’s physiological or economic state (e.g., intoxication, lack of resources) and external circumstances (e.g., family instability, neighborhood crime). Thus, short-term mindsets are not exclusively dispositional or trait-like. Rather, they can display both trait-like and state-like properties and show substantial variation both between and within individuals across contexts and time.² This can even occur on very short timescales, such as days, hours, or even minutes, for example, due to alcohol intoxication, drug craving, peer pressure, or an urgent need for cash (see Section 4).

In sum, short-term mindsets is an umbrella term that specifically captures the temporal elements of several traits that have been related to crime and other self-defeating behaviors (as depicted in **Figure 1**), with impulse–goal conflicts and self-regulation aspects taking a back seat. Determinants of short-term mindsets include enduring factors, such as genetic makeup and developmental contexts, as well as current conditions. Finally, short-term mindsets can vary both between and within individuals on very short timescales.

2. SIMILARITIES AND DIFFERENCES BETWEEN SHORT-TERM MINDSETS AND SELF-CONTROL

As SCT has long been a dominant individual-level perspective in criminology, and its central concept of self-control is related to short-term mindsets, it is the logical benchmark to compare STMT with. In their landmark book *A General Theory of Crime*, besides noting that crime generally carries immediate, and relatively modest, rewards and more remote costs, Gottfredson & Hirschi (1990) make two other important observations. First, the nature of a propensity can be inferred from behavior; that is, people who engage in delinquent behavior are short-sighted, as they opt for immediate gratification at the expense of considering the more distal consequences of their actions. Second, this propensity is correlated with not only crime but also several other problem or analogous behaviors, such as excessive alcohol and drug use, sexual promiscuity, speeding, gambling, and others that are similarly characterized by immediate rewards and long-term costs.

STMT aligns with these observations. It overlaps with SCT in viewing the prioritization of current outcomes as a key driver of criminal behavior. We also see this tendency as an inherent explanation of other problem behaviors that share the temporal incentive structure of crime (i.e., offering immediate rewards and longer-term costs) and that tend to co-occur within the same individuals (Junger & Deković 2017). Furthermore, similar to SCT, STMT revolves around a single concept: short-term mindsets. Yet our theory differs from Gottfredson & Hirschi’s as to

²Our use of the term “mindsets” serves to emphasize the potential for variation over time.

Table 1 Differences between key tenets of self-control theory and short-term mindsets theory

Self-control theory	Short-term mindsets theory
Contains temporal and nontemporal elements	Contains only temporal aspects
Between-individual stability after childhood	Allows for change after childhood
Unidirectionally related to crime	Reciprocally related to crime
Includes only traits	Incorporates traits and states

what this variable entails, how it develops, and how it relates to crime and other problem behaviors. In the following subsections, we contrast key tenets of SCT with the corresponding characteristics of STMT, discuss the empirical evidence in support of both theories, and demarcate STMT as a theory in its own right.

We discuss four main differences between STMT and SCT. The first of these concerns the nature of the central concept of each theory. Whereas SCT posits a broad and heterogeneous concept, STMT defines a narrower concept restricted to temporal elements. The second concerns development over the life course. SCT assumes between-individual stability over the life course after childhood. STMT, in contrast, allows for changes across the lifespan. The third difference concerns assumptions relating to causal ordering. In contrast to SCT, which assumes a unidirectional causal relation and other causes of crime to be spurious, STMT acknowledges other causes of crime and identifies reciprocal relations and feedback loops between short-term mindsets and crime. Finally, whereas SCT is a strictly dispositional or trait perspective, STMT captures both between- and within-individual variation across contexts and time. We elaborate on these four differences next (see also **Table 1**).

2.1. Broad Versus Narrow Traits

Self-control: broad and heterogeneous concept composed of six elements, including nontemporal elements.

Short-term mindsets: narrow concept that reflects only prioritization of the present and excludes nontemporal elements.

Within the framework of SCT, Gottfredson & Hirschi (1990) define self-control narrowly as the disregard for long-term consequences—an element incorporated into STMT. However, their description of the nature of self-control is much broader and inconsistent with this narrow definition—an element that deviates from STMT. According to Gottfredson & Hirschi (1990), people who lack self-control are (a) impulsive, (b) risk- or sensation-seeking, (c) self-centered and insensitive to the needs of others, (d) have a preference for physical (as opposed to mental or cognitive) activities, (e) lack diligence and persistence in the course of action, and (f) have a minimal tolerance for frustration. They assume this set of six heterogeneous elements to form a stable unitary underlying propensity: “Since these traits can be identified prior to the age of responsibility for crime, since there is considerable tendency for these traits to come together in the same people, and since the traits tend to persist through life, it seems reasonable to consider them as comprising a stable construct useful in the explanation of crime” (Gottfredson & Hirschi 1990, pp. 90–91).

The disconnect between Gottfredson & Hirschi’s (1990) narrow definition, on the one hand, and their broad description, on the other, suggests low construct validity. That is, the different (nontemporal) elements do not all map onto the definition of self-control as disregard for long-term consequences. For instance, it is quite possible to prefer physical over cognitive activities while being future-oriented (e.g., engaging in physical exercise to promote future health). Not surprisingly, and inconsistent with unidimensionality, the six different elements of self-control also

map onto different, orthogonal traits of structural models of personality, such as the Big Five and HEXACO models (de Vries & van Gelder 2013, Marcus 2004). Overall, research on the factor structure of composite self-control scales based on the broad description (e.g., Grasmick et al. 1993) does not support the hypothesis that self-control is a unidimensional construct (e.g., DeLisi et al. 2003, Forrest et al. 2019, Longshore et al. 1996, Marcus 2003, Piquero 2008, Vazsonyi et al. 2001, Ward et al. 2015).

In contrast to the broad nature of self-control as described in the context of SCT, short-term mindsets pivot only on time preference. Of the six elements outlined above, only impulsivity and sensation-seeking align with the STMT definition and fall under its scope. We consider these to be related, yet distinct, indicators of short-term mindsets: Conceptually, they include different nontemporal elements, and empirically, they have different neural underpinnings and follow different developmental trajectories (Burt et al. 2014, Steinberg et al. 2008; see also Section 5). Notably, impulsivity and sensation-seeking also appear to be the strongest predictors of criminal behavior (van Gelder et al. 2020). In sum, STMT is both more conceptually precise and better aligned with the empirical record than SCT.

2.2. Stability Versus Change

Self-control: levels are established in childhood and between-individual differences remain stable over the life course.

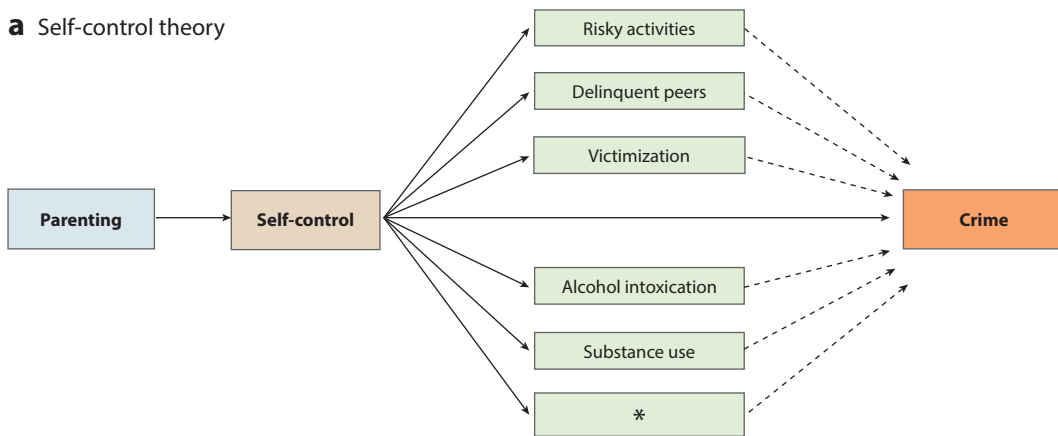
Short-term mindsets: can continue to show change over the life course.

According to Gottfredson & Hirschi (1990), individual differences in self-control are largely fixed following childhood: “One’s level of self-control is acquired in childhood (or earlier) and . . . differences in self-control between individuals are unaffected by subsequent experience” (Hirschi 2004, p. 541). By contrast, STMT allows for continued change in short-term mindsets over the life course. Specifically, STMT argues that short-term mindsets are affected by crime-relevant experiences (e.g., sanctions, victimization) and other risk factors (e.g., delinquent peers, growing up in disadvantaged neighborhoods; see Section 3). This has major implications for hypotheses about reverse causality and feedback loops between crime and self-control (and as other indicators of short-term mindsets), which are part of STMT but not of SCT (see **Figure 2**)—as detailed in Section 2.3 below.

Increasingly, criminological research shows that self-control tends to increase over the life course, that individual differences are only moderately stable, and that a substantial minority of individuals shows considerable change over time (e.g., Burt et al. 2006, 2014; Hay & Forrest 2006; Murray et al. 2016; Na & Paternoster 2012; Pyrooz et al. 2021). Factors and processes shown to influence self-control well beyond early childhood include parenting practices (Burt et al. 2006, Hay & Forrest 2006, van Gelder et al. 2018), levels of self-control of peers (Meldrum et al. 2012, Ragan et al. 2023), sanctions (van Gelder et al. 2020), and victimization (Kübel et al. 2023, Wojciechowski 2022). Furthermore, engaging in delinquent behavior in adolescence may influence subsequent levels of self-control in early adulthood (Clinkinbeard et al. 2018; see also Defoe et al. 2024), and self-control declines during active periods of gang membership (Pyrooz et al. 2021). Thus, the claim that self-control remains stable after childhood is not supported by multiple lines of empirical research.³

³Although we cannot exclude the possibility that the development in self-control is (also) driven by changes in its nontemporal elements, we deem this to be unlikely. Multiple studies have shown the temporal elements in particular to show development over time, most notably during adolescence (Defoe et al. 2024, Forrest et al. 2019, Steinberg et al. 2009, van Gelder et al. 2020).

a Self-control theory



b Short-term mindsets theory

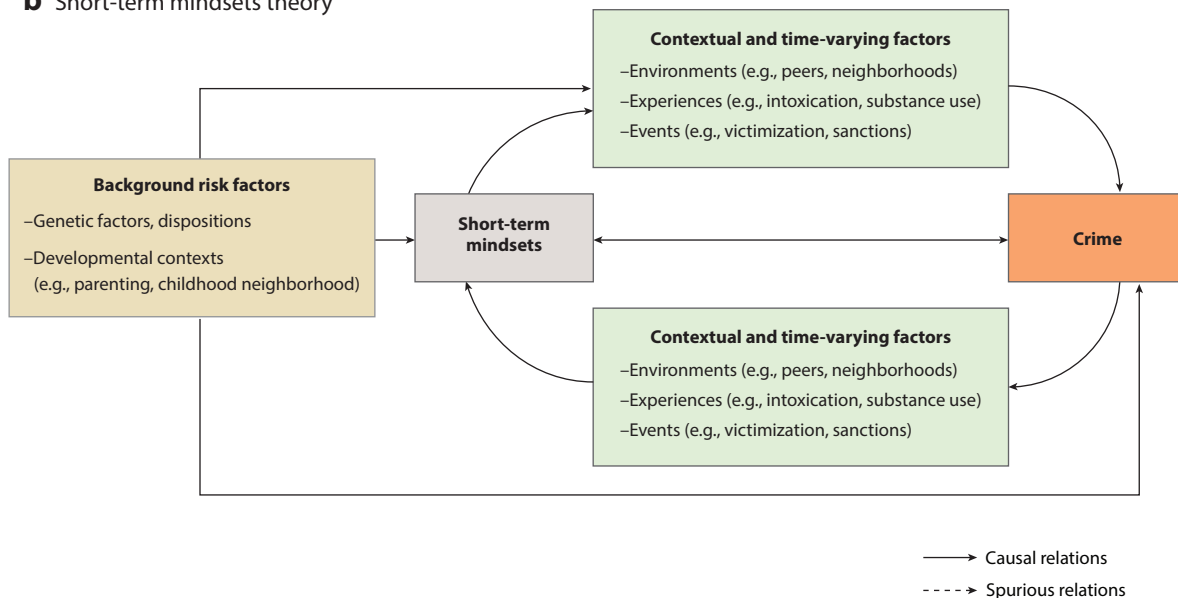


Figure 2

Visual representation of the causal models underlying (a) self-control theory and (b) short-term mindsets theory. The asterisk denotes variables not included in the figure.

2.3. Causal Ordering

Self-control: relation with crime is unidirectional, and traditional causes of crime are consequences of self-control.

Short-term mindsets: relation with crime is reciprocal, and crime can have causes unrelated to short-term mindsets.

SCT proposes that self-control is the ultimate cause of crime. Any correlations between crime and other factors, such as delinquent peer associations and social connections, are assumed to be spurious. In the words of Gottfredson & Hirschi (1990, p. 119, italics in original), “Many of the traditional causes of crime are in fact consequences of low self-control—that is, people with

low self-control sort themselves and are sorted into a variety of circumstances that are *as a result* correlated with crime.” For example, peer effects are “indicative of a lack of self-control, of unconcern for long-range goals or benefits” (Gottfredson & Hirschi 1990, p. 159) and “a predictable consequence of the causes of crime” (Gottfredson & Hirschi 1990, p. 251); that is, self-control.⁴

The spuriousness assumption of SCT has not stood up well to empirical scrutiny. Several key variables, including social connections with family and delinquent peers, continue to affect crime when controlling for prior (low) levels of self-control (Agnew et al. 2002, Burt et al. 2006, Felson & Staff 2006, Hay et al. 2013, Stults et al. 2021, Wright et al. 2001). Models controlling for (low) self-control consistently demonstrate large and significant effects of delinquent peer associations, in particular (e.g., Burt et al. 2006, Pratt & Cullen 2000, Wright et al. 1999). Indeed, low self-control’s indirect effect on crime, through social ties, appears to be even larger than its direct effect (Wright et al. 2001). Furthermore, as was discussed previously in Section 2.2, there is increasing evidence that different predictors of crime, such as the risk factors peers and negative parenting, also affect levels of self-control (Defoe et al. 2021, Kübel et al. 2024, van Gelder et al. 2018).

According to STMT, other predictors of crime are not mere by-products of self-control but can have genuine causal effects. In particular, STMT assumes that many correlates of crime (e.g., peers, adverse neighborhoods) share the potential to affect short-term mindsets, thus allowing for reverse causality and feedback loops. Thus, although we agree with SCT that people with short-term mindsets may select themselves into or get exposed to criminogenic circumstances, we also hold that such circumstances may further increase short-term mindsets. The relation between short-term mindsets and crime, therefore, is reciprocal: Not only do short-term mindsets affect crime, but engaging in crime and leading a delinquent lifestyle also impact on short-term mindsets.

2.4. Trait- Versus State-Level Explanations

Self-control: trait-level theory focusing on between-individual differences.

Short-term mindsets: assumes trait and state-like characteristics and captures within-individual variation across contexts and time.

SCT is a trait-level explanation, according to which self-control reflects an enduring characteristic of individuals. The theory was designed to explain the persistence of crime over time and situations: “Our theory centers on individual differences in the tendency to attend to the consequences of one’s actions as a general cause of delinquency, crime, and analogous problem behaviors” (Gottfredson & Hirschi 2019, p. 4). It is assumed that initial levels of self-control carry consequences manifesting themselves throughout the life course in the form of criminal behavior, educational attainment, unemployment, drug addiction, and so on. The theory thus attributes stability in offending to heterogeneity within the population in terms of an underlying characteristic, i.e., self-control.

STMT, by contrast, espouses a broader view based on the assumption that the extent to which a person is focused on achieving current versus future outcomes varies not only between individuals but also within individuals across time and situations. Factors affecting this focus range from relatively stable and structural, such as the home environment and neighborhood that people grow up in (see Section 3), to more proximate and time-varying, such as drugs and alcohol use, the immediate presence and pressure of peers, and sexual arousal (see Section 4). Thus, next to comprising time-stable, trait-like characteristics that reflect a short-term mindset, STMT also allows for variation over time and situations, on very brief intervals, as a function of physiological

⁴Gottfredson & Hirschi (2019) have adjusted this view in more recent work, where they acknowledge that crime can have other causes than self-control, including peer effects.

and contextual state. We emphasize that state variation in this latter sense—that is, the rapid and reversible variability in short-term mindsets over brief intervals—is different and should be distinguished from the within-person trait change that was discussed in Section 2.1, which denotes the much slower and gradual change within individuals due to developmental processes, such as maturation and learning (Hamaker et al. 2007, Nesselroade 1991). We discuss different ways in which trait-short-term mindsets and state-short-term mindsets are related in Section 4.

2.5. Summary: Key Differences Between Self-Control Theory and Short-Term Mindsets Theory

In sum, STMT departs from SCT in several ways: It does not (*a*) pivot on a heterogeneous concept, (*b*) assume stability after childhood, (*c*) claim that other causes of crime are spurious or irrelevant to its explanation, or (*d*) involve a strictly dispositional perspective. Rather, it suggests that prioritization of the present is the active ingredient in crime causation; embraces the potential of both developmental and current context to influence short-term mindsets; allows for other causes of crime, reverse causation, and feedback loops; and posits that short-term mindsets have both more time-stable and time-varying elements. STMT is thus at once more focused (i.e., narrowed to temporal elements) and more encompassing (i.e., incorporating change over the lifespan and across situations, and acknowledging that crime has causes beyond short-term mindsets) than SCT. Finally, as will be explained in the next section in more detail, SCT and STMT also invoke different processes to explain the persistence of crime, with SCT being restricted to population heterogeneity and STMT integrating population heterogeneity with state-dependent processes (Heckman 1981, 1991; Nagin & Paternoster 2000).

3. BACKGROUND RISK FACTORS INFLUENCING SHORT-TERM MINDSETS

Having discussed similarities and differences between SCT and STMT, this section examines several important background risk factors of crime through the lens of STMT. As noted above, STMT can accommodate both population heterogeneity and state-dependence processes. In line with population heterogeneity, short-term mindsets can reflect individual differences in criminal conduct that reverberate throughout the life course by increasing the risk of offending. In line with state dependence, STMT also assumes exposure to certain environments, events, and experiences to have a genuine causal effect on short-term mindsets. That is, rather than simply assuming that short-term mindsets result from spurious associations with third variables, such environments and experiences can promote delinquency through increased short-term mindsets. For example, short-term mindsets predispose people growing up in economically deprived and/or violent environments to select into deviant peer groups, facilitate exposure to illicit substances, and increase the likelihood of run-ins with the law. These factors, in turn, are related to increased short-term mindsets, amplifying the risk of further selection into, or more exposure to, criminogenic environments and situations, which may thus result in self-reinforcing cycles of offending (see also Section 4).

From this, it follows that STMT can account for empirical evidence linking social environments to crime, both directly (as they increase short-term mindsets) and indirectly (as individuals with short-term mindsets are more likely to select into environments and become exposed to factors that further increase such mindsets). This moves away from assigning causal primacy to one immutable factor, as is the case under SCT, and toward bidirectional associations and cascading effects that can also explain continuity in crime and persistent offending (see also Section 5). In this context, the roles of environmental conditions and risk factors merit further exploration.

3.1. Environmental Conditions

Evolutionary developmental psychologists assume that humans, like other animals, use their experiences to learn about current environmental conditions (e.g., safe or dangerous) and predict likely future conditions. This information, in turn, influences behavioral strategies that help individuals achieve fitness-relevant goals (related to survival and reproduction) within the affordances and constraints of their environments (Frankenhuis & Nettle 2020, Kruger et al. 2008, Mishra et al. 2017, Mittal et al. 2015, Pepper & Nettle 2017). From this viewpoint, Daly & Wilson (1997) argued that it can be adaptive to adopt an orientation that is geared toward the here and now when facing uncertain future prospects. For example, youth living in deprived neighborhoods—characterized by poverty, unemployment, residential mobility, single-parent families, and crime—learn that their environments offer poor prospects and volatile rewards, including reduced lifespan. As a consequence, they might develop risky strategies to capitalize on the sparse and fleeting opportunities such environments offer, which include the possibility of obtaining immediate rewards, such as “fast cash” (Boon-Falleur et al. 2024, Chisholm 1999, Griskevicius et al. 2011, Simpson et al. 2012). As Daly & Wilson (1997, p. 81) put it, “If both grandfathers of a young man were dead before he was born, and more than a couple of his primary school classmates are already dead too, and gray-haired men stand out in his neighborhood by virtue of their rarity, there may be something going on that he should attend to.”

Several studies linking life expectancy to crime illustrate how negative future prospects affect short-term mindsets and crime. For example, Wilson & Daly (1997) found that homicide rates in Chicago were predicted by neighborhood life expectancy (with effects of homicide mortality removed) and neighborhood income inequality. They argue that risky behaviors, such as committing homicide, are due to steep future discounting, which in turn follows from shorter life expectancies in these neighborhoods. In a mixed-methods study, Brezina et al. (2009) found that the anticipation of an early death predicted adolescents’ engagement in crime and violence. Their interviews with offenders point to several variables that mediate this association, including present-time orientation, perceived salience of immediate rewards, and a disregard for the future consequences of their behavior, all of which are reflective of a short-term mindset.

In his ethnography of poor inner-city neighborhoods in Philadelphia, Anderson (2000, pp. 135–36) describes how short-term mindsets prevail in street culture: “Those residing in some of the most troubled areas typically have witnessed much street violence that has at times resulted in maiming or death. . . The high death rate among their peers keeps many from expecting to live beyond age twenty-five. With such an outlook, ‘living fast and large’ in the present makes sense, for ‘tomorrow ain’t promised to you.’” In another study, Piquero (2016) linked anticipated age of death to impulse control and found young offenders from adverse neighborhoods to anticipate an earlier age of death, and those reporting an earlier anticipated age of death to also report reduced levels of impulse control. Additionally, this perception of lower life expectancy also influenced perceived risks and rewards of offending, such that those in higher offending trajectories perceived higher rewards and lower risks of offending. Together, this research suggests that adopting a short-term mindset can be, at least under certain circumstances, a reasonable (in the sense of being contextually appropriate) response to uncertain and/or poor future prospects—tailored to the affordances and constraints of the decision-making environment—rather than an impairment or irrational aberration (e.g., Bulley & Pepper 2017, Daly & Wilson 2005, Ellis et al. 2009, Frankenhuis & Nettle 2020, Frankenhuis et al. 2016, Mishra et al. 2017, Pepper & Nettle 2017, Wilson & Daly 2004).

Experimental research shows that adaptive adjustment to one’s environment is not restricted to structural circumstances but can already occur on brief timescales in response to the immediate

situation. The well-known “marshmallow test” has been shown to predict later life adjustment, substance abuse, school performance, health, and a series of other outcomes (Casey et al. 2011, Moffitt et al. 2011, Shoda et al. 1990). In the original version of this test, children are given the option to eat a single marshmallow immediately or to wait and receive two marshmallows after a delay (e.g., Mischel et al. 1989). The classic explanation for children’s inability to delay gratification and to eat the single marshmallow immediately is that it is a result of enduring individual differences, that is, a deficiency in (trait) self-control (e.g., Mischel et al. 1989, Shoda et al. 1990). However, several recent studies have substantially nuanced this view (Kidd et al. 2013, Lee & Carlson 2015, Moffitt et al. 2020). These studies manipulated the predictability of the experimental environment prior to the choice task. In conditions where the experimenter had proven to be unreliable (by not following through on a promise) prior to presenting the children with the choice of an immediate versus a delayed reward, children were much less willing to wait on the delayed larger reward compared to the situation where the experimenter had proven to be reliable. Moreover, recent replication studies show that the associations between childhood impulsivity (measured with the marshmallow test) and negative outcomes in adulthood are substantially attenuated when controlling for such variables as family background and the home environment (Watts et al. 2018; but see Falk et al. 2020).

Thus, both criminological and experimental psychological research uphold two of STMT’s tenets: First, people retain considerable flexibility in their tendency to delay gratification and exercise self-control; second, the reliability of the environment and uncertainty about future rewards are key influences on these abilities. By implication, the inability to delay gratification is not an immutable trait or definitive risk factor. As a consequence, rather than perceiving short-term mindsets as exclusively resulting from a lack of dispositional foresight or ability to control impulses, the research discussed here suggests such behavior can also be a reasonable response to environments characterized by adversity and uncertain future prospects. In such environments, “reckless” risk-taking can be a reasonable strategy when the expected profits from safer courses of action are negligible (Wilson & Daly 1997, p. 1271).

3.2. Parenting, Victim–Offender Overlap, and Sanctions

In this section, we discuss the relation between environments and short-term mindsets in more detail in the context of three specific risk factors: parenting, victimization, and sanctions, each of which features in the criminological literature as a key predictor of delinquency and criminal conduct.

3.2.1. Parenting. Research has demonstrated robust associations between negative parenting practices and subsequent adolescent delinquency as well as other risky behaviors and negative outcomes, including alcohol and drug use, ill health, and reduced life expectancy. However, theoretical explanations of these associations that enjoy empirical support are scarce. In one exception, van Gelder et al. (2018) examined the effect of harsh and inconsistent parenting practices on short-term mindsets and delinquency using data from the Zurich project on the social development from childhood to adulthood (z-proso)—a large-scale prospective study of Swiss youth containing various indicators of short-term mindsets (Ribeaud et al. 2022). Using a measure of corporal punishment as an indicator of environmental harshness and a measure of inconsistent punishment as an indicator of environmental unpredictability, the authors propose that short-term mindsets, operationalized by impulsivity and low future orientation, may be a key mediator accounting for the relation between harsh and inconsistent parenting and delinquency. In line with expectations, they found that both indicators of short-term mindsets mediated the relation between corporal and inconsistent punishment and delinquency, controlling for prior measures

of delinquency, future orientation, and impulsivity as well as gender, ethnicity, and socioeconomic status.

These findings were replicated and extended by Deitzer et al. (2024) in two studies, one using z-proso data and the other using the PROMoting School-community-university Partnerships to Enhance Resilience (PROSPER) data set. These authors used various indicators of environmental harshness (including corporal punishment, family/parent violence, violent peers/groups, and victimization/bullying) and unpredictability (low socioeconomic status, family instability, and inconsistent parenting) and operationalized short-term mindsets through measures of impulsivity, (low) future orientation, and sensation-seeking. Again, in line with expectations, they found short-term mindsets to mediate the relation between environmental harshness and unpredictability, on the one hand, and delinquency, on the other. That is, having inconsistent, uninvolved, or punitive parents; being victimized (bullied) by one's peers; and having violent friends consistently predicted later short-term mindsets, particularly sensation-seeking, which mediated their relationships with delinquency. Aside from mediation through short-term mindsets, the authors also tested for mediation through unpredictability schemas, which reflect the belief that the world is chaotic and people are undependable and unable to control their circumstances. Although some mediation occurred, effects were substantially weaker than for short-term mindsets.

3.2.2. Victimization. Being victimized might also lead people to perceive their environments as harsh and offering uncertain future prospects (e.g., “Will I be alive at age 25?” “Can I count on keeping what is mine?”) and might even directly diminish future prospects (e.g., as a consequence of injury) (Daly & Wilson 2005, Kübel et al. 2023). As victimization can affect time preferences, Kübel and colleagues (2023) hypothesized that short-term mindsets could be a potential explanation for the victim–offender overlap—the well-established finding that victims of crime are more likely to be offenders than nonvictims and vice versa. Prevailing explanations of the victim–offender overlap tend to assume that victimization and offending are caused by the same source, such as (low) self-control or risky lifestyles. However, Kübel and colleagues (2023) argue that the association between victimization and subsequent offending may in fact also be causal. That is, as victimization signals uncertain, and potentially worse, future prospects, it leads people to prioritize immediate rewards and disregard the potential long-term costs of offending. The authors hypothesized that, compared to people who have not been victimized, victims developed increased short-term mindsets, which in turn increased the likelihood of subsequent offending. Using z-proso data and measures of impulsivity, sensation-seeking, and (low) future orientation as indicators of short-term mindsets, their expectations were supported in mediation analyses. Specifically, short-term mindsets mediated the association between victimization and subsequent offending, net of prior levels of offending, short-term mindsets, and several other controls, such as ethnicity, gender, and socioeconomic status.

3.2.3. Sanctions. One of the iatrogenic effects of sanctions is the risk of increased reoffending. Emerging evidence suggests that such effects may be partially explained by short-term mindsets (Testa et al. 2022, van Gelder et al. 2020). Being sanctioned may cut off access to legal employment opportunities and drive people away from conventional civic and social life. This can lead them to perceive their future prospects as poorer and more uncertain (with fewer options), which in turn affects their trade-offs between immediate and future outcomes, with bleaker futures creating incentives to favor present over long-term outcomes. This feedback loop, from crime to sanctions and back to crime, dovetails with the notion of cumulative continuity of disadvantage—according to which engaging in delinquency and getting entangled with the criminal justice system incrementally “mortgages the future” by producing negative effects for life chances (Laub & Sampson 1993, p. 306). Such experiences may lead people to seek out, or be

selected into, criminogenic environments (e.g., deviant peer groups), weaken social ties with conventional others, result in school failure or increase unemployment, and promote substance abuse. Each of these factors can encourage short-term mindsets, thereby increasing the risk of subsequent delinquency.

van Gelder and colleagues (2020) examined the hypothesis that being sanctioned, measured through school sanctions and police contacts, contributes to lower self-control, which, in turn, predicts later delinquency. As a subsidiary goal, these authors also examined the effects of a narrower view of self-control, one limited to the elements (used in broad self-control scales) that reflect short-term mindsets: risk-seeking and impulsivity (see Section 2.1). They tested their hypothesis in a model that included both a narrow self-control component, consisting of risk-seeking and impulsivity (temporal elements), and a residual component, consisting of the other, nontemporal elements of self-control, as mediators. Supporting expectations based on STMT, the narrow self-control component mediated the relation between sanctioning and subsequent delinquency, net of prior levels of self-control, earlier delinquency, and several other control variables. Importantly, no mediation occurred for the residual (nontemporal) component, suggesting that short-term mindsets are the “active ingredient” in this association, consistent with STMT, and contradicting SCT.

In a related study, Testa and colleagues (2022) examined the relation between personal and vicarious police contact and future orientation using data from the Pathways to Desistance study, a longitudinal study of serious offenders followed from adolescence through young adulthood. The authors argue that police stops signal to adolescents that they are potential offenders being surveilled by the state and that they will experience future criminal justice contact, leading them to evaluate their future prospects as diminished. Adjusting for several observable time-varying characteristics that may be related to both changes in police contact and future orientation (e.g., substance dependence, gang involvement, impulsivity, age, self-reported offending), the authors found that both vicarious and personal police contact were associated with within-individual decreases in future orientation.

3.3. Summary: How Background Factors Influence Crime Via Short-Term Mindsets

Drawing from evolutionary developmental models, we proposed that short-term mindsets, rather than reflecting a cognitive deficiency or pathology, can also develop in response to environmental circumstances. In the face of an uncertain future or poor prospects, present-oriented strategies and their accompanying short-term mindsets may form a reasonable (or contextually appropriate) response to circumstances. This is supported by empirical evidence showing that adverse neighborhoods and home environments can increase short-term mindsets, and that victimization and sanctioning experiences can generate similar effects. These findings lend credence to STMT’s hypothesis that several background risk factors of crime converge on their tendency to accentuate short-term mindsets, thus linking sociogenic perspectives on crime to individual differences explanations. That is, factors that have been identified in the developmental and life course literature as important correlates of crime, such as punitive and inconsistent parenting, broken families, parental conflict, high crime neighborhoods, dropping out of school, delinquent peers, and poverty, share a tendency to increase short-term mindsets, and such mindsets, in turn, increase the probability of subsequent delinquent behaviors. The possibility of such feedback loops also contradicts SCT, which considers between-individual levels of self-control largely fixed after childhood, in two ways. First, various factors other than parenting affect levels of self-control (and other indicators of short-term mindsets). Second, this can occur well beyond childhood into adolescence and young adulthood.

4. THE FOREGROUND: STATE VARIABILITY IN SHORT-TERM MINDSETS

Thus far, we have mainly focused on how different background risk factors relate to crime through short-term mindsets. However, as Topalli & Wright (2013) note, the background factors that put offenders at increased risk of offending, such as poverty, negative parenting, or adverse neighborhoods, are different from the more immediate circumstances in which decisions to commit a crime are contemplated and carried out. In this section, we review research suggesting that short-term mindsets play a critical role in crime causation at this proximate level as well. We discuss several proximate causes for crime, such as alcohol intoxication, sexual arousal, intense emotions, and drug use, and argue that they converge on a tendency to trigger or increase short-term mindsets by directing attention to the immediate present and, at sufficient levels of intensity, crowd out considerations of future consequences (e.g., Hofmann et al. 2009, Loewenstein 1996, Steele & Josephs 1990, van Gelder 2013). We refer to such time-varying mindsets as state-short-term mindsets, which can be endogenous or triggered by external factors, to distinguish them from more enduring individual differences, which we refer to as trait-short-term mindsets (see also Section 1). We view state- and trait-short-term mindsets as ends of a continuum, rather than binary categories.

Although states do not feature prominently in the literature on self-control and background risk factors of crime and delinquency, they run as a common thread through the ethnographic literature on active offenders (e.g., Anderson 2000; Hoffman 2004; Lofland 1969; Topalli & Wright 2013; Wright & Decker 1997; Shover 1996; Shover & Honaker 1992). In this section, after discussing some of the processes through which proximate correlates of crime increase short-term mindsets, we draw on this literature to explain how state-short-term mindsets can entrench offenders in cycles of shortsighted behavior that can produce enduring effects. We conclude the section by discussing how trait- and state-short-term mindsets are connected.

4.1. Triggered Short-Term Mindsets: Alcohol Intoxication, Emotions, and Substance Use

A shared characteristic of several important proximate correlates of criminal behavior, such as alcohol intoxication, sexual arousal, intense emotional states, and drug craving, is their tendency to trigger or accentuate short-term mindsets. That is, at sufficient levels of intensity such factors tend to restrict attention to the immediate present and obscure long-term considerations (Loewenstein 1996).

4.1.1. Alcohol intoxication. Alcohol, for example, saps the brain's executive function and impairs self-regulation by diminishing people's ability to consider the long-term consequences of their actions (Hofmann et al. 2009). Steele & Josephs (1990) coined the term alcohol myopia to describe the shortsighted information processing and the potentially destructive behavior that accompany alcohol intoxication: "Through the myopia it causes, alcohol may tie us to a roller-coaster ride of immediate impulses arising from whatever cues are salient" (Gottfredson & Hirschi 1990, p. 923). The role of alcohol in crime commission is both well-documented and impressively large. For example, a meta-analysis found that roughly half (48%) of all homicide offenders were under the influence of alcohol when they committed their crime (Kuhns et al. 2014). Similarly, half of all sexual assaults are committed under the influence of alcohol (Abbey et al. 2004, Barnard et al. 1979). Furthermore, alcohol use is not only associated with violent crime. For example, about a third of burglars admits to drinking alcohol before committing most of their offenses, with half of them consuming more than eight units of alcohol (Bennett & Wright 1984). The role of alcohol in crime commission is in sum pervasive. Beyond its tendency

to trigger short-term mindsets, another effect of alcohol is that it can intensify emotions, such as anger, predictive of criminal and antisocial behavior.

4.1.2. Emotions and visceral drive states. Intense emotions can trigger processes resembling those of alcohol intoxication in terms of lowering executive functioning, tying people's attention to the immediate present, and causing them to ignore or underestimate the longer-term consequences of their actions (van Gelder 2013). Emotions are adaptive responses to challenges that individuals face in their environments (Frijda 1988), and set in motion various psychological and physiological processes to prepare the body for action, such as dealing with threat (Tooby & Cosmides 2008). At very high intensities, however, emotions can flood consciousness and overwhelm cognitive processing and deliberative decision-making, thus reducing considerations of risk, including punishment (LeDoux 1996, Loewenstein & Lerner 2003, van Gelder 2013). Such intense states may result in seemingly reckless and impulsive behavior. As Zimring et al. (1973, p. 137) observe in their classic work on deterrence, "High degrees of emotional arousal may eclipse thoughts of future consequences by riveting all of the potential criminal's attention on his present situation."

It is worth distinguishing between decision-making under emotionally charged "hot" states and rational deliberation under affect-neutral "cool" cognitive states. The latter can generate a time perspective and allow for carefully weighing costs against benefits (Loewenstein et al. 2001). Hot states, in contrast, are set in motion by external triggers, tie attention to the here and now, and drive decision-making to meet immediate needs (e.g., Loewenstein 1996, Berns et al. 2007, Metcalfe & Mischel 1999, van Gelder 2013). Visceral drive states, such as sexual arousal, operate according to a similar logic as intense emotions and can crowd out virtually all goals other than that of mitigating the visceral factor and result in shortsighted decision-making (Loewenstein 1996). Like intense emotions, states of sexual arousal can exert strong effects on behavior, often with the actor being oblivious to their influence on their conduct (Ariely & Loewenstein 2006).⁵

4.1.3. Drug use and addiction. Shortsighted decision-making due to hot drive states also plays a role in addictive behaviors, including substance abuse and relapse (Berns et al. 2007). Substance abuse is endemic in offender populations (DeLisi et al. 2015) and intimately related to short-term mindsets. To illustrate, opioid drug users show higher discount rates compared to nonusers (Kirby et al. 1999), thus reflecting differences in trait-short-term mindsets. Moreover, they discount both drugs and money more steeply as a function of time lapsed since last consumption (Giordano et al. 2002, Perry & Carroll 2008), reflecting variation in state-short-term mindsets. In their review, Perry & Carroll (2008) observe that the relation between drug use and impulsivity appears to be reciprocal, with trait levels of impulsivity causing drug use, which, in turn, leads to higher levels of impulsivity. In a similar vein, there is also evidence that the relation between adolescent illicit drug use and delinquency is reciprocal (Mason & Windle 2002). We note that the relation between drug use and crime is also multifaceted and does not only relate to the cadre of addicts. In addition to driving people to crime to manage their habit, drugs, similar to alcohol, may also be consumed to reduce concerns about sanctions, to celebrate success, or to bolster courage before committing a crime (Shover 1991). As one participant in a study by Dickinson et al. (2024, p. 18) put it, "Psych yourself up to do it. . . Get so high, you be so fucking out of your mind that you don't care."

⁵We do not argue that in reducing consideration of future consequences, such intense emotions are necessarily maladaptive from an evolutionary perspective—it is conceivable that the behaviors produced by these emotions generate benefits for survival and reproduction in certain conditions (e.g., in a social context, advertising risk-proneness to establish a reputation with peers) (Fessler et al. 2014)—just that these emotions can be causes of criminal behavior, mediated by short-term mindsets.

4.2. The Short-Term Mindsets of Persistent Offenders

Ethnographic work on persistent street offenders provides us with some of the most vivid descriptions of how state-short-term mindsets operate and relate to crime. This research reveals how offending often occurs in the context of a highly present-oriented lifestyle (e.g., Dickinson et al. 2024, Hochstetler 2002, Katz 1991, Shover 1996, Shover & Honaker 1992, Wright & Decker 1997). Such lifestyles, beyond being characterized by prolific offending, typically also involve other behaviors reflective of a short-term mindset, such as gambling, heavy drinking, drug use, and reckless spending (Jacobs & Wright 1999, Topalli & Wright 2013). For example, Jacobs & Wright (1999, p. 155) write that many of the street offenders they interviewed “gambled, used drugs, and drank alcohol as if there were no tomorrow [and] typically demonstrate little or no inclination to exercise personal restraint. Why should they? Instant gratification and hedonistic sensation seeking are quite functional for those seeking pleasure in what may objectively be viewed as a largely pleasureless world. . . They view their future prospects as bleak and see little point in long-range planning. As such, there is no mileage to be gained by deferred gratification.” As one interviewee remarks: “I really don’t dwell on [the future]. One day I might not wake up. I don’t even think about what’s important to me. What’s important to me is getting mine [now].” Similar findings are reported in other ethnographic work (Brezina et al. 2009, Hochstetler 2002, Shover 1996, Shover & Honaker 1992, Topalli & Wright 2013).

Several authors have described this lifestyle as a vicious cycle in which the reckless spending habits of street criminals keep them perpetually under pressure to generate fast cash leading to crime, which in turn leads to further reckless spending and living life “in the fast lane” (Gibbs & Shelly 1982, Lemert 1953, Lofland 1969, Shover & Honaker 1992, Topalli & Wright 2013). The ebb and flow between this lifestyle and crime commission was also demonstrated by Felson and colleagues (2019). These authors used event calendar data to show that the offenders in their sample were more likely to engage in property crime and drug dealing during months in which they used hard drugs and alcohol and when they engaged in more frequent unstructured socializing. These results suggest a cyclical pattern with hedonistic activities leading to economic crime, and economic crime creating opportunities for more frequent hedonistic activity.

4.3. The Relation Between Trait- and State-Short-Term Mindsets

Trait- and state-short-term mindsets can be connected in at least three different ways. First, repeat or frequent exposure to situations that trigger state-short-term mindsets might produce enduring effects by increasing future exposures to such situations (Casey 2015, Quinn et al. 2011). For example, state-short-term mindsets may initially result from the acute effects of alcohol and drugs or cravings. Over time, when alcohol and drug use repeat and become habitual or chronic, this may result in more enduring changes in short-term mindsets and, hence, stabilization of individual differences (trait-short-term mindsets), with alcoholics and drug dependents showing increased short-term mindsets compared with nonaddicts (Davis et al. 2017, Perry & Carroll 2008, Quinn et al. 2011; see also Section 4.1.3). Similarly, unstructured unsupervised socializing with peers can lead to temporarily elevated levels of state-short-term mindsets, but frequent exposure to and interaction with peers in such circumstances can in the longer run also result in elevated levels of trait-short-term mindsets (Kübel et al. 2024). Additionally, one factor that increases short-term mindsets can lead to exposure to other factors that trigger similar effects; for example, hanging out with delinquent peers also increases the likelihood of exposure to illicit drugs, and—vice versa—illicit drug use can increase the likelihood of coming into contact with delinquent others.

Second, situations that trigger state-short-term mindsets can produce trait-short-term mindsets through repeat learning that investments in future reward do not pay off, irrespective of

whether exposure to such situations increases their future occurrence (Young et al. 2020; see also the discussion of experimental evidence in Section 3.1). For instance, a child might learn that their parents are often unavailable or unresponsive, that peers tend to break promises, and that teachers fail to deliver, and respond to each of these instances with state-like short-term mindsets. Over time, the child starts viewing other people as generally being unwilling or unable to help and, accordingly, the environment as uncontrollable and unpredictable, increasing levels of trait-short-term mindsets.

Third, even infrequent or one-off situations triggering state-short-term mindsets might produce trait-short-term mindsets (Young et al. 2020; see also Sections 3.2.2 and 3.2.3). For instance, experiencing a highly stressful or traumatic event (e.g., witnessing violent murder, getting arrested, being victimized) might not only trigger state-short-term mindsets (e.g., prioritization of immediate survival through a fight-or-flight response) but also have a lasting impact on trait-short-term mindsets through its enduring effects on physiological stress systems and mental models of the world, particularly the actions of other people.

Notably, whether it is through one-off or repeat learning, the impact of experiences on short-term mindsets need not be uniform across the lifespan; there might be sensitive windows during which experiences have a relatively large impact on later outcomes. For instance, particularly early in life, adverse experiences—such as caregiving deprivation (Gee et al. 2013, Humphreys et al. 2015) and unpredictable caregiving and unstable living environments (Xu et al. 2023)—appear to accelerate the species-typical shift in human development from exploration in childhood (i.e., learning about unfamiliar options that may lead to better outcomes in the future) to exploitation in adulthood (i.e., choosing the best, known option) (for reviews, see Callaghan & Tottenham 2016, Frankenhuys & Gopnik 2023, Tooley et al. 2021). This accelerated cognitive shift is consistent with the development of a present-oriented strategy when facing uncertain or poor future prospects.

4.4. Summary: State-Short-Term Mindsets and Persistent Offenders

Population heterogeneity explanations of crime suggest that an underlying trait (e.g., self-control) causes people to select into situations that are conducive to offending and expose them to proximate risk factors of crime (e.g., heavy drinking or drug use), which as a result are correlated with crime. In this section, we have argued that the reverse is also true; that is, states of intoxication, withdrawal, or arousal all increase short-term mindsets and make crime more likely to occur. Furthermore, such factors tend to cluster within the same individuals, and exposure to one proximate risk factor that triggers state-short-term mindsets (e.g., substance use) increases the likelihood of exposure to others (e.g., drinking alcohol in the presence of peers) through their shared tendency to dampen future thought and prioritize immediate gratification. Thus, preexisting differences in short-term mindsets can be amplified through selection into environments that increase exposure to background risk factors (see Section 3) and engagement in activities that further exacerbate such mindsets. A lack of social stability and the absence of conventional sources of support further fuel such mindsets (Jacobs & Wright 1999). The lives of persistent street offenders provide one of the most vivid illustrations of how short-term mindsets can operate through a self-reinforcing process that traps them in escalating cycles of offending and other problem behavior.

5. DISCUSSION

Although the importance of short-term thinking in crime causation has long been acknowledged by criminologists, our understanding of this concept and its role in the etiology of crime is still limited. Part of the reason for this, we believe, has been the dominance of SCT in criminology. As Burt (2020, p. 44) notes: “[SCT] has tethered the field to a unique conception of self-control and

the causal model of its operation. Within criminology, SCT has gained a near monopoly on the concept of self-control, such that almost everything associated with self-control and crime is seen as falling under the purview of SCT.” In our view, the dominance of SCT and its singular view of the construct of self-control has not only given rise to misunderstandings regarding its nature and properties but has also overshadowed significant associations between other constructs reflective of a short-term mindset and criminal conduct, and obscured the much more pervasive and intricate role of short-term mindsets in crime causation.

In this article, we proposed STMT as an alternative to SCT. STMT asks the question of how many established background and proximate risk factors of criminal behavior are related to each other and addresses this question by demonstrating that they have in common a capacity to increase or trigger short-term mindsets and, by implication, affect levels of self-control. We argued that short-term mindsets are the nucleus around which these risk factors revolve, with exposure to one risk factor and the accompanying short-term mindsets increasing the likelihood of exposure to other risk factors, resulting in a self-reinforcing process. Reviewing findings from both criminological research and other disciplines, we showed that STMT better aligns with the current empirical record than SCT.

STMT is also compatible with different theoretical criminological perspectives, including, but not limited to, life course perspectives, social learning theory, labeling, rational choice, and deterrence, and integrates population heterogeneity and state-dependence processes. In line with population heterogeneity, it assumes that an individual’s initial levels of short-term mindsets increase their risk of exposure to criminogenic events and environments, such as victimization, contact with the criminal justice system, and delinquent peers. In line with state dependence, STMT also assigns causal significance to such events and environments assuming that delinquency and its consequences mortgage the future and knife off future opportunities (Laub & Sampson 1993). As such, we proposed that short-term mindsets can form the connective tissue between individual-level perspectives and sociogenic views on crime. That is, we argued that certain criminogenic environments and experiences are related to crime precisely because they affect individual characteristics, i.e., by accentuating or reinforcing people’s short-term mindsets. This assumption is further strengthened by the fact that adverse and uncertain environments increase the probability of not only crime but also other problem behaviors characterized by immediate rewards and more long-term costs, such as substance and alcohol abuse (Pepper & Nettle 2017). There is, in other words, something more general about the nature of these environments that triggers changes in cognition that result in people preferring behaviors that provide immediate benefits, even if this means incurring (higher) costs in the long term. By virtue of STMT’s ability to meaningfully link individual-level perspectives and sociogenic explanations of crime by specifying the mechanism through which criminogenic environments, events, and experiences factors affect crime, it can provide the basis for an integrative paradigm in criminology.

Gottfredson & Hirschi (1990) formulated SCT as a general theory of crime that applies to all types of crimes, at all times, in all places. Similar to SCT, STMT is a general theory in the sense that it is broadly applicable and not restricted to a circumscribed set of specific crimes. However, unlike SCT, STMT does not purport to be the only explanation of crime; rather, it recognizes the possibility that certain crime-related phenomena are better explained by other processes than short-term mindsets. Future research may address the extent to which specific types of crime can be understood and predicted by STMT and which ones cannot, as well as how the theory performs relative to other theories of crime. We believe that STMT offers a fertile ground for comparative theory and hypothesis testing. To provide guidance, in the next section we offer several suggestions on how future research can advance with the operationalization and measurement of short-term mindsets.

5.1. Measurement of Short-Term Mindsets

How are short-term mindsets best measured? There is currently no single scale that has been validated in diverse populations and contexts, neither at the trait nor at the state level. Until a short-term mindsets scale is developed and validated, we suggest several complementary strategies for the measurement and operationalization of the concept. First, it is important to note that the diverging underlying theoretical assumptions imply that the measurement model of STMT differs from that of SCT. The latter assumes that self-control consists of a fixed set of elements, which together constitute it. This implies a formative measurement model. STMT, in contrast, assumes a latent variable, short-term mindsets, and treats traits—such as impulsivity, conscientiousness, and (low) future orientation—as indicators of that variable. This implies a reflective measurement model. Reflective models assume that the values of the indicators of a construct are caused by that construct. Hence, we expect the covariances between the indicators to be zero when the latent variable is partialled out—as values of indicators are correlated on the basis of being caused by the same thing. Also, whereas SCT assumes a fixed number of constituent (formative) elements, STMT does not assume a fixed number of (reflective) indicators. Each construct aligning with its definition can be used as a potential indicator.

Second, to further increase our understanding of how short-term mindsets are related to crime, research incorporating indicators of short-term mindsets should make explicit what type of indicator is being used. More specifically, it should specify whether the indicator under study is a motivational construct (e.g., a willingness to consider the future), a cognitive limitation (e.g., an inability to think ahead), a preference (e.g., a sensitivity to immediate rewards), a combination of these, or something else. Moreover, whenever possible, multiple indicators of short-term mindsets should be included in research designs. Such research can contribute to our conceptual understanding of short-term mindsets and shed light on associations between (different types of) short-term mindsets and (different types of) criminal behavior. Additionally, these associations could be examined for different age groups (e.g., early adolescence, mid-adolescence, young adulthood) to assess whether specific indicators gain or drop in prominence according to developmental stage. When considered together in research designs, indicators should be examined separately, rather than summed up into a single factor, in recognition of the fact that they are interrelated but distinct in meaning and impact (Deitzer et al. 2024, Steinberg et al. 2008), have different neural underpinnings and developmental trajectories (Forrest et al. 2019, Steinberg et al. 2009), and may explain unique variances in outcomes (Kübel et al. 2023).

Third, in cases where only broad scales, such as the Grasmick et al. (1993) self-control scale, are available in datasets, researchers are advised to use only those subscales or items that have temporal content and to discard the other subscales or items (see van Gelder et al. 2020). Similarly, when using measurement scales of constructs that also involve self-regulation, such as impulsivity and effortful control scales, researchers could consider selecting only those subscales or items that have temporal content and exclude those that capture the (in)ability to resist temptation as well as other items unrelated to short-term mindsets. This facilitates the interpretation of the relation between short-term mindsets and crime and other outcome variables and results in greater predictive accuracy and conceptual clarity.

Fourth, future research should examine associations between state-short-term mindsets and crime, which have been much overlooked in the criminological literature. One way to measure state variation and gain insight into the situational dynamics of short-term mindsets, proximate risk factors, and criminal behavior involves the use of ecological momentary assessment. This method involves the repeated (e.g., multiple times a day, at regular or random intervals) sampling of people's current behaviors and experiences—and potentially those of the individuals around them—in real time in their natural environments (Shiffman et al. 2008). Ecological momentary

assessment allows for capturing the (reciprocal) relation between events and activities, such as drug use and associating with delinquent peers, and short-term mindsets on very brief time intervals. Trait measures of short-term mindsets are ill-equipped to capture variation over short intervals and thus to measure state-short-term mindsets. Ecological momentary assessment allows for collecting immediate, context-specific, and ecologically valid data in minimally intrusive ways. The method is typically administered using a smartphone app, which offers the additional possibility of also unobtrusively measuring other relevant variables (e.g., proximity to entertainment areas, spatial-temporal movement). Research designs making use of ecological momentary assessment allow researchers to link state-short-term to trait-short-term mindsets to examine how the two are related and to map their interactions across time.

6. CONCLUDING THOUGHTS: LOOKING FORWARD

We conclude this article with some observations regarding how STMT relates to the exit from crime. We believe that STMT may not only offer a framework for understanding crime and its development but also provide some direction for understanding the desistance process. If short-term mindsets are not impervious to change and vary as a function of developmental and current context, as STMT suggests, it follows that engaging in temporally extended activities and getting exposed to environments that encourage and nurture future-oriented mindsets should have a dampening effect on crime. Factors contributing to desistance from crime, including turning points in the life course, such as entering into a stable marriage and gaining meaningful employment (Laub & Sampson 1993, 2003), may do just this. Marriage, for example, has been related to increases in conscientiousness, an indicator of (low) short-term mindsets (Roberts & Nickel 2021). Furthermore, being married leads to spending time away from factors associated with increased short-term mindsets, such as bars, drugs, and delinquent peers (Warr 1998). Moreover, Daly & Wilson (1997, p. 77) show that men who revert to unmarried status, due to divorce or being widowed, display elevated age-specific offending rates, arguing that they also “revert to a mindset vis-a-vis risk acceptance that is more like that of bachelors than that of married men,” which highlights the dynamic and fluctuating nature of short-term mindsets as argued by STMT. The successful exit from crime, in short, may be contingent on exiting the self-reinforcing cycle proposed by STMT.

Many of the factors contributing to desistance, including being in a (stable) marriage or relationship, are difficult, costly, or simply impossible to “treat” or “correct” in interventions. However, focusing on increasing future-oriented mindsets can be a feasible intervention point. Work and educational programs (or preventing school dropout), for example, may help provide a window toward the future and counteract short-term mindsets. In a similar vein, treating substance use or moving out of a delinquent peer group or context takes away triggers of short-term mindsets. Behavioral interventions could furthermore try to instill awareness of how different aspects characteristic of a criminal lifestyle contribute to short-term mindsets, and how they reinforce each other. Alternatively, intervention could focus on attempting to increase future-oriented mindsets more directly. Such interventions, if implemented early enough, may prevent youth from being exposed to risk factors that contribute to short-term mindsets and possibly prevent them from entering the crime cycle in the first place. There is experimental evidence that more future-oriented mindsets can be instilled through behavioral interventions with concomitant effects on delinquent and other types of self-defeating behavior (e.g., Augimeri et al. 2011; Piquero et al. 2010; van Gelder et al. 2015, 2022). The next challenge will be to improve such programs and to apply them at scale (Moffitt et al. 2011). We look forward to future work that engages with these questions and puts the assumptions of STMT further to the empirical test.

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