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Self-control stability and change for incarcerated juvenile offenders

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A B S T R A C T

Purpose: Few studies have examined self-control stability with samples of serious offenders. This study examined incarcerated juvenile offenders to determine (1) if changes in self-control occur during confinement and (2) whether self-control changes affect functioning inside the facility and reoffending after release.

Methods: The analysis used data from a sample of male and female juvenile offenders in Florida who were released from a residential program in 2010–11. Self-control and functioning inside the facility were measured with risk assessment data collected at the beginning and end of the residential confinement. Reoffending was assessed for the 12 months after release.

Results: Absolute and relative changes in self-control were common, and the absolute changes overwhelmingly involved improvement. This led to improved functioning inside the facility and decreased odds of adjudication for a new offense. Follow-up analyses revealed a key difference between males and females—for reoffending in particular, effects of self-control change were observed only among females.

Conclusions: Juvenile confinement in settings with evidence-based rehabilitation programming can produce self-control improvement. These improvements, in turn, are associated with contemporaneous improvements in behavior during confinement. These shifts also may lower recidivism after release, but this pattern appears less likely among males.

Much prior research has tested Gottfredson and Hirschi's argument that self-control levels are relatively fixed in the first decade of life (Burt, Simons, & Simons, 2006; Hay & Forrest, 2006; Na & Paternoster, 2012). These studies indicate that while self-control is fairly stable over time, absolute and relative changes occur for some individuals, and this can involve either favorable or unfavorable shifts (Higgins, Jennings, Tewksbury, & Gibson, 2009; Ray, Jones, Loughran, & Jennings, 2013). Also, self-control changes often are consequential for later offending (Burt, Sweeten, & Simons, 2014; Forrest & Hay, 2011). This research therefore indicates that while there is a powerful tendency toward stability, self-control development is a dynamic process that continues beyond the first decade of life.

It bears emphasizing, however, that these conclusions come mostly from research conducted with general population samples. Studies that focus exclusively on serious offenders are much less common (we later note the exceptions), and to date, just one study has examined self-control shifts for a sample of incarcerated offenders (Mitchell & MacKenzie, 2006). Such offenders should be a priority. As we discuss below, there are key theoretical issues at stake regarding the generalizability of the stability thesis to serious offenders. Although prevailing theory suggests that major self-control improvements are unlikely for this group (Gottfredson & Hirschi, 1990; Robins, 1966), other research indicates that prosocial changes are possible (Brame, Bushway, & Paternoster, 2003; Sampson & Laub, 2003). Serious offenders also are important to consider from a public policy standpoint. A small group of offenders often accounts for a disproportionate share of offenses in a given sample or jurisdiction (Farrington, Ohlin, & Wilson, 1986; Welsh et al., 2008; Wolfgang, Figlio, & Sellin, 1972), and these offenders place a heavy burden on the courts and correctional systems (Cohen & Piquero, 2009; DeLisi & Gatling, 2003). Such a pattern makes it a priority to know whether self-control improvements are possible and consequential among this group.

In this study, we address this issue by examining self-control stability and change for a sample of incarcerated juvenile offenders. The youth in our sample spent an average of 8 months in confinement in juvenile residential programs in Florida, and our data include measures of self-control collected near the beginning and end of the residential stay. We analyze these data to answer two research questions, and for both, we conduct follow-up analyses to determine if results vary by gender. First, do self-control levels change during confinement? We anticipate that they will and that the changes may include improvement. As we discuss below, this expectation follows from a key feature of juvenile residential confinement in Florida: All youth receive evidence-based services and treatments designed to affect individual

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qualities like self-control.

Our second research question involves the consequences of self-control change—when improvements occur, do they predict improvements in other key areas of life and behavior? We first focus on functioning during the residential stay by considering improvements in academics, the performance of program tasks, peer associations, prosocial attitudes, and the avoidance of aggression. Next, we test whether self-control improvement affects reoffending in the 12-month period after release. Prior research (e.g., Burt et al., 2006) suggests that self-control shifts can affect offending. However, such studies have not focused on incarcerated offenders, and as we discuss, the self-control improvements that emerge for this group in the controlled environment of the residential facility may not affect behavior after release.

These analyses can significantly inform research on self-control stability and change. Most notably, they will indicate the extent to which the stability thesis applies to those whose offending is serious enough to warrant residential confinement. Also, because our data contain self-control measures at the beginning and end of the residential stay, the analyses provide insight on the effects of institutionalization. This responds to recent suggestions that self-control theory should be examined with greater attention to its policy and justice system implications (DeLisi, 2011; Hay & Meldrum, 2016; Piquero, Jennings, Farrington, Diamond, & Gonzales, 2016). And last, because our data include indicators of recidivism after release, they are useful for establishing not just whether self-control is likely to change, but also, whether such changes influence later offending for this high-risk group.

1. Theory and research on the stability thesis

Gottfredson and Hirschi's (1990) stability thesis is well understood and is largely unchanged from the original statement in *A General Theory of Crime*. Gottfredson and Hirschi assumed that all individuals begin in a primitive state of lacking self-control. Children then develop self-control in response to social interactions with parents. When parents monitor behavior, recognize deviance when it occurs, and punish such behavior, children learn that deviance has consequences and that they must self-regulate. Parents vary, however, in how consistently they do these things, and these variations should explain individual differences in self-control that emerge in early life. Indeed, the differences evident by age 10 should persist into adolescence and then adulthood, in part because self-control affects selection into statuses and relationships (regarding peer groups, school, and family) that reinforce existing levels of self-control (Gottfredson & Hirschi, 1990, Ch. 7). The ultimate result is that "the differences observed at ages 8 to 10 tend to persist….Good children [those with self-control] remain good. Not so good children remain a source of concern to their parents, teachers, and eventually to the criminal justice system" (Hirschi & Gottfredson, 2001, p. 91).

In arguing for such strong stability, Gottfredson and Hirschi especially emphasize *relative* stability—one's level of self-control relative to similarly aged others should be stable over time. On absolute stability, Gottfredson and Hirschi appear open to the possibility of long-term change, seemingly expecting that within-individual improvements will be common. They note, for example, that "even the most active offenders burn out with time" and "socialization continues to occur throughout life" (Gottfredson & Hirschi, 1990, p. 107). That said, stability is the overwhelming theme of their discussion, and significant within-individual changes that alter the rank ordering of individuals are not expected. In Gottfredson and Hirschi's (p. 108) words, "the low self-control group continues over time to exhibit low self-control."

Different studies have tested these arguments in a variety of ways (see Barnes et al., 2016). Using repeated measures of self-control, many have examined stability coefficients that bear directly on relative stability by indicating how much relative rankings of individuals are maintained over time. These studies reveal moderate to high stability coefficients in the range of 0.40–0.70, with lower coefficients when the temporal gap between the two time periods is longer (Burt et al., 2006; Meldrum, Young, Hay, & Flexon, 2012; Turner & Piquero, 2002). Several studies have gone beyond stability coefficients to estimate group-based trajectory models with data that span more than two data points. Hay and Forrest (2006) provided one early such study, finding that roughly 80% of subjects were marked by strong absolute and relative stability from ages 7 to 15. This was especially common among those who started with the highest self-control at age 7. This prompted Hay and Forrest to conclude that for some children, strong self-control likely is developed prior to age 7. However, roughly 20% of the sample fit into groups marked by change, and this included groups for which self-control declined over time. Other trajectory studies have reached similar conclusions. Higgins et al. (2009), for example, found that while stability was the common pattern, change occurred as well, especially among one group (16% of the sample) that moved from high to moderate levels of self-control in moving from age 12 to 16. Quite similar results emerged in studies from Ray et al. (2013) and Jo and Bouffard (2014). The latter study is one of the few to estimate separate trajectories for males and females. They found that from age 10 to 14, males were marked by lower absolute levels of self-control, but the developmental trajectories during this period did not vary by sex.[1]

Burt et al. (2014) provided an additional trajectory analysis that extended the focus into early adulthood. Their analysis of two components of self-control—impulsivity and sensation-seeking—revealed much instability from ages 11 to 24, with trajectories differing between impulsivity and sensation-seeking in ways that supported a dual systems model of self-control development (Steinberg, 2008). Indeed, change was the norm for groups representing at least 50% of the sample. This matches a standard finding in psychological research on long-term changes in personality traits, including self-control-related traits like conscientiousness and agreeableness (Roberts & DelVecchio, 2000; Roberts, Wood, & Caspi, 2008). Roberts, Wood, and Caspi (2008, p. 382) determined that there is "unambiguous evidence," especially in long-term studies, that these traits change over time in ways that vary across individuals.

It bears emphasizing, however, that none of the research cited above was conducted with samples of serious offenders. Such studies are rare, but the exceptions are informative. Two of these studies (Barnes et al., 2016; Pirutinsky, 2014) used data from the Pathways to Desistance study. Its sample is comprised of previously adjudicated 14–18 year olds who were followed for 7 years. Many of these youth had committed felonies, and roughly 50% were in an institutional setting at the time of the baseline interview (Loughran et al., 2015). Pirutinsky (2014) found that within-individual improvements in self-control followed in part from increased religiosity, with this pattern partially explaining beneficial effects of increased religiosity on offending. The analysis from Barnes et al. (2016), on the other hand, is notable for its extensive approach in directly focusing on stability and change. This study used six alternative techniques for assessing relative stability (including several of those noted above), emphasizing that no technique is ideal for answering the critical question "how much stability is needed?" to support the stability thesis. Their analysis indicated that the overarching conclusion noted above—that relative stability is high but not perfect—also holds for the adjudicated youth in the Pathways study. They find, for example, that stability coefficients (when adjusted for measurement error) ranged from roughly 0.60–0.80,

[1] Some studies have considered not just whether self-control changes over time, but also what factors might explain such changes. This research has especially been interested in how shifts in social environments and relationships explain shifts in self-control. Burt et al. (2006), for example, found that improvements in self-control were associated with increases in attachment to teachers, the quality of parenting, and involvement with prosocial peers. Similar findings on shifts in parenting (Hay & Forrest, 2006) and peer associations (Meldrum, Young, & Weerman, 2012) have emerged in other studies. Changes in religiosity also are related to changes in self-control (Pirutinsky, 2014).