Discontinuity-induced nostalgia improves the odds of a self-reported quit attempt among people living with addiction☆

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ABSTRACT

Most people in need of behavior change do not take action. Moreover, it has proven difficult to motivate people to engage in behavior change. In two longitudinal experiments, among people living with addiction, we tested a heretofore unexamined route to motivating behavior change—heightening a person's sense that their addictive behavior has fundamentally changed the self (i.e., the addiction has created self-discontinuity). We hypothesized that self-discontinuity would motivate self-reported behavior change by inducing nostalgic reverie for the pre-addicted self. We also hypothesized that this mediational model would be moderated by addiction severity. In both Experiment 1 ($N = 180$ gamblers) and Experiment 2 ($N = 202$ drinkers), participants were exposed to a self-discontinuity manipulation and completed a nostalgia measure. One month later, participants were asked whether they had attempted to quit in the past 30 days. As hypothesized, discontinuity-induced nostalgia predicted self-reported attempts to quit, but only when addiction severity was high (i.e., disordered gamblers, problem drinkers). A moderated-serial mediation conducted with the aggregate of data from Experiments 1 and 2 showed that, when addictive behavior severity was high (but not when it was low), self-discontinuity increased the odds of a self-reported change attempt via nostalgia and ensuing readiness to change. The findings suggest that discontinuity-induced nostalgia may be a viability means to facilitate behavior change among people living with addiction.

1. Introduction

People find comfort in the belief that the self—at its core—remains stable despite life events and change (i.e., holding a sense of self-continuity; Chandler, 1994; Sani, 2008). In this light, it has been argued that self-continuity should be cultivated to improve health and well-being (Dunkel, 2005; Lampinen, Odegard, & Leding, 2004) and, conversely, self-discontinuity (i.e., a sense of disconnect between the past and present self) should be avoided (Chandler & Proulx, 2008; Milligan, 2003). However, people can and do undergo radical change—change that may not be for the betterment of the self. For example, addictive behaviors can yield fundamental negative psychological as well as physiological changes to the self (Shaffer & Albanese, 2005; Shinohara et al., 1999). In this context, a sense that the self has remained unchanged by an addictive behavior may be an impediment to change: why should the individual change if the self is unaffected by the addictive behavior? Conversely, the belief that an addictive behavior has resulted in fundamental negative self-change may motivate a desire to reclaim the favorable past self—reclamation that may be achieved through behavior change.

To be sure, behavior change is hard. Most people who make resolutions to change their problematic behaviors fail to produce a single change attempt (DiClemente et al., 1991). Miller and Rollnick (2002), for example, reported that only 15% of people take the necessary steps to remove a problematic behavior from their behavioral repertoire. This rate remains low despite the array of negative consequences associated with potentially problematic behaviors such as gambling or drinking (e.g., physical, psychological, and interpersonal problems; Amato & Rogers, 1997; Hall & Solowij, 1998; Lesieur & Custer, 1984). Thus, it is important to explore ways to facilitate behavior change among people engaged in addictive behaviors, and particularly among those living with addiction.

We put forth the supposition that people who feel their behavior has negatively altered their sense of self will become motivated to reclaim

the more positive past version of the self. Specifically, we explore the possibility that eliciting the sense that one's behavior has caused self-discontinuity will motivate self-reported behavior change. This idea is based on findings that people who perceive self-discontinuity experience nostalgia for the past self (Sedikides, Wildschut, Routledge, & Arndt, 2015). Nostalgia not only yields psychological benefits (Abeyta & Routledge, 2016; Vess, Arndt, Routledge, Sedikides, & Wildschut, 2012; Wildschut, Sedikides, Arndt, & Routledge, 2006), but also motivates a desire to reclaim the past self (i.e., the self that is free from addiction; Kim & Wohl, 2015). There is, of course, a fundamental difference between being ready to change and taking action to change (DiClemente et al., 1991): most people who are motivated to change do not act on their readiness. Moreover, there is a paucity of research that has identified means to help people overcome barriers to behavior change.

We tested the idea that discontinuity-induced nostalgia manifests in an attempt at behavior change over time. We restrict this contention, however, to those whose behavior has reached a problematic level (i.e., those high in addiction severity). People who do not engage in addictive behavior at a problematic level should not be swayed by a message that addictive behavior leads to self-discontinuity, because this message is less applicable to them. To assess the validity of the proposed moderated-mediation model of behavior change, we conducted two longitudinal experiments: one with a community sample of gamblers (Experiment 1) and one with a community sample of drinkers (Experiment 2). In doing so, we sought to extend current understanding about the benefits of self-discontinuity and nostalgia by demonstrating that these variables can influence self-reported behavior change.

1.1. Self-discontinuity as motivator for change

People experience self-discontinuity when they sense that there has been fundamental self-change (Chandler, 1994; Iyer & Jetten, 2011; Vignoles, 2011). Such a self-perception creates instability, confusion, and inconsistencies in morals and values (Dunkel, 2005; Lampinen et al., 2004; Milligan, 2003; Sani, 2008), as well as discontent with the self (Davis, 1979; Sedikides, Wildschut, Gaertner, Routledge, & Arndt, 2008). Moreover, people who experience self-discontinuity are more likely to engage in self-harm (e.g., suicide; Chandler, Lalonde, Sokol, Hallett, & Marcia, 2003). Perhaps unsurprisingly, self-discontinuity is typically framed as a psychological state that should be averted (Chandler & Proulx, 2008; Milligan, 2003).

Within clinical psychology, however, some popular schools of therapeutic thought (e.g., Motivational Interviewing; Miller & Rollnick, 2002) maintain that clients should be assisted in working through their unwillingness to change. The therapist helps the client to detect possible contradictions between their current actions and their personal standards or goals. The purpose of focusing the client on such self-relevant discrepancies is to heighten their motivation to engage in behavior change (Fredrickson, 2000). Put differently, the treatment provider leverages the experience of self-discontinuity to motivate clients to change (Miller & Rollnick, 2013).

Indeed, there is growing understanding in the addiction literature that people living with addiction can come to see that their identity (i.e., one's sense of self) has been fundamentally altered by their addictive behavior (Best et al., 2016; Dingle, Cruwys, & Frings, 2015; Frings & Albery, 2015; Hughes, 2007; McIntosh & McKeganey, 2000; Waldorf & Biernacki, 1981). Importantly, their addictive behavior comes to represent an identity loss or spoilage—the addiction is framed as undermining their sense of self in terms of, for example, a father, an accountant, or a hockey player (Dingle et al., 2015). The desire to repair their spoiled identity (i.e., reduce self-discontinuity) creates motivation for behavior change (Hughes, 2007; Waldorf & Biernacki, 1981).

Providing anecdotal support for the benefits of self-discontinuity for behavior change, Nuske and Hing (2013) found that clients in treatment for disordered gambling were more likely to initiate behavior

change when they became cognizant of the discontinuity between their past, non-addicted self and their present, addicted self. Crucially, Kim and Wohl (2015) subsequently demonstrated that a self-discontinuity induction increased readiness to change among problem gamblers (Experiment 1) and problem drinkers (Experiment 2). In particular, these researchers focused participants' attention on how the self has changed (or remained unchanged) as a result of their addictive behavior. When participants' attention was focused on how the self changed (compared to remaining unchanged) due to their addictive behavior, they were more likely to contemplate behavior change. Additionally, Kim, Wohl, Salmon, and Santesso (2017) found that self-reported self-discontinuity motivated people toward change even when controlling for known barriers to change (i.e., shame, guilt, self-stigma about engaging in the addictive behavior). Thus, making salient and amplifying discontinuities within the self builds momentum toward change. Unknown, however, are the mechanism that builds this momentum for change and the downstream consequences for behavior change (i.e., an attempt to rid the self of the addictive behavior).

1.2. The power of nostalgia

Why might self-discontinuity motivate behavior change? There is a growing body of evidence that self-discontinuity elicits nostalgic reverie (i.e., a sentimental longing) for an earlier self (Best & Nelson, 1985; Milligan, 2003; Sedikides et al., 2016). Sedikides et al. (2015), for example, found that people who experienced negative life events (e.g., relocation, layoff) felt nostalgic for their life prior to the occurrence of the negative event. Importantly, nostalgia also engenders approach motivation (Abeyta, Routledge, & Juhl, 2015; Sedikides et al., in press; Sedikides & Wildschut, 2016; Stephan et al., 2014), thus readying oneself for behavior change.

According to Berg and Miller (1992), people living with addiction who seek behavior change via therapy refer to their past nostalgically when asked to describe a future without the addiction. Such *looking back* is encouraged within the Motivational Interviewing framework to help the client build momentum for change (Miller & Rollnick, 2002)—a contention supported by empirical work. Specifically, Kim and Wohl (2015) found that nostalgia was the mechanism by which a sense of self-discontinuity (compared to self-continuity) increased readiness to change among people living with addiction, thus providing preliminary support for the idea that self-discontinuity facilitates behavior change via nostalgia. Put otherwise, nostalgic reverie for a past without addiction may help prepare the self for change.

Still, there is often a large chasm between recognizing that behavior change is needed and making a change attempt (Ajzen & Fishbein, 1977; DiClemente & Prochaska, 1982; Prochaska & DiClemente, 1983). Indeed, a defining characteristic of addiction is the failure to change despite understanding that change is both possible and in one's best interest (American Psychiatric Association, 2013). As DiClemente (2006, p. 4) stated, "change is the antithesis of addiction." Yet, people who engage in addictive behaviors can and sometimes do change for the better. Unfortunately, little is known about the process that moves people from thinking about taking action to attempting behavior change.

We contend that discontinuity-induced nostalgia may facilitate behavior change, but only to the extent that the person engages in the behavior at a problematic level. Let us consider the case of gambling, a common form of entertainment practiced in a controlled manner by the majority of the population (Wiebe, Single, & Falkowski-Ham, 2001). Despite its recreational appeal, a minority fail to limit their involvement, and in turn experience adverse psychological, social, and physical health consequences (Burge, Pietrzak, Molina, & Petry, 2004). These disordered gamblers are likely to feel that gambling has fundamentally altered their sense of self, and will thus experience nostalgic reverie for the self that existed before gambling became problematic. This nostalgic reverie for the pre-addicted self should lead to actions aimed at