

Aspiration fuels willpower: Evidence from the addiction literature

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Abstract

Ainslie identifies two possible motivational sources for resolve: “thinking categorically” and “intertemporal bargaining.” Ainslie opts for intertemporal bargaining, adding that thinking categorically has no motivational power. The most researched instance of willpower is remission from addiction. This literature shows that aspirations for a more desirable identity and comfortable lifestyle motivate remission. In other words, “thinking categorically” drives willpower.

An essential feature of the psychology of willpower is the determination to get something done. According to Ainslie, this factor has two possible sources: “to think categorically” and “intertemporal bargaining.” He opts for intertemporal bargaining, adding that thinking categorically has no motivational punch – why do it? However, research on addiction encourages the claim that, to make sense of willpower, we need to include the capacity to “think categorically.” This conclusion does not preclude Ainslie's approach, rather it calls for expanding it. But before, I present the case for “thinking categorically,” some general observations and definitions are in order.

The empirical and conceptual foundation for the target paper is research on hyperbolic discount functions. Their mathematical properties make it possible for a smaller-sooner reward to temporarily have a higher value than a larger-later reward. This provides a handy account of preference reversals, impulsivity, and self-control. Moreover, hyperbolic discount curves describe the results of hundreds of experiments in which humans and nonhumans chose between smaller-sooner and larger later-rewards – often opting for the specious one. These findings are the basis for Ainslie's account of willpower.

Now the definitions: As in the target article, willpower is the capacity to reject a specious reward, resolve is the determination to get something done, and intertemporal bargaining is an internal process in which multiple selves, each attached to their preferred time horizon, jockey for precedence. For instance, imagine, one voice lobbying for a cookie now and exercise tomorrow and a competing voice extolling the benefits of exercise now and a cookie later. The referents for “thinking categorically” include a particular rate of consumption, say, six drinks an evening, the social and economic relations that accompany rates of consumption, say, going to the liquor store 5 days a week, and the identity that accompanies a lifestyle in which drinking plays a large role: “I’m an alcoholic.”

The addiction research literature provides a strategic test of Ainslie's account of willpower. Remission is central to the addiction experience (e.g., Heyman, [2009](#)), it is the most researched instance of willpower, and the target article mentions it more than two dozen times. But first, we need to review the delay discounting account of addiction.

From the viewpoint of hyperbolic discount curves, getting high on drugs is the smaller-sooner reward and sobriety is the larger-later reward. Accordingly, an addict is someone who prefers sobriety, but chooses getting high because the mathematics of hyperbolic delay curves make the smaller-sooner reward temporarily more valuable than the larger-later reward. Thus, addicts are those who again and again fall victim to specious rewards – never learning to correct their mistakes. In support of this account, experiments reveal that heroin addicts have steeper discount functions than non-heroin addicts (Kirby, Petry, & Bickel, [1999](#)), and Harvard undergraduates who smoke regularly have steeper discount curves than Harvard undergraduates who smoke just on weekends or not at all (Heyman & Gibb, [2006](#)). Nevertheless, crossing, hyperbolic discount curves (e.g., Figs. 1 and 2 of the target article) do not adequately model addiction or remission. Rather, we need to consider addiction as a rate of drug consumption, that the temptation to use drugs reflects visceral factors, and that the motivation to quit drugs (willpower) reflects the user's aspiration with regard to the sort of person they want to be and the lifestyle they hope to achieve. What follows is a sampling of the findings that lead to these conclusions.

(1) In order for drug use to take place frequently enough to meet the criteria for dependence, the user must plan ahead, engage in subterfuge, establish supply chains, and as conditions change, revise his or her plans. This may not take as much planning as maintaining a job or family, but maintaining an addiction is not, as in the discounting experiments, a series of independent trials between temporally offset rewards. Rather, “addiction” refers to a distribution of drug choices; the temporal order of the outcomes matters little (Herrnstein & Prelec, [1992](#); Heyman, [2009](#)).

(2) People take drugs for the visceral and unique pleasures they provide. Consider the following reports on initial heroin experiences.

Raffaella is an 18 years old woman from London. She reflects on her first heroin experience as follows (Fletcher & Mayle, [1990](#)): ... the smack hit me ... filling me up with a sensation that was like nothing I'd ever felt before.

Silver reporting on his first heroin experience, writes (*Erowid*, <http://www.erowid.org>; Heyman, 2009): “People always try to put into words the feeling smack brings you ... that's just the problem ... it doesn't ... It was the most intense nothingness there ever was.”

Umber who is 26 years old at the time of his interview reports (Hanson, 1985): “I found complete satisfaction ... I felt exhilarated ... It was cool ... the ultimate high.”

According to the language of these reports (e.g., “intense nothingness”), the heroin experience is a visceral category all its own. This is what tempts the user.

(3) In support of the above observations, ex-addicts explain their motivation for quitting (an instance of willpower) in terms of their lifestyle aspirations and how they would like to think of themselves. Consider the following examples.

Scott had been a daily heroin user for about 4 years (Biernacki, 1986). He no longer could afford his habit. In his words: “to deal I'd have to be available all the time at strange hours. I couldn't have people call me up at work to score ... It finally became clear that this was the end. I was going to have to make a big change, of my whole life.”

Wendy explains quitting heroin in the following terms (Jorquez, 1983). “What am I doing? God did not put me here on earth to be using heroin! ... I began to have these powerful feelings for my parents to be proud of me again.”

David Premack (who made significant contributions to behavioral, cognitive, and developmental psychology) was a two-pack a day smoker for about 20 years, but then quit – all at once (1970). The turning point was the recognition that he had left his kids standing in the rain in order to buy a pack of cigarettes. Spotting them in his rearview mirror, he writes, “with this glance came the realization that [I] was putting cigarettes ahead of [my] children ... Humiliated and ashamed [I] turned around, picked up the kids and quit smoking.”

In these stories, the issues are identity, values, and lifestyle – not which option shows up first. This makes perfect sense. Given a series of drug episodes, drug use comes both before and after periods of sobriety.

This analysis does not preclude contexts in which internal debates between multiple selves, each linked to a favored time horizon, motivate willpower. However, it does show that Ainslie is wrong to say that thinking categorically does not provide the motivation to resist temptations. Thus, a more complete account of willpower would include intertemporal bargaining and thinking categorically.

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Conflict of interest

I have no conflicts of interest.

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